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APPROVED
By Olivia Yu at 1:45 pm, Sep 28, 2017

NMOCD approves of the remedial activities conducted for BGT closure and 1RP-4408. Approval is also granted for the proposed additional remediation. For the excavation B area covered under 1RP-4408, discrete samples are required.

September 13, 2017

Dr. Tomas Oberding
New Mexico Energy, Minerals and Natural Resources Department
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

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

Re: Remediation Summary and Proposed Remediation Strategy
Field Scrubber Dump Tanks & 1RP-4408
Energy Transfer Company's Jal #3 Gas Plant
UL "E", Section 33, Township 24 South, Range 37 East
Lea County, New Mexico

Introduction and Background Information

TRC Environmental Corporation (TRC) has prepared the following *Remediation Summary and Proposed Closure Strategy* in regard to recent field activities conducted at the "Field Scrubber Dump Tanks" below-grade tanks (BGTs) site at Energy Transfer Company's (ETC) Jal #3 Gas Plant. The Jal #3 Gas Plant is located in Unit Letter "E" of Section 33, Township 24 South, Range 37 East in Lea County, New Mexico. The "Field Scrubber Dump Tanks", were located adjacent to one another immediately west of the Jal #3 Gas Processing Plant. The site consists of the northern field scrubber dump tank, which could be described as 210-barrel (bbl) steel tank and the southern field scrubber dump tank, which could be described as a 210-bbl fiberglass tank. Each of the BGTs were formerly utilized to contain pipeline liquids. In addition, there are three (3) excavations (Excavation A, Excavation B and Excavation C) measuring approximately three (3) to four (4) feet (ft.) in depth adjacent to and in the vicinity of the BGTs. The shallow excavations are related to the remediation of a previous BGT overflow release (1RP-4408) conducted by an alternate environmental contractor which is no longer affiliated with the site. Original field notes and laboratory analytical data are not readily available.

Review of the New Mexico Water Rights Reporting System (NMWRRS) online database indicated depth to groundwater information is not available for Section 33, Township 24 South,

Range 37 East. Review of a depth to groundwater gradient map utilized by the NMOCD indicates groundwater is estimated to be encountered at approximately 220 ft. below ground surface (bgs).

Remediation Summary

On July 18, 2017, TRC collected soil samples from the floor and sidewalls of each of the open excavations and submitted the soil samples to the laboratory for analysis of benzene, BTEX, TPH and chloride. Laboratory analytical results indicated benzene, toluene, ethylbenzene, total xylenes (BTEX), total petroleum hydrocarbon (TPH) and chloride concentrations were below the NMOCD Recommended Remediation Action Levels (RRAL) in each of the submitted soil samples, with the exception of soil Exc. B South Sidewall, which exhibited a TPH concentration of 5,520.1 milligrams per kilogram (mg/kg). Tables summarizing "Concentrations of benzene, BTEX, TPH and chloride" are attached.

On August 4, 2017, ETC submitted a *Proposed Closure Strategy – Field Scrubbers* (*Closure Strategy*) to the New Mexico Oil Conservation Division (NMOCD) proposing field activities designed to advance the field scrubber BGTs toward an NMOCD-approved closure. The *Closure Strategy* proposed closing the BGTs by removing the remaining contents from each of the BGTs, disposing of the contents at an NMOCD-permitted facility, removal of the BGTs, conducting an inspection of the bottom and sides of each of the BGTs along with the adjacent soil. In addition, the *Closure Strategy* included the collection of a composite soil sample beneath each of the BGTs former location. The *Closure Strategy* was subsequently approved.

On August 7, 2017, representatives of the NMOCD, TRC and ETC met to discuss the site. During the meeting, it was determined that the open excavations adjacent to and in the vicinity of the BGTs would be remediated in accordance with the NMOCD *Guidelines for the Remediation of Leaks, Spills and Releases.*

On August 23, 2017, excavation activities commenced. Impacted soil in the area represented by soil sample Exc. B South Sidewall was excavated and stockpiled on-site, atop an impermeable polyurethane liner. Upon advancing Excavation C toward the south, one (1) soil sample (Exc. B SSWb) was collected and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride. Laboratory analytical results indicated benzene, BTEX and chloride concentrations were below the NMOCD RRAL. Soil sample Exc. B SSWb exhibited a TPH concentration of 12,186.4 mg/kg. In addition, delineation trenches were advanced in the floors of the three (3) open excavations. During the advancement of the delineation trench, one (1) soil sample was collected from the base of each trench approximately five (5) ft. beneath the current grade. The collected soil samples were submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride. Laboratory analytical results indicated benzene, BTEX, TPH and chloride concentrations were below the NMOCD RRAL in each of the submitted soil samples.

On August 24, 2017, as per the approved *Closure Strategy*, the northern, steel BGT was removed utilizing mechanical equipment. Upon removing the BGT, a visual inspection was conducted on the base and sides of the BGT to search for evidence of a release. During the inspection, the tank appeared to be intact and no evidence of failures were discovered. In addition, the adjacent soils were inspected for stains or excessive moisture. The observed soil beneath the steel BGT did not

exhibit staining or excessive moisture; slight staining was noted in the south sidewall of former steel BGT location. As per the approved *Closure Strategy,* one (1) five-point composite soil sample (N. BGT Floor @ 18') was collected from soil beneath the tank's former location and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride concentrations. Laboratory analytical results indicated benzene, BTEX, GRO+DRO, TPH and chloride concentrations were below the *Closure Criteria for Soils beneath BGTs, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed* for sites where the depth below the bottom of pit to groundwater is greater than 100 ft.

In addition, four (4) sidewall soil samples (N. BGT NSW, N. BGT ESW, N. BGT SSW and N. BGT WSW) were collected from the adjacent sidewalls and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride concentrations. Laboratory analytical results indicated benzene concentrations were less than the laboratory reporting limit (RL) in each of the submitted soil samples. BTEX concentrations ranged from less than the laboratory RL in soil samples N. BGT NSW and N. BGT WSW to 9.664 mg/kg in soil sample N. BGT SSW. TPH concentrations ranged from less than the laboratory RL in soil samples N. BGT NSW and N. BGT WSW to 1,932 mg/kg in soil sample N. BGT SSW. Chloride concentrations ranged from 21.7 mg/kg in soil sample N. BGT NSW to 104 mg/kg in soil sample N. BGT SSW. Benzene, BTEX, TPH and chloride concentrations were below the NMOCD RRAL in each of the submitted soil samples.

On August 28, 2017, the southern, fiberglass BGT was removed utilizing mechanical equipment. Upon removing the BGT, a visual inspection was conducted on the base and sides of the BGT to search for evidence of a release. During the inspection, the tank appeared to be intact and no evidence of failures were discovered. In addition, the adjacent soils were inspected for stains or excessive moisture. Soil beneath the fiberglass BGT exhibited slight staining but no excessive moisture. Staining was also observed in the northern, western and eastern sidewalls of former fiberglass BGT location. A portion of the staining appeared to be related to anoxic conditions as opposed to hydrocarbon staining. As per the approved *Closure Strategy,* one (1) five-point composite soil sample (S. BGT Floor @ 18') was collected from soil beneath the tank's former location and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride concentrations. Laboratory analytical results indicated benzene, BTEX, TPH and chloride concentrations were below the *Closure Criteria for Soils beneath BGTs, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed* for sites where the depth below the bottom of pit to groundwater is greater than 100 ft. The combined GRO+DRO concentrations exceeded the *Closure Criteria for Soils beneath BGTs, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed* for sites where the depth below the bottom of pit to groundwater is greater than 100 ft.

In addition, four (4) sidewall soil samples (S. BGT NSW, S. BGT ESW, S. BGT SSW and S. BGT WSW) were collected from the adjacent sidewalls and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride concentrations. Laboratory analytical results indicated benzene concentrations were less than the laboratory RL in each of the submitted soil samples, with the exception of S. BGT ESW, which exhibited a benzene concentration of 15.6 mg/kg. BTEX concentrations ranged from 9.78 mg/kg in soil sample S. BGT SSW to 135.04 mg/kg in soil sample S. BGT ESW. TPH concentrations ranged from 977.5 mg/kg in soil samples S. BGT SSW to

20,200 mg/kg in soil sample S. BGT ESW. Chloride concentrations ranged from 22.5 mg/kg in soil sample S. BGT WSW to 313 mg/kg in soil sample S. BGT NSW. Benzene, BTEX, TPH and chloride concentrations were below the NMOCD RRAL in each of the submitted soil samples, with the exception of soil samples S. BGT ESW and S. BGT WSW, which exhibited TPH concentrations of 20,200 mg/kg and 5,4321 mg/kg, respectively.

Proposed Activities

ETC proposes the following field activities designed to advance the Field Scrubber Dump Tank site toward an NMOCD-approved closure:

- Advance the floor of the excavation in the area represented by soil sample S. BGT Floor @ 18', until laboratory analytical results from confirmation soil samples indicate TPH concentrations are below the *Closure Criteria for Soils beneath BGTs, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed* for sites where the depth below the bottom of pit to groundwater is greater than 100 ft.

- Advance the sidewalls of the excavation in the area represented by soil samples S. BGT ESW, S. BGT WSW and Exc. B SSWb until laboratory analytical results from confirmation soil samples indicate BTEX and/or TPH concentrations are below the NMOCD RRAL.

- Transport excavated material to an NMOCD-approved disposal facility.

- Upon receiving laboratory analytical results from confirmation soil samples and NMOCD permission, backfill the three (3) excavated areas and former BGT locations with locally sourced, non-impacted material.

Upon completion of the above mentioned activities, *Remediation Summaries* will be prepared detailing field activities and laboratory analytical results from confirmation soil samples.

If you have any questions, or if additional information is required, please feel free to call Rose Slade (ETC) at 210-403-6525 or myself at 432-520-7720 (office) or 432-466-4450 (cell).

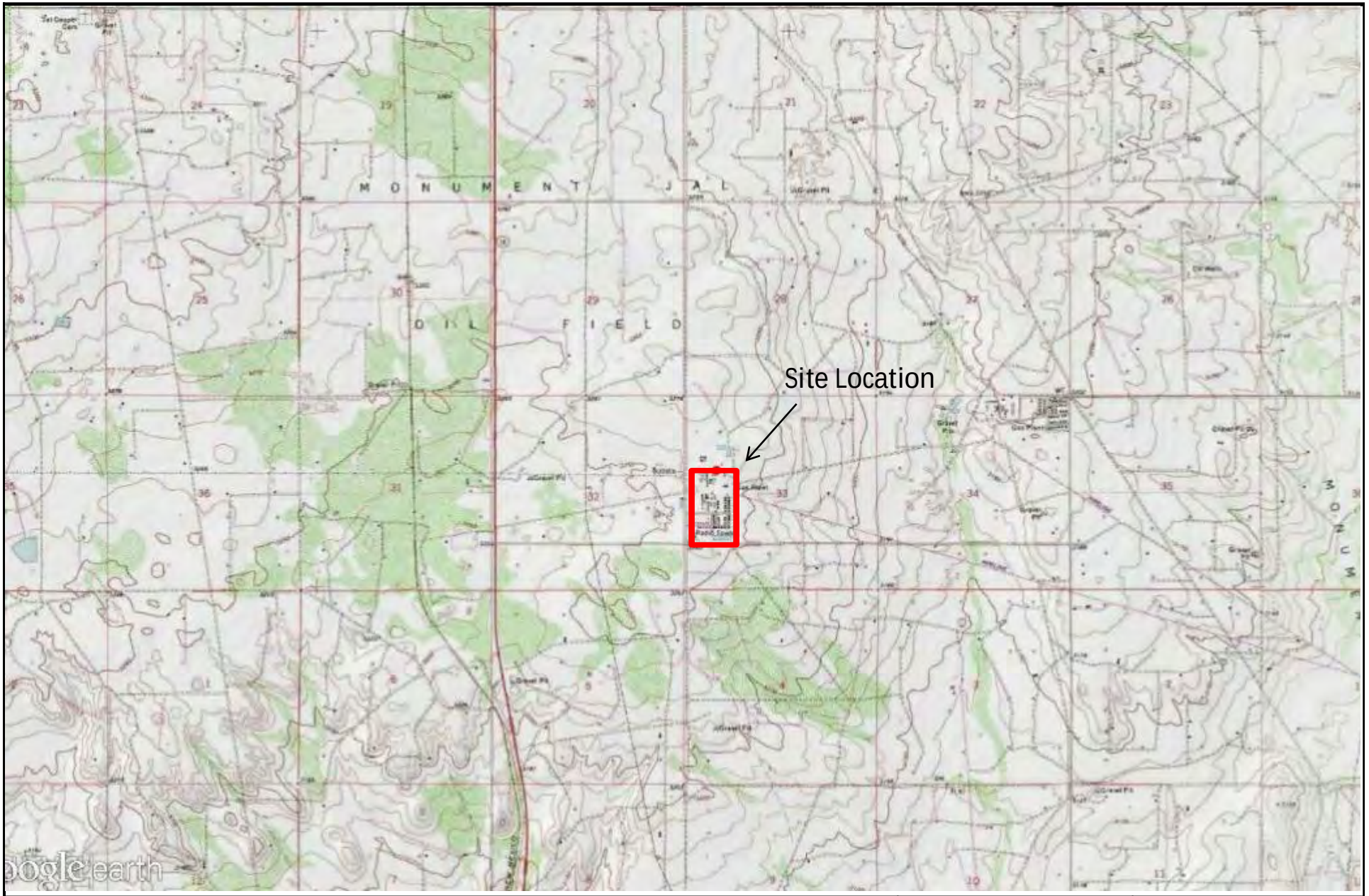
Respectfully submitted,

Joel Lowry
Senior Project Manager
TRC Environmental Corporation
Corporation

Jeffrey Kindley, PG
Senior Project Manager
TRC Environmental

Attachments:
Figure 1 – Site Location Map
Figure 2 – Site & Location Map (BGTs)
Figure 3 – Site & Location Map (1RP-4408)
Figure 4 – Site & Location Map (Combined)
Table 1 – Concentrations of benzene, BTEX, TPH and Chloride in Soil (BGTs)
Table 2 – Concentrations of benzene, BTEX, TPH and Chloride in Soil (1RP-4408)
Photographic Log
Laboratory Analytical Reports

cc: File



LEGEND:

4000 2000 0 2000 4000

Distance in Feet

Figure 1

Site & Sample Location Map
ETC Field Services, LLC
Jal #3 BGTs
Lea County, NM

Scale 1" = 4,000'	
Drafted By: JL	Checked By: CS
Draft: July 28, 2017	
Lat. N 32.173676 Long. W102.173696	
Sec. 33 T24S R37E	
TRC Proj. Nos.: 283490, 284097	

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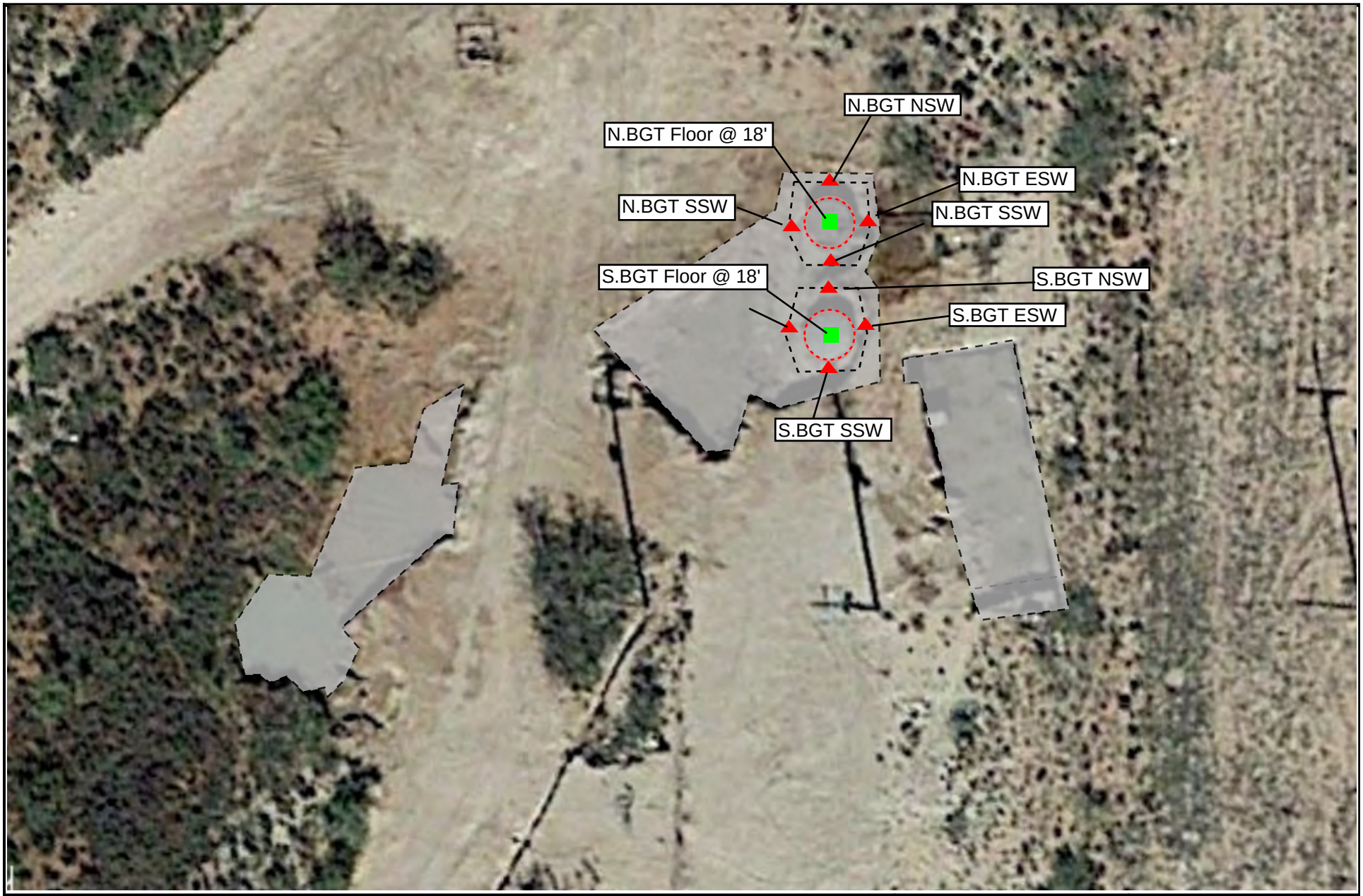

LEGEND:

- "Floor" Sample Location
- "Sidewall" Sample Location
- Excavated Area
- Former Below-Grade Tank

Figure 2

Site & Sample Location Map
ETC Field Services, LLC
Jal #3 - BGTs
Lea County, NM

Scale 1" = 30'	
Drafted By: JL	Checked By: CS
Draft: July 28, 2017	
Lat. N 32.173676 Long. W102.173696	
Sec. 33 T24S R37E	
TRC Proj. Nos.: 283490	

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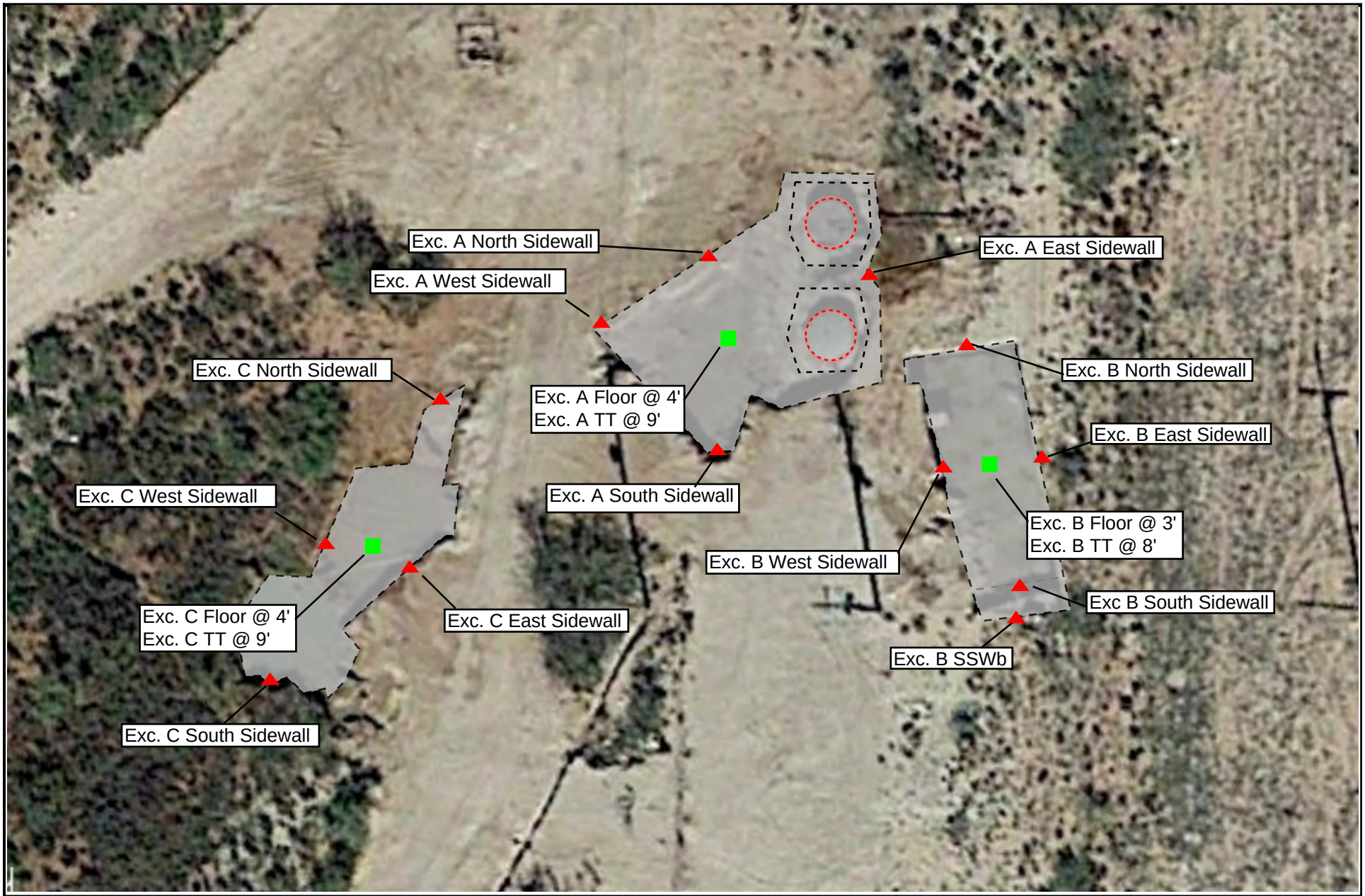

LEGEND:

- "Floor" Sample Location
- "Sidewall" Sample Location
- Excavated Area
- Former Below-Grade Tank

Figure 3

Site & Sample Location Map
ETC Field Services, LLC
Jal #3 - Open Excavations
Lea County, NM

Scale 1" = 30'	
Drafted By: JL	Checked By: CS
Draft: July 28, 2017	
Lat. N 32.173676 Long. W102.173696	
Sec. 33 T24S R37E	
TRC Proj. Nos.: 283490	

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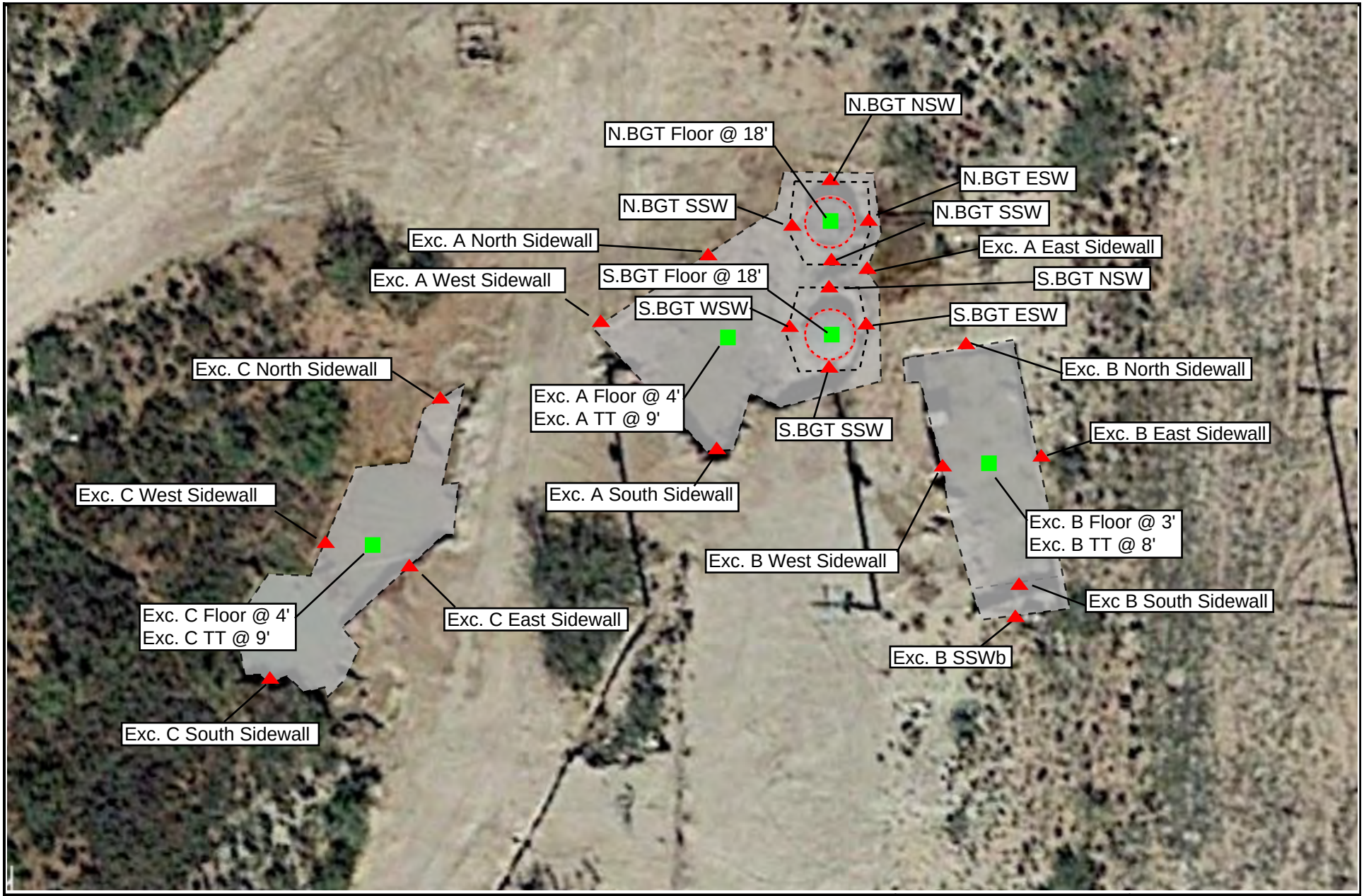

LEGEND:

- "Floor" Sample Location
- "Sidewall" Sample Location
- Excavated Area
- Former Below-Grade Tank

Figure 4

Site & Sample Location Map
ETC Field Services, LLC
Jal #3 - Cumulative
Lea County, NM

Scale 1" = 30'	
Drafted By: JL	Checked By: CS
Draft: July 28, 2017	
Lat. N 32.173676 Long. W102.173696	
Sec. 33 T24S R37E	
TRC Proj. Nos.: 283490	

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TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH, AND CHLORIDE IN SOIL
JAL #3 FIELD SCRUBBER DUMP TANK - BELOW-GRADE TANKS
ETC FIELD SERVICES, LLC
LEA COUNTY, NM

SAMPLE LOCATION	SAMPLE DATE	SAMPLE DEPTH (inches)	STATUS	Methods: EPA SW 846-8021B, 5030						Methods:				Method:
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	m,p, XYLENE (mg/Kg)	o-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	EPA SW 846-8015M				E300
										GRO (mg/Kg)	DRO (mg/Kg)	ORO (mg/Kg)	TOTAL TPH (mg/Kg)	CHLORIDE (mg/Kg)
N.BGT Floor @ 18'	8/28/2017	18'	In-Situ	<0.00199	0.0223	0.0773	0.0812	0.160	0.3408	26.5	345	110	481.5	88.9
S. BGT Floor @ 18'	8/28/2017	18'	In-Situ	<0.202	0.443	0.661	4.46	2.03	7.594	**264**	**979**	249	1,492	105
Closure Criteria for Soils beneath BGTs, Dry Pads Associated with Closed-Loop Systems and Pits where Contents are				**10**	**-**	**-**	**-**	**-**	**50**	**1,000**		**-**	**2,500**	**600**

TABLE 2

CONCENTRATIONS OF BENZENE, BTEX, TPH, AND CHLORIDE IN SOIL
JAL #3 FIELD SCRUBBER DUMP TANK - RELEASE
ETC FIELD SERVICES, LLC
LEA COUNTY, NM

SAMPLE LOCATION	SAMPLE DATE	SAMPLE DEPTH (inches)	STATUS	Methods: EPA SW 846-8021B, 5030						Methods:				Method:
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	m,p, XYLENE (mg/Kg)	o-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	EPA SW 846-8015M				E300
										GRO (mg/Kg)	DRO (mg/Kg)	ORO (mg/Kg)	TOTAL TPH (mg/Kg)	CHLORIDE (mg/Kg)
Exc. A Floor @ 4'	7/18/2017	4'	In-Situ	11.5	7.71	4.30	12.1	2.19	37.8	1,420	1,190	<250	2,610	81.3
Exc. A North Sidewall	7/18/2017	3'	In-Situ	<0.0194	0.0426	0.0233	0.0523	<0.0194	0.1182	<3.88	516	<250	516	222
Exc. A East Sidewall	7/18/2017	3'	In-Situ	<0.0180	0.0180	0.242	<0.0359	<0.0180	0.260	19.9	591	<250	611	44.8
Exc. A South Sidewall	7/18/2017	3'	In-Situ	0.0916	0.311	0.0916	0.562	0.0916	1.1478	<7.55	4,250	584	4,834	52.9
Exc. A West Sidewall	7/18/2017	3'	In-Situ	<0.0197	<0.0197	<0.0197	<0.0394	<0.0197	<0.0394	<3.94	<25.0	<25.0	<25.0	<25.0
Exc. B Floor @ 3'	7/18/2017	3'	In-Situ	<0.164	1.63	<0.112	16.4	2.90	20.93	1,660	<250	317	1,977	44.7
Exc. B North Sidewall	7/18/2017	2'	In-Situ	<0.00832	0.0497	1.18	<0.00628	0.333	1.5627	89.7	3,700	571	4,360.7	306
Exc. B East Sidewall	7/18/2017	2'	In-Situ	<0.0392	0.0607	<0.0267	0.321	<0.0295	0.382	27.1	2,820	566	3,413.1	<25.0
Exc. B South Sidewall	7/18/2017	2'	Excavated	<0.0425	0.103	1.67	<0.0320	<0.0320	1.773	95.1	4,700	725	**5,520.1**	103
Exc. B West Sidewall	7/18/2017	2'	In-Situ	<0.0167	0.0222	0.251	<0.0126	<0.0126	0.2732	12.5	3,690	762	4,464.5	65.7
Exc. C Floor @ 4'	7/18/2017	4'	In-Situ	<0.0195	0.0293	0.459	<0.0391	0.135	0.6233	30.3	316	49.2	395.5	<25.0
Exc. C North Sidewall	7/18/2017	3'	In-Situ	<0.0196	0.0196	0.106	<0.0393	<0.0196	0.1256	7.06	4390	399	4,796.06	<25.0
Exc. C East Sidewall	7/18/2017	3'	In-Situ	<0.0195	0.0780	1.64	<0.0390	<0.0195	1.7180	181	284	48.7	513.7	<25.0
Exc. C South Sidewall	7/18/2017	3'	In-Situ	<0.0183	<0.0183	0.0495	<0.0367	<0.0183	0.0495	<3.67	49.2	25.3	74.5	<25.0
Exc. C West Sidewall	7/18/2017	3'	In-Situ	<0.0198	<0.0198	0.0516	<0.0397	<0.0198	0.0516	<3.97	966	236	1,202	<25.0
Exc. A TT @ 9'	8/23/2017	9'	In-Situ	0.00216	<0.00202	0.00210	0.00747	0.00585	0.01758	40.3	779	161	980.3	140
Exc. B TT @ 8'	8/23/2017	8'	In-Situ	<0.00952	<0.00952	<0.00952	<0.0190	<0.00952	<0.0190	<15.0	<15.0	<15.0	<15.0	207
Exc. B SSWb	8/23/2017	2'	In-Situ	<0.00201	0.00848	<0.00201	<0.00402	<0.00201	0.00848	36.4	9,230	2,920	**12,186.4**	58.7
Exc. C TT @ 9'	8/23/2017	9'	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00404	<15.0	<15.0	<15.0	<15.0	<15.0
N. BGT NSW	8/28/2017	13'	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<15.0	<15.0	<15.0	<15.0	21.7
N. BGT ESW	8/28/2017	13'	In-Situ	<0.00201	<0.00201	<0.00201	0.00404	0.00596	0.01000	<15.0	190	53.5	243.5	61.4
N. BGT SSW	8/28/2017	13'	In-Situ	<0.0502	0.584	1.02	4.48	3.58	9.664	492	1,130	310	1,932	104
N. BGT WSW	8/28/2017	13'	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00403	<15.0	<15.0	<15.0	<15.0	24.1
S. BGT NSW	8/28/2017	13'	In-Situ	<0.100	4.33	6.80	23.7	5.30	40.13	1,290	3,160	486	4,936	313
S. BGT ESW	8/28/2017	13'	In-Situ	15.6	38.6	20.4	50.8	9.64	**135.04**	2,300	15,400	2,500	**20,200**	95.6
S. BGT SSW	8/28/2017	13'	In-Situ	<0.0499	<0.0499	1.04	5.78	2.96	9.78	335	577	65.5	977.5	62.2
S. BGT WSW	8/28/2017	13'	In-Situ	<0.101	1.90	3.23	33.9	7.05	46.08	2,540	2,220	671	**5,431**	22.5
NMOCD Recommended Remediation Action Level				**10**	**-**	**-**	**-**	**-**	**50**	**-**	**-**	**-**	**5,000**	**600**

Certificate of Analysis Summary 557913

TRC Solutions, Inc, Midland, TX

Project Name: Jal #3 West Exc A

Project Id:
Contact: Joel Lowry
Project Location:

Date Received in Lab: Tue Jul-18-17 04:40 pm
Report Date: 27-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	557913-001		557913-002		557913-003		557913-004		557913-005	
	Field Id:	Floor 4'		North Sidewall		East Sidewall		South Sidewall		West Sidewall	
	Depth:	4 ft		3 ft		3 ft		3 ft		3 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-18-17 10:05		Jul-18-17 10:10		Jul-18-17 10:15		Jul-18-17 10:20		Jul-18-17 10:25	
BTEX by EPA 8021B	***Extracted:***	Jul-20-17 12:30		Jul-20-17 12:30		Jul-20-17 12:30		Jul-20-17 12:30		Jul-20-17 12:30	
	Analyzed:	Jul-21-17 06:31		Jul-20-17 21:36		Jul-21-17 00:44		Jul-21-17 06:58		Jul-20-17 19:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		11.5	0.0388	<0.0194	0.0194	<0.0180	0.0180	0.0916	0.0398	<0.0197	0.0197
Toluene		7.71	0.0388	0.0426	0.0194	0.0180	0.0180	0.311	0.0398	<0.0197	0.0197
Ethylbenzene		4.30	0.0388	0.0233	0.0194	0.242	0.0180	0.0916	0.0398	<0.0197	0.0197
m,p-Xylenes		12.1	0.0775	0.0523	0.0388	<0.0359	0.0359	0.562	0.0797	<0.0394	0.0394
o-Xylene		2.19	0.0388	<0.0194	0.0194	<0.0180	0.0180	0.0916	0.0398	<0.0197	0.0197
Total Xylenes		14.3	0.0388	0.0523	0.0194	<0.0180	0.0180	0.654	0.0398	<0.0197	0.0197
Total BTEX		37.8	0.0388	0.118	0.0194	0.260	0.0180	1.15	0.0398	<0.0197	0.0197
Chloride by EPA 300	***Extracted:***	Jul-24-17 12:00		Jul-24-17 12:00		Jul-24-17 12:00		Jul-24-17 12:00		Jul-21-17 13:00	
	Analyzed:	Jul-24-17 17:10		Jul-24-17 17:22		Jul-24-17 17:34		Jul-24-17 17:47		Jul-24-17 12:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		81.3	25.0	222	25.0	44.8	25.0	52.9	25.0	<25.0	25.0
DRO-ORO By SW8015B	***Extracted:***	Jul-26-17 16:15		Jul-26-17 16:15		Jul-26-17 16:15		Jul-26-17 16:15		Jul-26-17 16:15	
	Analyzed:	Jul-27-17 06:56		Jul-27-17 07:29		Jul-27-17 08:02		Jul-27-17 08:35		Jul-27-17 09:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Diesel Range Organics (DRO)		1190	250	516	250	591	250	4250	250	<25.0	25.0
Oil Range Hydrocarbons (ORO)		<250	250	<250	250	<250	250	584	250	<25.0	25.0
TPH GRO by EPA 8015 Mod.	***Extracted:***	Jul-21-17 14:00		Jul-20-17 12:30		Jul-20-17 12:30		Jul-21-17 14:00		Jul-20-17 12:30	
	Analyzed:	Jul-22-17 03:57		Jul-20-17 21:36		Jul-21-17 00:44		Jul-22-17 04:25		Jul-20-17 19:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
TPH-GRO		1420	386	<3.88	3.88	19.9	3.59	<7.55	7.55	<3.94	3.94

Kelsey Brooks
Project Manager

Analytical Report 557913

for

TRC Solutions, Inc

Project Manager: Joel Lowry

Jal #3 West Exc A

27-JUL-17

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

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)

27-JUL-17

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **557913**
Jal #3 West Exc A
Project Address:

Joel Lowry:

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) 557913. 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. 557913 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor 4'	S	07-18-17 10:05	- 4 ft	557913-001
North Sidewall	S	07-18-17 10:10	- 3 ft	557913-002
East Sidewall	S	07-18-17 10:15	- 3 ft	557913-003
South Sidewall	S	07-18-17 10:20	- 3 ft	557913-004
West Sidewall	S	07-18-17 10:25	- 3 ft	557913-005

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3022806 BTEX by EPA 8021B
Surrogate a,a,a-Trifluorotoluene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 557913-004,557913-001.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3022966 TPH GRO by EPA 8015 Mod.
Sample 557913-004 was diluted due to hydrocarbons beyond xylene.

Batch: LBA-3023296 DRO-ORO By SW8015B
Surrogate Tricosane, Surrogate n-Triacontane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 557913-001,557913-002,557913-003,557913-004.

Certificate of Analytical Results 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id:	**Floor 4'**	Matrix:	Soil	Date Received:	07.18.17 16.40
Lab Sample Id:	557913-001	Date Collected:	07.18.17 10.05	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.24.17 12.00	Basis:	Wet Weight
Seq Number:	3023036				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**81.3**	25.0	mg/kg	07.24.17 17.10		1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**1190**	250	mg/kg	07.27.17 06.56		10
Oil Range Hydrocarbons (ORO)	PHCG2835	<250	250	mg/kg	07.27.17 06.56	U	10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	266	%	65-144	07.27.17 06.56	**
n-Triacontane	638-68-6	300	%	46-152	07.27.17 06.56	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**11.5**	0.0388	mg/kg	07.21.17 06.31		2
Toluene	108-88-3	**7.71**	0.0388	mg/kg	07.21.17 06.31		2
Ethylbenzene	100-41-4	**4.30**	0.0388	mg/kg	07.21.17 06.31		2
m,p-Xylenes	179601-23-1	**12.1**	0.0775	mg/kg	07.21.17 06.31		2
o-Xylene	95-47-6	**2.19**	0.0388	mg/kg	07.21.17 06.31		2
Total Xylenes	1330-20-7	**14.3**	0.0388	mg/kg	07.21.17 06.31		2
Total BTEX		**37.8**	0.0388	mg/kg	07.21.17 06.31		2

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	68-120	07.21.17 06.31	
a,a,a-Trifluorotoluene	98-08-8	716	%	71-121	07.21.17 06.31	**

Certificate of Analytical Results 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id:	**Floor 4'**	Matrix:	Soil	Date Received:	07.18.17 16.40
Lab Sample Id:	557913-001	Date Collected:	07.18.17 10.05	Sample Depth:	4 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.21.17 14.00	Basis:	Wet Weight
Seq Number:	3022966				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**1420**	386		mg/kg	07.22.17 03.57		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	76-123	07.22.17 03.57	
a,a,a-Trifluorotoluene	98-08-8	84	%	69-120	07.22.17 03.57	

Certificate of Analytical Results 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id:	**North Sidewall**	Matrix:	Soil	Date Received:	07.18.17 16.40
Lab Sample Id:	557913-002	Date Collected:	07.18.17 10.10	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.24.17 12.00	Basis:	Wet Weight
Seq Number:	3023036				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**222**	25.0	mg/kg	07.24.17 17.22		1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**516**	250	mg/kg	07.27.17 07.29		10
Oil Range Hydrocarbons (ORO)	PHCG2835	<250	250	mg/kg	07.27.17 07.29	U	10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	202	%	65-144	07.27.17 07.29	**
n-Triacontane	638-68-6	271	%	46-152	07.27.17 07.29	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0194	0.0194	mg/kg	07.20.17 21.36	U	1
Toluene	108-88-3	**0.0426**	0.0194	mg/kg	07.20.17 21.36		1
Ethylbenzene	100-41-4	**0.0233**	0.0194	mg/kg	07.20.17 21.36		1
m,p-Xylenes	179601-23-1	**0.0523**	0.0388	mg/kg	07.20.17 21.36		1
o-Xylene	95-47-6	<0.0194	0.0194	mg/kg	07.20.17 21.36	U	1
Total Xylenes	1330-20-7	**0.0523**	0.0194	mg/kg	07.20.17 21.36		1
Total BTEX		**0.118**	0.0194	mg/kg	07.20.17 21.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	68-120	07.20.17 21.36	
a,a,a-Trifluorotoluene	98-08-8	114	%	71-121	07.20.17 21.36	

Certificate of Analytical Results 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id:	**North Sidewall**	Matrix:	Soil	Date Received:	07.18.17 16.40
Lab Sample Id:	557913-002	Date Collected:	07.18.17 10.10	Sample Depth:	3 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022814				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<3.88	3.88	mg/kg	07.20.17 21.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	76-123	07.20.17 21.36	
a,a,a-Trifluorotoluene	98-08-8	112	%	69-120	07.20.17 21.36	

Certificate of Analytical Results 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id:	**East Sidewall**	Matrix:	Soil	Date Received:	07.18.17 16.40
Lab Sample Id:	557913-003	Date Collected:	07.18.17 10.15	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.24.17 12.00	Basis:	Wet Weight
Seq Number:	3023036				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.8**	25.0	mg/kg	07.24.17 17.34		1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**591**	250	mg/kg	07.27.17 08.02		10
Oil Range Hydrocarbons (ORO)	PHCG2835	<250	250	mg/kg	07.27.17 08.02	U	10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	204	%	65-144	07.27.17 08.02	**
n-Triacontane	638-68-6	217	%	46-152	07.27.17 08.02	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0180	0.0180	mg/kg	07.21.17 00.44	U	1
Toluene	108-88-3	**0.0180**	0.0180	mg/kg	07.21.17 00.44		1
Ethylbenzene	100-41-4	**0.242**	0.0180	mg/kg	07.21.17 00.44		1
m,p-Xylenes	179601-23-1	<0.0359	0.0359	mg/kg	07.21.17 00.44	U	1
o-Xylene	95-47-6	<0.0180	0.0180	mg/kg	07.21.17 00.44	U	1
Total Xylenes	1330-20-7	<0.0180	0.0180	mg/kg	07.21.17 00.44	U	1
Total BTEX		**0.260**	0.0180	mg/kg	07.21.17 00.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	68-120	07.21.17 00.44	
a,a,a-Trifluorotoluene	98-08-8	106	%	71-121	07.21.17 00.44	

Certificate of Analytical Results 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id:	**East Sidewall**	Matrix:	Soil	Date Received:	07.18.17 16.40
Lab Sample Id:	557913-003	Date Collected:	07.18.17 10.15	Sample Depth:	3 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022814				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**19.9**	3.59		mg/kg	07.21.17 00.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	76-123	07.21.17 00.44	
a,a,a-Trifluorotoluene	98-08-8	102	%	69-120	07.21.17 00.44	

Certificate of Analytical Results 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id:	**South Sidewall**	Matrix:	Soil	Date Received:	07.18.17 16.40
Lab Sample Id:	557913-004	Date Collected:	07.18.17 10.20	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.24.17 12.00	Basis:	Wet Weight
Seq Number:	3023036				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**52.9**	25.0	mg/kg	07.24.17 17.47		1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**4250**	250	mg/kg	07.27.17 08.35		10
Oil Range Hydrocarbons (ORO)	PHCG2835	**584**	250	mg/kg	07.27.17 08.35		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	646	%	65-144	07.27.17 08.35	**
n-Triacontane	638-68-6	1100	%	46-152	07.27.17 08.35	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0916**	0.0398	mg/kg	07.21.17 06.58		2
Toluene	108-88-3	**0.311**	0.0398	mg/kg	07.21.17 06.58		2
Ethylbenzene	100-41-4	**0.0916**	0.0398	mg/kg	07.21.17 06.58		2
m,p-Xylenes	179601-23-1	**0.562**	0.0797	mg/kg	07.21.17 06.58		2
o-Xylene	95-47-6	**0.0916**	0.0398	mg/kg	07.21.17 06.58		2
Total Xylenes	1330-20-7	**0.654**	0.0398	mg/kg	07.21.17 06.58		2
Total BTEX		**1.15**	0.0398	mg/kg	07.21.17 06.58		2

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	68-120	07.21.17 06.58	
a,a,a-Trifluorotoluene	98-08-8	131	%	71-121	07.21.17 06.58	**

Certificate of Analytical Results 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id:	**South Sidewall**	Matrix:	Soil	Date Received:	07.18.17 16.40
Lab Sample Id:	557913-004	Date Collected:	07.18.17 10.20	Sample Depth:	3 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.21.17 14.00	Basis:	Wet Weight
Seq Number:	3022966				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<7.55	7.55		mg/kg	07.22.17 04.25	U	2

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	80	%	76-123	07.22.17 04.25	
a,a,a-Trifluorotoluene	98-08-8	89	%	69-120	07.22.17 04.25	

Certificate of Analytical Results 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id:	**West Sidewall**	Matrix:	Soil	Date Received:	07.18.17 16.40
Lab Sample Id:	557913-005	Date Collected:	07.18.17 10.25	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	07.24.17 12.33	U	1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	07.27.17 09.08	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<25.0	25.0	mg/kg	07.27.17 09.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	106	%	65-144	07.27.17 09.08	
n-Triacontane	638-68-6	117	%	46-152	07.27.17 09.08	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0197	0.0197	mg/kg	07.20.17 19.49	U	1
Toluene	108-88-3	<0.0197	0.0197	mg/kg	07.20.17 19.49	U	1
Ethylbenzene	100-41-4	<0.0197	0.0197	mg/kg	07.20.17 19.49	U	1
m,p-Xylenes	179601-23-1	<0.0394	0.0394	mg/kg	07.20.17 19.49	U	1
o-Xylene	95-47-6	<0.0197	0.0197	mg/kg	07.20.17 19.49	U	1
Total Xylenes	1330-20-7	<0.0197	0.0197	mg/kg	07.20.17 19.49	U	1
Total BTEX		<0.0197	0.0197	mg/kg	07.20.17 19.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	68-120	07.20.17 19.49	
a,a,a-Trifluorotoluene	98-08-8	112	%	71-121	07.20.17 19.49	

Certificate of Analytical Results 557913

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc A

Sample Id:	**West Sidewall**	Matrix:	Soil	Date Received:	07.18.17 16.40
Lab Sample Id:	557913-005	Date Collected:	07.18.17 10.25	Sample Depth:	3 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022814				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<3.94	3.94		mg/kg	07.20.17 19.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	76-123	07.20.17 19.49	
a,a,a-Trifluorotoluene	98-08-8	111	%	69-120	07.20.17 19.49	

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

QC Summary 557913

TRC Solutions, Inc

Jal #3 West Exc A

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023006 Matrix: Solid Date Prep: 07.21.17
MB Sample Id: 728108-1-BLK LCS Sample Id: 728108-1-BKS LCSD Sample Id: 728108-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	249	100	258	103	90-110	4	20	mg/kg	07.24.17 08:57	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023036 Matrix: Solid Date Prep: 07.24.17
MB Sample Id: 728123-1-BLK LCS Sample Id: 728123-1-BKS LCSD Sample Id: 728123-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	245	98	270	108	90-110	10	20	mg/kg	07.24.17 15:07	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023006 Matrix: Soil Date Prep: 07.21.17
Parent Sample Id: 557905-001 MS Sample Id: 557905-001 S MSD Sample Id: 557905-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	273	109	267	107	80-120	2	20	mg/kg	07.24.17 09:34	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023006 Matrix: Soil Date Prep: 07.21.17
Parent Sample Id: 557913-005 MS Sample Id: 557913-005 S MSD Sample Id: 557913-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	261	104	265	106	80-120	2	20	mg/kg	07.24.17 12:45	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023036 Matrix: Soil Date Prep: 07.24.17
Parent Sample Id: 558233-001 MS Sample Id: 558233-001 S MSD Sample Id: 558233-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	331	132	346	138	80-120	4	20	mg/kg	07.24.17 16:44	X

QC Summary 557913

TRC Solutions, Inc

Jal #3 West Exc A

Analytical Method: **DRO-ORO By SW8015B** Prep Method: SW8015P
Seq Number: 3023296 Matrix: Solid Date Prep: 07.26.17
MB Sample Id: 728282-1-BLK LCS Sample Id: 728282-1-BKS LCSD Sample Id: 728282-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Diesel Range Organics (DRO)	<25.0	100	103	103	88.6	89	63-139	15	20	mg/kg	07.26.17 21:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Tricosane	112		115		102		65-144	%	07.26.17 21:11
n-Triacontane	127		124		114		46-152	%	07.26.17 21:11

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3022806 Matrix: Solid Date Prep: 07.20.17
MB Sample Id: 727950-1-BLK LCS Sample Id: 727950-1-BKS LCSD Sample Id: 727950-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	1.88	94	1.87	94	55-120	1	20	mg/kg	07.20.17 16:37	
Toluene	<0.0200	2.00	1.91	96	1.88	94	77-120	2	20	mg/kg	07.20.17 16:37	
Ethylbenzene	<0.0200	2.00	1.88	94	1.87	94	77-120	1	20	mg/kg	07.20.17 16:37	
m,p-Xylenes	<0.0400	4.00	3.77	94	3.77	94	78-120	0	20	mg/kg	07.20.17 16:37	
o-Xylene	<0.0200	2.00	1.87	94	1.85	93	78-120	1	20	mg/kg	07.20.17 16:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		96		96		68-120	%	07.20.17 16:37
a,a,a-Trifluorotoluene	97		93		95		71-121	%	07.20.17 16:37

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3022806 Matrix: Soil Date Prep: 07.20.17
Parent Sample Id: 557913-005 MS Sample Id: 557913-005 S MSD Sample Id: 557913-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0194	1.94	1.50	77	1.44	76	54-120	4	25	mg/kg	07.20.17 20:16	
Toluene	<0.0194	1.94	1.65	85	1.57	83	57-120	5	25	mg/kg	07.20.17 20:16	
Ethylbenzene	<0.0194	1.94	1.72	89	1.64	87	58-131	5	25	mg/kg	07.20.17 20:16	
m,p-Xylenes	<0.0388	3.88	3.45	89	3.29	87	62-124	5	25	mg/kg	07.20.17 20:16	
o-Xylene	<0.0194	1.94	1.70	88	1.63	86	62-124	4	25	mg/kg	07.20.17 20:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	100		102		68-120	%	07.20.17 20:16
a,a,a-Trifluorotoluene	102		103		71-121	%	07.20.17 20:16

QC Summary 557913

TRC Solutions, Inc

Jal #3 West Exc A

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022814 Matrix: Solid Date Prep: 07.20.17
MB Sample Id: 727951-1-BLK LCS Sample Id: 727951-1-BKS LCSD Sample Id: 727951-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<4.00	20.0	17.6	88	21.3	107	35-129	19	20	mg/kg	07.20.17 17:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	88		93		103		76-123	%	07.20.17 17:32
a,a,a-Trifluorotoluene	105		102		112		69-120	%	07.20.17 17:32

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022966 Matrix: Solid Date Prep: 07.21.17
MB Sample Id: 728047-1-BLK LCS Sample Id: 728047-1-BKS LCSD Sample Id: 728047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<4.00	20.0	17.8	89	19.0	95	35-129	7	20	mg/kg	07.22.17 00:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	84		87		92		76-123	%	07.22.17 00:24
a,a,a-Trifluorotoluene	100		90		92		69-120	%	07.22.17 00:24

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022814 Matrix: Soil Date Prep: 07.20.17
Parent Sample Id: 557913-002 MS Sample Id: 557913-002 S MSD Sample Id: 557913-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<3.76	18.8	19.0	101	18.5	97	35-129	3	20	mg/kg	07.20.17 22:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		106		76-123	%	07.20.17 22:03
a,a,a-Trifluorotoluene	99		103		69-120	%	07.20.17 22:03

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022966 Matrix: Soil Date Prep: 07.21.17
Parent Sample Id: 557913-004 MS Sample Id: 557913-004 S MSD Sample Id: 557913-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<6.99	35.0	16.4	47	14.0	40	35-129	16	20	mg/kg	07.22.17 04:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	89		89		76-123	%	07.22.17 04:52
a,a,a-Trifluorotoluene	84		86		69-120	%	07.22.17 04:52

CHAIN OF CUSTODY

XENCO LABORATORIES

Setting the Standard since 1990

Page ___ Of ___

Revision 2016.1

Stafford, TX (281) 240-4200
Dallas, TX (214) 902-0300
El Paso, TX (915) 585-3443
Lubbock, TX (806) 794-1296
Midland, TX (432) 704-5440
San Antonio, TX (210) 509-3334
Phoenix, AZ (480) 355-0900
Service Center - Baton Rouge, LA (832) 712-8143
Service Center- Amarillo, TX (806)678-4514
Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote #: | Xenco Job #: 557913

Client / Reporting Information

Company Name / Branch: TRC Solutions
Company Address: 2057 Commerce Drive Midland TX 79703
Email: jlowry@TRCsolutions.com Phone No: 432-446-4450
Project Contact: Joel Lowry
Samplers's Name:

Project Information

Project Name/Number:
Project Location: Jal #3 West Exc. A
Invoice To: ETC c/o Rose Slade
PO Number:

Analytical Information

BTEX 8021 | TPH 8015 M Ext | Cl-

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	Floor @ 4'	4'	7/18/17	10:05	S	1									001
2	North Sidewall	3		10:10											002
3	East Sidewall	3		10:15											003
4	South Sidewall	3		10:20											004
5	West Sidewall	3		10:25											005
6															
7															
8															
9															
10															

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler / Relinquished by	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joel Lowry		1	2		2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	~~Received By:~~ Brenda Ward	~~Custody Seal #~~ 7/18/17 5:40	Preserved where applicable	On Ice ✓ Cooler Temp. 5.0/4.9 Thermo. Corr. Factor IR-3 -0.1

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 07/18/2017 04:40:00 PM

Work Order #: 557913

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

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.9
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**No**
#21 VOC samples have zero headspace?	**N/A**

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

Analyst:

PH Device/Lot#:

Checklist completed by: Brenda Ward Date: 07/19/2017
Brenda Ward

Checklist reviewed by: Kelsey Brooks Date: 07/19/2017
Kelsey Brooks

Certificate of Analysis Summary 557911

TRC Solutions, Inc, Midland, TX

Project Name: Jal #3 West Exc B

Project Id:
Contact: Joel Lowry
Project Location:

Date Received in Lab: Tue Jul-18-17 05:45 pm
Report Date: 27-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	557911-001		557911-002		557911-003		557911-004		557911-005	
	Field Id:	Floor @ 3'		North Sidewall		East Sidewall		South Sidewall		West Sidewall	
	Depth:	3 ft		2 ft		2 ft		2 ft		2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-17-17 12:00		Jul-17-17 12:05		Jul-17-17 12:10		Jul-17-17 12:15		Jul-17-17 12:20	
BTEX by EPA 8021B	***Extracted:***	Jul-20-17 12:30		Jul-20-17 12:30		Jul-20-17 12:30		Jul-20-17 12:30		Jul-20-17 12:30	
	Analyzed:	Jul-21-17 01:11		Jul-21-17 06:04		Jul-21-17 01:38		Jul-21-17 02:04		Jul-21-17 02:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.164	0.362	<0.00832	0.0184	<0.0392	0.0867	<0.0425	0.0940	<0.0167	0.0370
Toluene		1.63	0.362	0.0497	0.0184	0.0607 J	0.0867	0.103	0.0940	0.0222 J	0.0370
Ethylbenzene		<0.112	0.362	1.18	0.0184	<0.0267	0.0867	1.67	0.0940	0.251	0.0370
m,p-Xylenes		16.4	0.725	<0.00628	0.0368	0.321	0.173	<0.0320	0.188	<0.0126	0.0739
o-Xylene		2.90	0.362	0.333	0.0184	<0.0295	0.0867	<0.0320	0.0940	<0.0126	0.0370
Xylenes, Total		19.3	0.362	0.333	0.0184	0.321	0.0867	<0.0940	0.0940	<0.0370	0.0370
Total BTEX		20.9	0.362	1.56	0.0184	0.382	0.0867	1.77	0.0940	0.273	0.0370
Chloride by EPA 300	***Extracted:***	Jul-21-17 13:00		Jul-21-17 13:00		Jul-21-17 13:00		Jul-21-17 13:00		Jul-21-17 13:00	
	Analyzed:	Jul-24-17 13:10		Jul-24-17 13:22		Jul-24-17 13:35		Jul-24-17 13:47		Jul-24-17 14:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		44.7	25.0	306	25.0	<25.0	25.0	103	25.0	65.7	25.0
DRO-ORO By SW8015B	***Extracted:***	Jul-26-17 16:15		Jul-26-17 16:15		Jul-26-17 16:15		Jul-26-17 16:15		Jul-26-17 16:15	
	Analyzed:	Jul-27-17 04:10		Jul-27-17 04:43		Jul-27-17 05:17		Jul-27-17 05:50		Jul-27-17 06:23	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Diesel Range Organics (DRO)		<250	250	3700	250	2820	250	4700	250	3690	250
Oil Range Hydrocarbons (ORO)		317	250	571	250	566	250	725	250	762	250
TPH GRO by EPA 8015 Mod.	***Extracted:***	Jul-21-17 14:00		Jul-21-17 14:00		Jul-20-17 12:30		Jul-20-17 12:30		Jul-20-17 12:30	
	Analyzed:	Jul-22-17 03:04		Jul-22-17 03:30		Jul-21-17 01:38		Jul-21-17 02:04		Jul-21-17 02:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
TPH-GRO		1660	200	89.7	19.6	27.1	17.3	95.1	18.8	12.5	7.39

Kelsey Brooks
Project Manager

Analytical Report 557911

for

TRC Solutions, Inc

Project Manager: Joel Lowry

Jal #3 West Exc B

27-JUL-17

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

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)

27-JUL-17

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **557911**
Jal #3 West Exc B
Project Address:

Joel Lowry:

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) 557911. 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. 557911 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 557911

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor @ 3'	S	07-17-17 12:00	- 3 ft	557911-001
North Sidewall	S	07-17-17 12:05	- 2 ft	557911-002
East Sidewall	S	07-17-17 12:10	- 2 ft	557911-003
South Sidewall	S	07-17-17 12:15	- 2 ft	557911-004
West Sidewall	S	07-17-17 12:20	- 2 ft	557911-005

Client Name: TRC Solutions, Inc
Project Name: Jal #3 West Exc B

Project ID:
Work Order Number(s): *557911*

Report Date: *27-JUL-17*
Date Received: *07/18/2017*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:
Batch: LBA-3022806 BTEX by EPA 8021B
Samples 557911-001, 557911-003, 557911-004, and 557911-005 were diluted due to excessive hydrocarbons beyond xylene.

Batch: LBA-3023296 DRO-ORO By SW8015B
Surrogate Tricosane recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 557911-001.
Surrogate n-Triacontane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 557911-001,557911-002,557911-003,557911-004,557911-005.
Surrogate Tricosane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 557911-002,557911-003,557911-004,557911-005.

Certificate of Analytical Results 557911

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id:	**Floor @ 3'**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557911-001	Date Collected:	07.17.17 12.00	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.7**	25.0	mg/kg	07.24.17 13.10		1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	<250	250	mg/kg	07.27.17 04.10	U	10
Oil Range Hydrocarbons (ORO)	PHCG2835	**317**	250	mg/kg	07.27.17 04.10		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	17	%	65-144	07.27.17 04.10	***
n-Triacontane	638-68-6	287	%	46-152	07.27.17 04.10	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.164	0.362	0.164	mg/kg	07.21.17 01.11	U	20
Toluene	108-88-3	**1.63**	0.362	0.0848	mg/kg	07.21.17 01.11		20
Ethylbenzene	100-41-4	<0.112	0.362	0.112	mg/kg	07.21.17 01.11	U	20
m,p-Xylenes	179601-23-1	**16.4**	0.725	0.124	mg/kg	07.21.17 01.11		20
o-Xylene	95-47-6	**2.90**	0.362	0.124	mg/kg	07.21.17 01.11		20
Xylenes, Total	1330-20-7	**19.3**	0.362	0.124	mg/kg	07.21.17 01.11		20
Total BTEX		**20.9**	0.362	0.0848	mg/kg	07.21.17 01.11		20

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	68-120	07.21.17 01.11	
a,a,a-Trifluorotoluene	98-08-8	111	%	71-121	07.21.17 01.11	

Certificate of Analytical Results 557911

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id:	**Floor @ 3'**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557911-001	Date Collected:	07.17.17 12.00	Sample Depth:	3 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.21.17 14.00	Basis:	Wet Weight
Seq Number:	3022966				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**1660**	200		mg/kg	07.22.17 03.04		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	76-123	07.22.17 03.04	
a,a,a-Trifluorotoluene	98-08-8	91	%	69-120	07.22.17 03.04	

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TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id:	**North Sidewall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557911-002	Date Collected:	07.17.17 12.05	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**306**	25.0	mg/kg	07.24.17 13.22		1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**3700**	250	mg/kg	07.27.17 04.43		10
Oil Range Hydrocarbons (ORO)	PHCG2835	**571**	250	mg/kg	07.27.17 04.43		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	716	%	65-144	07.27.17 04.43	**
n-Triacontane	638-68-6	467	%	46-152	07.27.17 04.43	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00832	0.0184	0.00832	mg/kg	07.21.17 06.04	U	1
Toluene	108-88-3	**0.0497**	0.0184	0.00431	mg/kg	07.21.17 06.04		1
Ethylbenzene	100-41-4	**1.18**	0.0184	0.00567	mg/kg	07.21.17 06.04		1
m,p-Xylenes	179601-23-1	<0.00628	0.0368	0.00628	mg/kg	07.21.17 06.04	U	1
o-Xylene	95-47-6	**0.333**	0.0184	0.00628	mg/kg	07.21.17 06.04		1
Xylenes, Total	1330-20-7	**0.333**	0.0184	0.00628	mg/kg	07.21.17 06.04		1
Total BTEX		**1.56**	0.0184	0.00431	mg/kg	07.21.17 06.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	68-120	07.21.17 06.04	
a,a,a-Trifluorotoluene	98-08-8	97	%	71-121	07.21.17 06.04	

Certificate of Analytical Results 557911

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id:	**North Sidewall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557911-002	Date Collected:	07.17.17 12.05	Sample Depth:	2 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.21.17 14.00	Basis:	Wet Weight
Seq Number:	3022966				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**89.7**	19.6		mg/kg	07.22.17 03.30		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	76-123	07.22.17 03.30	
a,a,a-Trifluorotoluene	98-08-8	92	%	69-120	07.22.17 03.30	

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TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id:	**East Sidewall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557911-003	Date Collected:	07.17.17 12.10	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	07.24.17 13.35	U	1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**2820**	250	mg/kg	07.27.17 05.17		10
Oil Range Hydrocarbons (ORO)	PHCG2835	**566**	250	mg/kg	07.27.17 05.17		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	748	%	65-144	07.27.17 05.17	**
n-Triacontane	638-68-6	610	%	46-152	07.27.17 05.17	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0392	0.0867	0.0392	mg/kg	07.21.17 01.38	U	5
Toluene	108-88-3	**0.0607**	0.0867	0.0203	mg/kg	07.21.17 01.38	J	5
Ethylbenzene	100-41-4	<0.0267	0.0867	0.0267	mg/kg	07.21.17 01.38	U	5
m,p-Xylenes	179601-23-1	**0.321**	0.173	0.0295	mg/kg	07.21.17 01.38		5
o-Xylene	95-47-6	<0.0295	0.0867	0.0295	mg/kg	07.21.17 01.38	U	5
Xylenes, Total	1330-20-7	**0.321**	0.0867	0.0295	mg/kg	07.21.17 01.38		5
Total BTEX		**0.382**	0.0867	0.0203	mg/kg	07.21.17 01.38		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	68-120	07.21.17 01.38	
a,a,a-Trifluorotoluene	98-08-8	93	%	71-121	07.21.17 01.38	

Certificate of Analytical Results 557911

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id:	**East Sidewall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557911-003	Date Collected:	07.17.17 12.10	Sample Depth:	2 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022814				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**27.1**	17.3		mg/kg	07.21.17 01.38		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	76-123	07.21.17 01.38	
a,a,a-Trifluorotoluene	98-08-8	94	%	69-120	07.21.17 01.38	

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TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id:	**South Sidewall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557911-004	Date Collected:	07.17.17 12.15	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**103**	25.0	mg/kg	07.24.17 13.47		1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**4700**	250	mg/kg	07.27.17 05.50		10
Oil Range Hydrocarbons (ORO)	PHCG2835	**725**	250	mg/kg	07.27.17 05.50		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	979	%	65-144	07.27.17 05.50	**
n-Triacontane	638-68-6	821	%	46-152	07.27.17 05.50	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0425	0.0940	0.0425	mg/kg	07.21.17 02.04	U	5
Toluene	108-88-3	**0.103**	0.0940	0.0220	mg/kg	07.21.17 02.04		5
Ethylbenzene	100-41-4	**1.67**	0.0940	0.0289	mg/kg	07.21.17 02.04		5
m,p-Xylenes	179601-23-1	<0.0320	0.188	0.0320	mg/kg	07.21.17 02.04	U	5
o-Xylene	95-47-6	<0.0320	0.0940	0.0320	mg/kg	07.21.17 02.04	U	5
Xylenes, Total	1330-20-7	<0.0940	0.0940	0.0320	mg/kg	07.21.17 02.04	U	5
Total BTEX		**1.77**	0.0940	0.0220	mg/kg	07.21.17 02.04		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	68-120	07.21.17 02.04	
a,a,a-Trifluorotoluene	98-08-8	101	%	71-121	07.21.17 02.04	

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TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id:	**South Sidewall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557911-004	Date Collected:	07.17.17 12.15	Sample Depth:	2 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022814				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**95.1**	18.8		mg/kg	07.21.17 02.04		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	76-123	07.21.17 02.04	
a,a,a-Trifluorotoluene	98-08-8	95	%	69-120	07.21.17 02.04	

Certificate of Analytical Results 557911

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id:	**West Sidewall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557911-005	Date Collected:	07.17.17 12.20	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**65.7**	25.0	mg/kg	07.24.17 14.00		1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**3690**	250	mg/kg	07.27.17 06.23		10
Oil Range Hydrocarbons (ORO)	PHCG2835	**762**	250	mg/kg	07.27.17 06.23		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	850	%	65-144	07.27.17 06.23	**
n-Triacontane	638-68-6	1200	%	46-152	07.27.17 06.23	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0167	0.0370	0.0167	mg/kg	07.21.17 02.31	U	2
Toluene	108-88-3	**0.0222**	0.0370	0.00865	mg/kg	07.21.17 02.31	J	2
Ethylbenzene	100-41-4	**0.251**	0.0370	0.0114	mg/kg	07.21.17 02.31		2
m,p-Xylenes	179601-23-1	<0.0126	0.0739	0.0126	mg/kg	07.21.17 02.31	U	2
o-Xylene	95-47-6	<0.0126	0.0370	0.0126	mg/kg	07.21.17 02.31	U	2
Xylenes, Total	1330-20-7	<0.0370	0.0370	0.0126	mg/kg	07.21.17 02.31	U	2
Total BTEX		**0.273**	0.0370	0.00865	mg/kg	07.21.17 02.31		2

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	68-120	07.21.17 02.31	
a,a,a-Trifluorotoluene	98-08-8	99	%	71-121	07.21.17 02.31	

Certificate of Analytical Results 557911

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc B

Sample Id:	**West Sidewall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557911-005	Date Collected:	07.17.17 12.20	Sample Depth:	2 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022814				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**12.5**	7.39		mg/kg	07.21.17 02.31		2

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	76-123	07.21.17 02.31	
a,a,a-Trifluorotoluene	98-08-8	97	%	69-120	07.21.17 02.31	

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

QC Summary 557911

TRC Solutions, Inc

Jal #3 West Exc B

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023006 Matrix: Solid Date Prep: 07.21.17
MB Sample Id: 728108-1-BLK LCS Sample Id: 728108-1-BKS LCSD Sample Id: 728108-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	249	100	258	103	90-110	4	20	mg/kg	07.24.17 08:57	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023006 Matrix: Soil Date Prep: 07.21.17
Parent Sample Id: 557905-001 MS Sample Id: 557905-001 S MSD Sample Id: 557905-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	273	109	267	107	80-120	2	20	mg/kg	07.24.17 09:34	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023006 Matrix: Soil Date Prep: 07.21.17
Parent Sample Id: 557913-005 MS Sample Id: 557913-005 S MSD Sample Id: 557913-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	261	104	265	106	80-120	2	20	mg/kg	07.24.17 12:45	

Analytical Method: **DRO-ORO By SW8015B** Prep Method: SW8015P
Seq Number: 3023296 Matrix: Solid Date Prep: 07.26.17
MB Sample Id: 728282-1-BLK LCS Sample Id: 728282-1-BKS LCSD Sample Id: 728282-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Diesel Range Organics (DRO)	<25.0	100	103	103	88.6	89	63-139	15	20	mg/kg	07.26.17 21:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Tricosane	112		115		102		65-144	%	07.26.17 21:11
n-Triacontane	127		124		114		46-152	%	07.26.17 21:11

QC Summary 557911

TRC Solutions, Inc

Jal #3 West Exc B

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3022806 Matrix: Solid Date Prep: 07.20.17

MB Sample Id: 727950-1-BLK LCS Sample Id: 727950-1-BKS LCSD Sample Id: 727950-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00904	2.00	1.88	94	1.87	94	55-120	1	20	mg/kg	07.20.17 16:37	
Toluene	<0.00468	2.00	1.91	96	1.88	94	77-120	2	20	mg/kg	07.20.17 16:37	
Ethylbenzene	<0.00616	2.00	1.88	94	1.87	94	77-120	1	20	mg/kg	07.20.17 16:37	
m,p-Xylenes	<0.00682	4.00	3.77	94	3.77	94	78-120	0	20	mg/kg	07.20.17 16:37	
o-Xylene	<0.00682	2.00	1.87	94	1.85	93	78-120	1	20	mg/kg	07.20.17 16:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		96		96		68-120	%	07.20.17 16:37
a,a,a-Trifluorotoluene	97		93		95		71-121	%	07.20.17 16:37

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3022806 Matrix: Soil Date Prep: 07.20.17

Parent Sample Id: 557913-005 MS Sample Id: 557913-005 S MSD Sample Id: 557913-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00876	1.94	1.50	77	1.44	76	54-120	4	25	mg/kg	07.20.17 20:16	
Toluene	0.00986	1.94	1.65	85	1.57	83	57-120	5	25	mg/kg	07.20.17 20:16	
Ethylbenzene	<0.00597	1.94	1.72	89	1.64	87	58-131	5	25	mg/kg	07.20.17 20:16	
m,p-Xylenes	0.00789	3.88	3.45	89	3.29	87	62-124	5	25	mg/kg	07.20.17 20:16	
o-Xylene	<0.00661	1.94	1.70	88	1.63	86	62-124	4	25	mg/kg	07.20.17 20:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	100		102		68-120	%	07.20.17 20:16
a,a,a-Trifluorotoluene	102		103		71-121	%	07.20.17 20:16

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B

Seq Number: 3022814 Matrix: Solid Date Prep: 07.20.17

MB Sample Id: 727951-1-BLK LCS Sample Id: 727951-1-BKS LCSD Sample Id: 727951-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<4.00	20.0	17.6	88	21.3	107	35-129	19	20	mg/kg	07.20.17 17:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	88		93		103		76-123	%	07.20.17 17:32
a,a,a-Trifluorotoluene	105		102		112		69-120	%	07.20.17 17:32

QC Summary 557911

TRC Solutions, Inc

Jal #3 West Exc B

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022966 Matrix: Solid Date Prep: 07.21.17
MB Sample Id: 728047-1-BLK LCS Sample Id: 728047-1-BKS LCSD Sample Id: 728047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<4.00	20.0	17.8	89	19.0	95	35-129	7	20	mg/kg	07.22.17 00:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	84		87		92		76-123	%	07.22.17 00:24
a,a,a-Trifluorotoluene	100		90		92		69-120	%	07.22.17 00:24

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022814 Matrix: Soil Date Prep: 07.20.17
Parent Sample Id: 557913-002 MS Sample Id: 557913-002 S MSD Sample Id: 557913-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<3.76	18.8	19.0	101	18.5	97	35-129	3	20	mg/kg	07.20.17 22:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		106		76-123	%	07.20.17 22:03
a,a,a-Trifluorotoluene	99		103		69-120	%	07.20.17 22:03

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022966 Matrix: Soil Date Prep: 07.21.17
Parent Sample Id: 557913-004 MS Sample Id: 557913-004 S MSD Sample Id: 557913-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<6.99	35.0	16.4	47	14.0	40	35-129	16	20	mg/kg	07.22.17 04:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	89		89		76-123	%	07.22.17 04:52
a,a,a-Trifluorotoluene	84		86		69-120	%	07.22.17 04:52

CHAIN OF CUSTODY

XENCO LABORATORIES

Setting the Standard since 1990

Page ___ Of ___

Revision 2016.1

Stafford, TX (281) 240-4200 | Dallas, TX (214) 902-0300 | El Paso, TX (915) 585-3443 | Lubbock, TX (806) 794-1296 | Midland, TX (432) 704-5440 | San Antonio, TX (210) 509-3334 | Phoenix, AZ (480) 355-0900 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Amarillo, TX (806)678-4514 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote # | Xenco Job # 557911

Client / Reporting Information

Company Name / Branch: PE Solutions
Company Address: 2057 Commerce Drive Midland, TX 79703
Email: jlaing@PESolutions.com
Phone No: 432-466-4450
Project Contact: Joel Laing
Samplers's Name:

Project Information

Project Name/Number:
Project Location: Jal #3 West Ext. B
Invoice To: ETC C/O Rose Slade
PO Number:

Analytical Information

BTEX 8021B | TPH 8015 M Ext | Cl-

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	Floor @ 3'	2	7/17/17	17:00	S	1									001
2	North Sidewall	2		17:05											002
3	East Sidewall	2		17:10											003
4	South Sidewall	2		17:15											004
5	West Sidewall	2		17:20											005
6															
7															
8															
9															
10															

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☑ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ Level II Report with TRRP checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joel Laing		1	2		2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5 Brenda Waer	Custody Seal #	7/18/17 5:45	Preserved where applicable: X

On Ice: X | Cooler Temp. 4.6/4.5 | Thermo. Corr. Factor IR-3

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 07/18/2017 05:45:00 PM

Work Order #: 557911

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

Temperature Measuring device used : IR-3

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**Yes**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**No**
#21 VOC samples have zero headspace?	**N/A**

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

Analyst:

PH Device/Lot#:

Checklist completed by: Brenda Ward Date: 07/19/2017
Brenda Ward

Checklist reviewed by: Kelsey Brooks Date: 07/19/2017
Kelsey Brooks

Certificate of Analysis Summary 557905

TRC Solutions, Inc, Midland, TX

Project Name: Jal #3 West Exc.

Project Id:
Contact: Joel Lowry
Project Location: Jal #3 West Exc.

Date Received in Lab: Tue Jul-18-17 05:45 pm
Report Date: 27-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	557905-001		557905-002		557905-003		557905-004		557905-005	
	Field Id:	Floor @ 4'		North Side Wall		East Side Wall		South Side Wall		West Side Wall	
	Depth:	4 ft		3 ft		3 ft		3 ft		3 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-18-17 13:10		Jul-18-17 13:15		Jul-18-17 13:20		Jul-18-17 13:25		Jul-18-17 13:30	
BTEX by EPA 8021B	***Extracted:***	Jul-20-17 12:30		Jul-20-17 12:30		Jul-20-17 12:30		Jul-20-17 12:30		Jul-20-17 12:30	
	Analyzed:	Jul-20-17 23:24		Jul-21-17 05:37		Jul-21-17 05:11		Jul-20-17 23:51		Jul-21-17 00:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0195	0.0195	<0.0196	0.0196	<0.0195	0.0195	<0.0183	0.0183	<0.0198	0.0198
Toluene		0.0293	0.0195	0.0196	0.0196	0.0780	0.0195	<0.0183	0.0183	<0.0198	0.0198
Ethylbenzene		0.459	0.0195	0.106	0.0196	1.64	0.0195	0.0495	0.0183	0.0516	0.0198
m,p-Xylenes		<0.0391	0.0391	<0.0393	0.0393	<0.0390	0.0390	<0.0367	0.0367	<0.0397	0.0397
o-Xylene		0.135	0.0195	<0.0196	0.0196	<0.0195	0.0195	<0.0183	0.0183	<0.0198	0.0198
Total Xylenes		0.135	0.0195	<0.0196	0.0196	<0.0195	0.0195	<0.0183	0.0183	<0.0198	0.0198
Total BTEX		0.623	0.0195	0.126	0.0196	1.72	0.0195	0.0495	0.0183	0.0516	0.0198
Chloride by EPA 300	***Extracted:***	Jul-21-17 13:00		Jul-21-17 13:00		Jul-21-17 13:00		Jul-21-17 13:00		Jul-21-17 13:00	
	Analyzed:	Jul-24-17 09:22		Jul-24-17 09:59		Jul-24-17 10:12		Jul-24-17 10:24		Jul-24-17 10:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<25.0	25.0	<25.0	25.0	<25.0	25.0	<25.0	25.0	<25.0	25.0
DRO-ORO By SW8015B	***Extracted:***	Jul-26-17 16:15		Jul-26-17 16:15		Jul-26-17 16:15		Jul-26-17 16:15		Jul-26-17 16:15	
	Analyzed:	Jul-27-17 01:20		Jul-27-17 10:14		Jul-27-17 02:29		Jul-27-17 03:03		Jul-27-17 03:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Diesel Range Organics (DRO)		316	25.0	4390	250	284	25.0	49.2	25.0	966	25.0
Oil Range Hydrocarbons (ORO)		49.2	25.0	399	250	48.7	25.0	25.3	25.0	236	25.0
TPH GRO by EPA 8015 Mod.	***Extracted:***	Jul-20-17 12:30		Jul-20-17 12:30		Jul-21-17 14:00		Jul-20-17 12:30		Jul-20-17 12:30	
	Analyzed:	Jul-20-17 23:24		Jul-21-17 05:37		Jul-22-17 02:37		Jul-20-17 23:51		Jul-21-17 00:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
TPH-GRO		30.3	3.91	7.06	3.93	181	19.4	<3.67	3.67	<3.97	3.97

Kelsey Brooks
Project Manager

Analytical Report 557905

for

TRC Solutions, Inc

Project Manager: Joel Lowry

Jal #3 West Exc.

27-JUL-17

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

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)

27-JUL-17

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **557905**
Jal #3 West Exc.
Project Address: Jal #3 West Exc.

Joel Lowry:

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) 557905. 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. 557905 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor @ 4'	S	07-18-17 13:10	- 4 ft	557905-001
North Side Wall	S	07-18-17 13:15	- 3 ft	557905-002
East Side Wall	S	07-18-17 13:20	- 3 ft	557905-003
South Side Wall	S	07-18-17 13:25	- 3 ft	557905-004
West Side Wall	S	07-18-17 13:30	- 3 ft	557905-005

Client Name: TRC Solutions, Inc
Project Name: Jal #3 West Exc.

Project ID:
Work Order Number(s): *557905*

Report Date: *27-JUL-17*
Date Received: *07/18/2017*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:
Batch: LBA-3022806 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 557905-003.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3023296 DRO-ORO By SW8015B
Surrogate Tricosane, Surrogate n-Triacontane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 557905-002,557905-005.
Matrix spikes were ran with batch but could not be reported due to different report method.

Certificate of Analytical Results 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id:	**Floor @ 4'**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557905-001	Date Collected:	07.18.17 13.10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	07.24.17 09.22	U	1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**316**	25.0	mg/kg	07.27.17 01.20		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**49.2**	25.0	mg/kg	07.27.17 01.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	123	%	65-144	07.27.17 01.20	
n-Triacontane	638-68-6	140	%	46-152	07.27.17 01.20	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0195	0.0195	mg/kg	07.20.17 23.24	U	1
Toluene	108-88-3	**0.0293**	0.0195	mg/kg	07.20.17 23.24		1
Ethylbenzene	100-41-4	**0.459**	0.0195	mg/kg	07.20.17 23.24		1
m,p-Xylenes	179601-23-1	<0.0391	0.0391	mg/kg	07.20.17 23.24	U	1
o-Xylene	95-47-6	**0.135**	0.0195	mg/kg	07.20.17 23.24		1
Total Xylenes	1330-20-7	**0.135**	0.0195	mg/kg	07.20.17 23.24		1
Total BTEX		**0.623**	0.0195	mg/kg	07.20.17 23.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	68-120	07.20.17 23.24	
a,a,a-Trifluorotoluene	98-08-8	106	%	71-121	07.20.17 23.24	

Certificate of Analytical Results 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id:	**Floor @ 4'**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557905-001	Date Collected:	07.18.17 13.10	Sample Depth:	4 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022814				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**30.3**	3.91		mg/kg	07.20.17 23.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	76-123	07.20.17 23.24	
a,a,a-Trifluorotoluene	98-08-8	102	%	69-120	07.20.17 23.24	

Certificate of Analytical Results 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id:	**North Side Wall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557905-002	Date Collected:	07.18.17 13.15	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	07.24.17 09.59	U	1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**4390**	250	mg/kg	07.27.17 10.14		10
Oil Range Hydrocarbons (ORO)	PHCG2835	**399**	250	mg/kg	07.27.17 10.14		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	887	%	65-144	07.27.17 10.14	**
n-Triacontane	638-68-6	665	%	46-152	07.27.17 10.14	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0196	0.0196	mg/kg	07.21.17 05.37	U	1
Toluene	108-88-3	**0.0196**	0.0196	mg/kg	07.21.17 05.37		1
Ethylbenzene	100-41-4	**0.106**	0.0196	mg/kg	07.21.17 05.37		1
m,p-Xylenes	179601-23-1	<0.0393	0.0393	mg/kg	07.21.17 05.37	U	1
o-Xylene	95-47-6	<0.0196	0.0196	mg/kg	07.21.17 05.37	U	1
Total Xylenes	1330-20-7	<0.0196	0.0196	mg/kg	07.21.17 05.37	U	1
Total BTEX		**0.126**	0.0196	mg/kg	07.21.17 05.37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	68-120	07.21.17 05.37	
a,a,a-Trifluorotoluene	98-08-8	95	%	71-121	07.21.17 05.37	

Certificate of Analytical Results 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id:	**North Side Wall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557905-002	Date Collected:	07.18.17 13.15	Sample Depth:	3 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022814				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**7.06**	3.93		mg/kg	07.21.17 05.37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	76-123	07.21.17 05.37	
a,a,a-Trifluorotoluene	98-08-8	98	%	69-120	07.21.17 05.37	

Certificate of Analytical Results 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id:	**East Side Wall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557905-003	Date Collected:	07.18.17 13.20	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	07.24.17 10.12	U	1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**284**	25.0	mg/kg	07.27.17 02.29		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**48.7**	25.0	mg/kg	07.27.17 02.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	144	%	65-144	07.27.17 02.29	
n-Triacontane	638-68-6	151	%	46-152	07.27.17 02.29	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0195	0.0195	mg/kg	07.21.17 05.11	U	1
Toluene	108-88-3	**0.0780**	0.0195	mg/kg	07.21.17 05.11		1
Ethylbenzene	100-41-4	**1.64**	0.0195	mg/kg	07.21.17 05.11		1
m,p-Xylenes	179601-23-1	<0.0390	0.0390	mg/kg	07.21.17 05.11	U	1
o-Xylene	95-47-6	<0.0195	0.0195	mg/kg	07.21.17 05.11	U	1
Total Xylenes	1330-20-7	<0.0195	0.0195	mg/kg	07.21.17 05.11	U	1
Total BTEX		**1.72**	0.0195	mg/kg	07.21.17 05.11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	189	%	68-120	07.21.17 05.11	**
a,a,a-Trifluorotoluene	98-08-8	110	%	71-121	07.21.17 05.11	

Certificate of Analytical Results 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id:	**East Side Wall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557905-003	Date Collected:	07.18.17 13.20	Sample Depth:	3 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.21.17 14.00	Basis:	Wet Weight
Seq Number:	3022966				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**181**	19.4		mg/kg	07.22.17 02.37		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	76-123	07.22.17 02.37	
a,a,a-Trifluorotoluene	98-08-8	97	%	69-120	07.22.17 02.37	

Certificate of Analytical Results 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id:	**South Side Wall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557905-004	Date Collected:	07.18.17 13.25	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	07.24.17 10.24	U	1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**49.2**	25.0	mg/kg	07.27.17 03.03		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**25.3**	25.0	mg/kg	07.27.17 03.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	113	%	65-144	07.27.17 03.03	
n-Triacontane	638-68-6	137	%	46-152	07.27.17 03.03	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0183	0.0183	mg/kg	07.20.17 23.51	U	1
Toluene	108-88-3	<0.0183	0.0183	mg/kg	07.20.17 23.51	U	1
Ethylbenzene	100-41-4	**0.0495**	0.0183	mg/kg	07.20.17 23.51		1
m,p-Xylenes	179601-23-1	<0.0367	0.0367	mg/kg	07.20.17 23.51	U	1
o-Xylene	95-47-6	<0.0183	0.0183	mg/kg	07.20.17 23.51	U	1
Total Xylenes	1330-20-7	<0.0183	0.0183	mg/kg	07.20.17 23.51	U	1
Total BTEX		**0.0495**	0.0183	mg/kg	07.20.17 23.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	68-120	07.20.17 23.51	
a,a,a-Trifluorotoluene	98-08-8	99	%	71-121	07.20.17 23.51	

Certificate of Analytical Results 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id:	**South Side Wall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557905-004	Date Collected:	07.18.17 13.25	Sample Depth:	3 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022814				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<3.67	3.67		mg/kg	07.20.17 23.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	76-123	07.20.17 23.51	
a,a,a-Trifluorotoluene	98-08-8	98	%	69-120	07.20.17 23.51	

Certificate of Analytical Results 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id:	**West Side Wall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557905-005	Date Collected:	07.18.17 13.30	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	07.21.17 13.00	Basis:	Wet Weight
Seq Number:	3023006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	07.24.17 10.36	U	1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	PGM			% Moisture:	
Analyst:	PGM	Date Prep:	07.26.17 16.15	Basis:	Wet Weight
Seq Number:	3023296				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**966**	25.0	mg/kg	07.27.17 03.36		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**236**	25.0	mg/kg	07.27.17 03.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	305	%	65-144	07.27.17 03.36	**
n-Triacontane	638-68-6	357	%	46-152	07.27.17 03.36	**

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0198	0.0198	mg/kg	07.21.17 00.18	U	1
Toluene	108-88-3	<0.0198	0.0198	mg/kg	07.21.17 00.18	U	1
Ethylbenzene	100-41-4	**0.0516**	0.0198	mg/kg	07.21.17 00.18		1
m,p-Xylenes	179601-23-1	<0.0397	0.0397	mg/kg	07.21.17 00.18	U	1
o-Xylene	95-47-6	<0.0198	0.0198	mg/kg	07.21.17 00.18	U	1
Total Xylenes	1330-20-7	<0.0198	0.0198	mg/kg	07.21.17 00.18	U	1
Total BTEX		**0.0516**	0.0198	mg/kg	07.21.17 00.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	68-120	07.21.17 00.18	
a,a,a-Trifluorotoluene	98-08-8	108	%	71-121	07.21.17 00.18	

Certificate of Analytical Results 557905

TRC Solutions, Inc, Midland, TX

Jal #3 West Exc.

Sample Id:	**West Side Wall**	Matrix:	Soil	Date Received:	07.18.17 17.45
Lab Sample Id:	557905-005	Date Collected:	07.18.17 13.30	Sample Depth:	3 ft
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.20.17 12.30	Basis:	Wet Weight
Seq Number:	3022814				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<3.97	3.97		mg/kg	07.21.17 00.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	76-123	07.21.17 00.18	
a,a,a-Trifluorotoluene	98-08-8	105	%	69-120	07.21.17 00.18	

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

QC Summary 557905

TRC Solutions, Inc

Jal #3 West Exc.

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023006 Matrix: Solid Date Prep: 07.21.17
MB Sample Id: 728108-1-BLK LCS Sample Id: 728108-1-BKS LCSD Sample Id: 728108-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	249	100	258	103	90-110	4	20	mg/kg	07.24.17 08:57	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023006 Matrix: Soil Date Prep: 07.21.17
Parent Sample Id: 557905-001 MS Sample Id: 557905-001 S MSD Sample Id: 557905-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	273	109	267	107	80-120	2	20	mg/kg	07.24.17 09:34	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3023006 Matrix: Soil Date Prep: 07.21.17
Parent Sample Id: 557913-005 MS Sample Id: 557913-005 S MSD Sample Id: 557913-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<25.0	250	261	104	265	106	80-120	2	20	mg/kg	07.24.17 12:45	

Analytical Method: **DRO-ORO By SW8015B** Prep Method: SW8015P
Seq Number: 3023296 Matrix: Solid Date Prep: 07.26.17
MB Sample Id: 728282-1-BLK LCS Sample Id: 728282-1-BKS LCSD Sample Id: 728282-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Diesel Range Organics (DRO)	<25.0	100	103	103	88.6	89	63-139	15	20	mg/kg	07.26.17 21:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Tricosane	112		115		102		65-144	%	07.26.17 21:11
n-Triacontane	127		124		114		46-152	%	07.26.17 21:11

QC Summary 557905

TRC Solutions, Inc

Jal #3 West Exc.

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3022806 Matrix: Solid Date Prep: 07.20.17
MB Sample Id: 727950-1-BLK LCS Sample Id: 727950-1-BKS LCSD Sample Id: 727950-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	1.88	94	1.87	94	55-120	1	20	mg/kg	07.20.17 16:37	
Toluene	<0.0200	2.00	1.91	96	1.88	94	77-120	2	20	mg/kg	07.20.17 16:37	
Ethylbenzene	<0.0200	2.00	1.88	94	1.87	94	77-120	1	20	mg/kg	07.20.17 16:37	
m,p-Xylenes	<0.0400	4.00	3.77	94	3.77	94	78-120	0	20	mg/kg	07.20.17 16:37	
o-Xylene	<0.0200	2.00	1.87	94	1.85	93	78-120	1	20	mg/kg	07.20.17 16:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		96		96		68-120	%	07.20.17 16:37
a,a,a-Trifluorotoluene	97		93		95		71-121	%	07.20.17 16:37

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3022806 Matrix: Soil Date Prep: 07.20.17
Parent Sample Id: 557913-005 MS Sample Id: 557913-005 S MSD Sample Id: 557913-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0194	1.94	1.50	77	1.44	76	54-120	4	25	mg/kg	07.20.17 20:16	
Toluene	<0.0194	1.94	1.65	85	1.57	83	57-120	5	25	mg/kg	07.20.17 20:16	
Ethylbenzene	<0.0194	1.94	1.72	89	1.64	87	58-131	5	25	mg/kg	07.20.17 20:16	
m,p-Xylenes	<0.0388	3.88	3.45	89	3.29	87	62-124	5	25	mg/kg	07.20.17 20:16	
o-Xylene	<0.0194	1.94	1.70	88	1.63	86	62-124	4	25	mg/kg	07.20.17 20:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	100		102		68-120	%	07.20.17 20:16
a,a,a-Trifluorotoluene	102		103		71-121	%	07.20.17 20:16

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022814 Matrix: Solid Date Prep: 07.20.17
MB Sample Id: 727951-1-BLK LCS Sample Id: 727951-1-BKS LCSD Sample Id: 727951-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<4.00	20.0	17.6	88	21.3	107	35-129	19	20	mg/kg	07.20.17 17:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	88		93		103		76-123	%	07.20.17 17:32
a,a,a-Trifluorotoluene	105		102		112		69-120	%	07.20.17 17:32

QC Summary 557905

TRC Solutions, Inc

Jal #3 West Exc.

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022966 Matrix: Solid Date Prep: 07.21.17
MB Sample Id: 728047-1-BLK LCS Sample Id: 728047-1-BKS LCSD Sample Id: 728047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<4.00	20.0	17.8	89	19.0	95	35-129	7	20	mg/kg	07.22.17 00:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	84		87		92		76-123	%	07.22.17 00:24
a,a,a-Trifluorotoluene	100		90		92		69-120	%	07.22.17 00:24

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022814 Matrix: Soil Date Prep: 07.20.17
Parent Sample Id: 557913-002 MS Sample Id: 557913-002 S MSD Sample Id: 557913-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<3.76	18.8	19.0	101	18.5	97	35-129	3	20	mg/kg	07.20.17 22:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		106		76-123	%	07.20.17 22:03
a,a,a-Trifluorotoluene	99		103		69-120	%	07.20.17 22:03

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3022966 Matrix: Soil Date Prep: 07.21.17
Parent Sample Id: 557913-004 MS Sample Id: 557913-004 S MSD Sample Id: 557913-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<6.99	35.0	16.4	47	14.0	40	35-129	16	20	mg/kg	07.22.17 04:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	89		89		76-123	%	07.22.17 04:52
a,a,a-Trifluorotoluene	84		86		69-120	%	07.22.17 04:52

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Revision 2016.1

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Dallas, TX (214) 902-0300

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Lubbock, TX (806) 794-1296

Midland, TX (432) 704-5440
San Antonio, TX (210) 509-3334

Phoenix, AZ (480) 355-0900
Service Center - Baton Rouge, LA (832) 712-8143

Service Center- Amarillo, TX (806)678-4514
Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote #

Xenco Job # 557905

Client / Reporting Information		Project Information	
Company Name / Branch: TRC Solutions		Project Name/Number:	
Company Address: 2057 Commerce Drive Midland, TX 79703		Project Location: Sal #3 West Exc. C	
Email: jlowry@TRCsolutions.com	Phone No: 432-466-4450	Invoice To: ETC C/O Rose Slade	
Project Contact: Joel Lowry		PO Number:	
Samplers's Name:			

Analytical Information: BTEX 8021B; TPH 8015 M Ext; Cl-

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX 8021B	TPH 8015 M Ext	Cl-	Field Comments
1	Floor @ 4'	4'	7/18/17	13:10	S	1												
2	North Sidewall	3	↓	13:15	↓	↓												
3	East Sidewall	3	↓	13:20	↓	↓												
4	South Sidewall	3	↓	13:25	↓	↓												
5	West Sidewall	3	↓	13:30	↓	↓												
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] Next Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 3 Day EMERGENCY
- [ ] 5 Day TAT
- [ ] 7 Day TAT
- [x] Contract TAT

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level III Std QC+ Forms
- [ ] Level 3 (CLP Forms)
- [ ] Level II Report with TRRP checklist
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] TRRP Level IV
- [ ] UST / RG -411

Notes:

TAT Starts Day received by Lab, if received by 5:00 pm

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
Relinquished by Sampler: 1 Joel Lowry		1	2		2
Relinquished by: 3		3	4		4
Relinquished by: 5		~~Received By:~~ 5 Brenda Ward	~~Custody Seal #~~ 7/18/17 5:45	Preserved where applicable	On Ice: X; Cooler Temp.: 4.6/4.5; Thermo. Corr. Factor: IR 3 -0.1

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 07/18/2017 05:45:00 PM

Work Order #: 557905

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

Temperature Measuring device used : IR-3

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**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: Brenda Ward Date: 07/19/2017
Brenda Ward

Checklist reviewed by: Kelsey Brooks Date: 07/19/2017
Kelsey Brooks

Certificate of Analysis Summary 561286

TRC Solutions, Inc, Midland, TX

Project Name: Jal #3 Field Scrubbers (Open Excavations)

Project Id:

Contact: Joel Lowry

Project Location: Lea County NM

Date Received in Lab: Fri Aug-25-17 02:00 pm

Report Date: 31-AUG-17

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	561286-001		561286-002		561286-003		561286-004					
	Field Id:	Exc. A TT @9		Exc. B TT @8		Exc. B SSWB		Exc. C TT @9					
	Depth:	9-0 ft		8-0 ft		7-5 ft		9-0 ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Aug-23-17 10:10		Aug-23-17 10:30		Aug-23-17 10:35		Aug-23-17 10:52					
BTEX by EPA 8021B	***Extracted:***	Aug-28-17 16:00		Aug-29-17 09:00		Aug-30-17 08:00		Aug-28-17 16:00					
	Analyzed:	Aug-28-17 23:54		Aug-29-17 19:27		Aug-30-17 13:56		Aug-29-17 00:13					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		0.00216	0.00202	<0.00952	0.00952	<0.00201	0.00201	<0.00202	0.00202				
Toluene		<0.00202	0.00202	<0.00952	0.00952	0.00848	0.00201	<0.00202	0.00202				
Ethylbenzene		0.00210	0.00202	<0.00952	0.00952	<0.00201	0.00201	<0.00202	0.00202				
m,p-Xylenes		0.00747	0.00404	<0.0190	0.0190	<0.00402	0.00402	<0.00404	0.00404				
o-Xylene		0.00585	0.00202	<0.00952	0.00952	<0.00201	0.00201	<0.00202	0.00202				
Total Xylenes		0.01332	0.00202	<0.00952	0.00952	<0.00201	0.00201	<0.00202	0.00202				
Total BTEX		0.01758	0.00202	<0.00952	0.00952	0.00848	0.00201	<0.00202	0.00202				
Chloride by EPA 300	***Extracted:***	Aug-29-17 16:15		Aug-29-17 16:15		Aug-29-17 16:15		Aug-29-17 16:15					
	Analyzed:	Aug-30-17 01:09		Aug-30-17 01:20		Aug-30-17 00:28		Aug-30-17 00:38					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		140	4.99	207	4.90	58.7	5.00	33.1	4.97				
TPH by SW8015 Mod	***Extracted:***	Aug-25-17 17:00		Aug-25-17 17:00		Aug-25-17 17:00		Aug-25-17 17:00					
	Analyzed:	Aug-26-17 15:18		Aug-26-17 00:25		Aug-26-17 15:38		Aug-26-17 01:06					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		40.3	15.0	<15.0	15.0	36.4	14.9	<15.0	15.0				
Diesel Range Organics (DRO)		779	15.0	<15.0	15.0	9230	14.9	<15.0	15.0				
Oil Range Hydrocarbons (ORO)		161	15.0	<15.0	15.0	2920	14.9	<15.0	15.0				
Total TPH		980.3	15	<15	15	12186.4	14.9	<15	15				

Kelsey Brooks
Project Manager

Analytical Report 561286

for

TRC Solutions, Inc

Project Manager: Joel Lowry

Jal #3 Field Scrubbers (Open Excavations)

31-AUG-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)

31-AUG-17

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **561286**
Jal #3 Field Scrubbers (Open Excavations)
Project Address: Lea County NM

Joel Lowry:

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) 561286. 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. 561286 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 561286

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (Open Excavations)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Exc. A TT @9	S	08-23-17 10:10	9 - 0 ft	561286-001
Exc. B TT @8	S	08-23-17 10:30	8 - 0 ft	561286-002
Exc. B SSWB	S	08-23-17 10:35	7 - 5 ft	561286-003
Exc. C TT @9	S	08-23-17 10:52	9 - 0 ft	561286-004

Client Name: TRC Solutions, Inc

Project Name: Jal #3 Field Scrubbers (Open Excavations)

Project ID:
Work Order Number(s): *561286*

Report Date: *31-AUG-17*
Date Received: *08/25/2017*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3026156 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3026246 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3026250 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 561286-003.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 561286

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (Open Excavations)

Sample Id:	**Exc. A TT @9**	Matrix:	Soil	Date Received:	08.25.17 14.00
Lab Sample Id:	561286-001	Date Collected:	08.23.17 10.10	Sample Depth:	9 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	08.29.17 16.15	Basis:	Wet Weight
Seq Number:	3026248				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**140**	4.99	mg/kg	08.30.17 01.09		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.25.17 17.00	Basis:	Wet Weight
Seq Number:	3026104				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**40.3**	15.0	mg/kg	08.26.17 15.18		1
Diesel Range Organics (DRO)	C10C28DRO	**779**	15.0	mg/kg	08.26.17 15.18		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**161**	15.0	mg/kg	08.26.17 15.18		1
Total TPH	PHC635	**980.3**	15	mg/kg	08.26.17 15.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.26.17 15.18	
o-Terphenyl	84-15-1	98	%	70-135	08.26.17 15.18	

Certificate of Analytical Results 561286

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (Open Excavations)

Sample Id:	**Exc. A TT @9**	Matrix:	Soil	Date Received:	08.25.17 14.00
Lab Sample Id:	561286-001	Date Collected:	08.23.17 10.10	Sample Depth:	9 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.28.17 16.00	Basis:	Wet Weight
Seq Number:	3026156				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00216**	0.00202	mg/kg	08.28.17 23.54		1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.28.17 23.54	U	1
Ethylbenzene	100-41-4	**0.00210**	0.00202	mg/kg	08.28.17 23.54		1
m,p-Xylenes	179601-23-1	**0.00747**	0.00404	mg/kg	08.28.17 23.54		1
o-Xylene	95-47-6	**0.00585**	0.00202	mg/kg	08.28.17 23.54		1
Total Xylenes	1330-20-7	**0.01332**	0.00202	mg/kg	08.28.17 23.54		1
Total BTEX		**0.01758**	0.00202	mg/kg	08.28.17 23.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	80-120	08.28.17 23.54	
4-Bromofluorobenzene	460-00-4	81	%	80-120	08.28.17 23.54	

Certificate of Analytical Results 561286

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (Open Excavations)

Sample Id:	**Exc. B TT @8**	Matrix:	Soil	Date Received:	08.25.17 14.00
Lab Sample Id:	561286-002	Date Collected:	08.23.17 10.30	Sample Depth:	8 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	08.29.17 16.15	Basis:	Wet Weight
Seq Number:	3026248				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**207**	4.90	mg/kg	08.30.17 01.20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.25.17 17.00	Basis:	Wet Weight
Seq Number:	3026104				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.26.17 00.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.26.17 00.25	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.26.17 00.25	U	1
Total TPH	PHC635	<15	15	mg/kg	08.26.17 00.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	08.26.17 00.25	
o-Terphenyl	84-15-1	112	%	70-135	08.26.17 00.25	

Certificate of Analytical Results 561286

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (Open Excavations)

Sample Id:	**Exc. B TT @8**	Matrix:	Soil	Date Received:	08.25.17 14.00
Lab Sample Id:	561286-002	Date Collected:	08.23.17 10.30	Sample Depth:	8 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.17 09.00	Basis:	Wet Weight
Seq Number:	3026246				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00952	0.00952	mg/kg	08.29.17 19.27	U	1
Toluene	108-88-3	<0.00952	0.00952	mg/kg	08.29.17 19.27	U	1
Ethylbenzene	100-41-4	<0.00952	0.00952	mg/kg	08.29.17 19.27	U	1
m,p-Xylenes	179601-23-1	<0.0190	0.0190	mg/kg	08.29.17 19.27	U	1
o-Xylene	95-47-6	<0.00952	0.00952	mg/kg	08.29.17 19.27	U	1
Total Xylenes	1330-20-7	<0.00952	0.00952	mg/kg	08.29.17 19.27	U	1
Total BTEX		<0.00952	0.00952	mg/kg	08.29.17 19.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.29.17 19.27	
4-Bromofluorobenzene	460-00-4	89	%	80-120	08.29.17 19.27	

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (Open Excavations)

Sample Id:	**Exc. B SSWB**	Matrix:	Soil	Date Received:	08.25.17 14.00
Lab Sample Id:	561286-003	Date Collected:	08.23.17 10.35	Sample Depth:	7 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	08.29.17 16.15	Basis:	Wet Weight
Seq Number:	3026248				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**58.7**	5.00	mg/kg	08.30.17 00.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.25.17 17.00	Basis:	Wet Weight
Seq Number:	3026104				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**36.4**	14.9	mg/kg	08.26.17 15.38		1
Diesel Range Organics (DRO)	C10C28DRO	**9230**	14.9	mg/kg	08.26.17 15.38		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**2920**	14.9	mg/kg	08.26.17 15.38		1
Total TPH	PHC635	**12186.4**	14.9	mg/kg	08.26.17 15.38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	08.26.17 15.38	
o-Terphenyl	84-15-1	97	%	70-135	08.26.17 15.38	

Certificate of Analytical Results 561286

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (Open Excavations)

Sample Id:	**Exc. B SSWB**	Matrix:	Soil	Date Received:	08.25.17 14.00
Lab Sample Id:	561286-003	Date Collected:	08.23.17 10.35	Sample Depth:	7 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.30.17 08.00	Basis:	Wet Weight
Seq Number:	3026250				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.30.17 13.56	U	1
Toluene	108-88-3	**0.00848**	0.00201	mg/kg	08.30.17 13.56		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.30.17 13.56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.30.17 13.56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.30.17 13.56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.30.17 13.56	U	1
Total BTEX		**0.00848**	0.00201	mg/kg	08.30.17 13.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	70	%	80-120	08.30.17 13.56	**
1,4-Difluorobenzene	540-36-3	111	%	80-120	08.30.17 13.56	

Certificate of Analytical Results 561286

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (Open Excavations)

Sample Id:	**Exc. C TT @9**	Matrix:	Soil	Date Received:	08.25.17 14.00
Lab Sample Id:	561286-004	Date Collected:	08.23.17 10.52	Sample Depth:	9 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	08.29.17 16.15	Basis:	Wet Weight
Seq Number:	3026248				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**33.1**	4.97	mg/kg	08.30.17 00.38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.25.17 17.00	Basis:	Wet Weight
Seq Number:	3026104				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.26.17 01.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.26.17 01.06	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.26.17 01.06	U	1
Total TPH	PHC635	<15	15	mg/kg	08.26.17 01.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.26.17 01.06	
o-Terphenyl	84-15-1	95	%	70-135	08.26.17 01.06	

Certificate of Analytical Results 561286

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (Open Excavations)

Sample Id:	**Exc. C TT @9**	Matrix:	Soil	Date Received:	08.25.17 14.00
Lab Sample Id:	561286-004	Date Collected:	08.23.17 10.52	Sample Depth:	9 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.28.17 16.00	Basis:	Wet Weight
Seq Number:	3026156				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.29.17 00.13	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.29.17 00.13	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.29.17 00.13	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.29.17 00.13	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.29.17 00.13	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.29.17 00.13	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.29.17 00.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	80-120	08.29.17 00.13	
1,4-Difluorobenzene	540-36-3	95	%	80-120	08.29.17 00.13	

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

	Phone	Fax
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	

QC Summary 561286

TRC Solutions, Inc

Jal #3 Field Scrubbers (Open Excavations)

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026248 Matrix: Solid Date Prep: 08.29.17
MB Sample Id: 730075-1-BLK LCS Sample Id: 730075-1-BKS LCSD Sample Id: 730075-1-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	247	99	90-110	0	20	mg/kg	08.29.17 20:19	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026248 Matrix: Soil Date Prep: 08.29.17
Parent Sample Id: 560863-007 MS Sample Id: 560863-007 S MSD Sample Id: 560863-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	998	247	1220	90	1200	82	90-110	2	20	mg/kg	08.29.17 23:15	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026248 Matrix: Soil Date Prep: 08.29.17
Parent Sample Id: 561383-021 MS Sample Id: 561383-021 S MSD Sample Id: 561383-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1290	245	1560	110	1560	110	90-110	0	20	mg/kg	08.29.17 20:50	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3026104 Matrix: Solid Date Prep: 08.25.17
MB Sample Id: 730028-1-BLK LCS Sample Id: 730028-1-BKS LCSD Sample Id: 730028-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1180	118	974	97	70-135	19	35	mg/kg	08.25.17 18:40	
Diesel Range Organics (DRO)	<15.0	1000	1210	121	1130	113	70-135	7	35	mg/kg	08.25.17 18:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		120		108		70-135	%	08.25.17 18:40
o-Terphenyl	105		113		102		70-135	%	08.25.17 18:40

QC Summary 561286

TRC Solutions, Inc

Jal #3 Field Scrubbers (Open Excavations)

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3026104 Matrix: Soil Date Prep: 08.25.17
Parent Sample Id: 561229-001 MS Sample Id: 561229-001 S MSD Sample Id: 561229-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	1100	110	1090	109	70-135	1	35	mg/kg	08.25.17 19:40	
Diesel Range Organics (DRO)	124	999	1210	109	1170	105	70-135	3	35	mg/kg	08.25.17 19:40	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		114		70-135	%	08.25.17 19:40
o-Terphenyl	104		99		70-135	%	08.25.17 19:40

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3026156 Matrix: Solid Date Prep: 08.28.17
MB Sample Id: 730048-1-BLK LCS Sample Id: 730048-1-BKS LCSD Sample Id: 730048-1-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	0.0994	0.116	117	0.119	119	70-130	3	35	mg/kg	08.28.17 20:28	
Toluene	<0.00199	0.0994	0.113	114	0.115	115	70-130	2	35	mg/kg	08.28.17 20:28	
Ethylbenzene	<0.00199	0.0994	0.112	113	0.114	114	71-129	2	35	mg/kg	08.28.17 20:28	
m,p-Xylenes	<0.00398	0.199	0.220	111	0.225	113	70-135	2	35	mg/kg	08.28.17 20:28	
o-Xylene	<0.00199	0.0994	0.106	107	0.109	109	71-133	3	35	mg/kg	08.28.17 20:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		97		97		80-120	%	08.28.17 20:28
4-Bromofluorobenzene	80		91		87		80-120	%	08.28.17 20:28

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3026246 Matrix: Solid Date Prep: 08.29.17
MB Sample Id: 730100-1-BLK LCS Sample Id: 730100-1-BKS LCSD Sample Id: 730100-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.115	115	0.120	119	70-130	4	35	mg/kg	08.29.17 09:19	
Toluene	<0.00201	0.100	0.113	113	0.118	117	70-130	4	35	mg/kg	08.29.17 09:19	
Ethylbenzene	<0.00201	0.100	0.114	114	0.120	119	71-129	5	35	mg/kg	08.29.17 09:19	
m,p-Xylenes	<0.00402	0.201	0.224	111	0.236	117	70-135	5	35	mg/kg	08.29.17 09:19	
o-Xylene	<0.00201	0.100	0.108	108	0.114	113	71-133	5	35	mg/kg	08.29.17 09:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		93		93		80-120	%	08.29.17 09:19
4-Bromofluorobenzene	84		90		90		80-120	%	08.29.17 09:19

QC Summary 561286

TRC Solutions, Inc

Jal #3 Field Scrubbers (Open Excavations)

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3026250 — Matrix: Solid — Date Prep: 08.30.17
MB Sample Id: 730108-1-BLK — LCS Sample Id: 730108-1-BKS — LCSD Sample Id: 730108-1-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	0.0998	0.116	116	0.114	114	70-130	2	35	mg/kg	08.30.17 10:00	
Toluene	<0.00200	0.0998	0.114	114	0.112	112	70-130	2	35	mg/kg	08.30.17 10:00	
Ethylbenzene	<0.00200	0.0998	0.115	115	0.113	113	71-129	2	35	mg/kg	08.30.17 10:00	
m,p-Xylenes	<0.00399	0.200	0.225	113	0.221	110	70-135	2	35	mg/kg	08.30.17 10:00	
o-Xylene	<0.00200	0.0998	0.109	109	0.107	107	71-133	2	35	mg/kg	08.30.17 10:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		91		84		80-120	%	08.30.17 10:00
4-Bromofluorobenzene	84		87		80		80-120	%	08.30.17 10:00

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3026156 — Matrix: Soil — Date Prep: 08.28.17
Parent Sample Id: 561227-001 — MS Sample Id: 561227-001 S — MSD Sample Id: 561227-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.100	99	0.0962	95	70-130	4	35	mg/kg	08.28.17 21:06	
Toluene	<0.00202	0.101	0.0908	90	0.0865	86	70-130	5	35	mg/kg	08.28.17 21:06	
Ethylbenzene	<0.00202	0.101	0.0785	78	0.0805	80	71-129	3	35	mg/kg	08.28.17 21:06	
m,p-Xylenes	<0.00403	0.202	0.151	75	0.154	76	70-135	2	35	mg/kg	08.28.17 21:06	
o-Xylene	<0.00202	0.101	0.0750	74	0.0786	78	71-133	5	35	mg/kg	08.28.17 21:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		94		80-120	%	08.28.17 21:06
4-Bromofluorobenzene	88		84		80-120	%	08.28.17 21:06

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3026246 — Matrix: Soil — Date Prep: 08.29.17
Parent Sample Id: 561286-002 — MS Sample Id: 561286-002 S — MSD Sample Id: 561286-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00364	0.182	0.205	113	0.230	123	70-130	11	35	mg/kg	08.29.17 11:13	
Toluene	<0.00364	0.182	0.197	108	0.202	108	70-130	3	35	mg/kg	08.29.17 11:13	
Ethylbenzene	<0.00364	0.182	0.194	107	0.168	90	71-129	14	35	mg/kg	08.29.17 11:13	
m,p-Xylenes	<0.00727	0.364	0.379	104	0.304	81	70-135	22	35	mg/kg	08.29.17 11:13	
o-Xylene	<0.00364	0.182	0.184	101	0.176	94	71-133	4	35	mg/kg	08.29.17 11:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		117		80-120	%	08.29.17 11:13
4-Bromofluorobenzene	88		91		80-120	%	08.29.17 11:13

QC Summary 561286

TRC Solutions, Inc

Jal #3 Field Scrubbers (Open Excavations)

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3026250 Matrix: Soil Date Prep: 08.30.17

Parent Sample Id: 561411-004 MS Sample Id: 561411-004 S MSD Sample Id: 561411-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0803	80	0.0761	75	70-130	5	35	mg/kg	08.30.17 10:38	
Toluene	<0.00202	0.101	0.0760	75	0.0710	70	70-130	7	35	mg/kg	08.30.17 10:38	
Ethylbenzene	<0.00202	0.101	0.0732	72	0.0662	66	71-129	10	35	mg/kg	08.30.17 10:38	X
m,p-Xylenes	<0.00403	0.202	0.143	71	0.128	63	70-135	11	35	mg/kg	08.30.17 10:38	X
o-Xylene	<0.00202	0.101	0.0724	72	0.0685	68	71-133	6	35	mg/kg	08.30.17 10:38	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		80-120	%	08.30.17 10:38
4-Bromofluorobenzene	98		96		80-120	%	08.30.17 10:38

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

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Xenco Quote # | Xenco Job # 561286

Client / Reporting Information

Company Name / Branch: TRC Environmental
Company Address: 2057 Commerce Drive, Midland, TX 79703
Email: jlowry@trcsolutions.com | Phone No:
Project Contact: Joel Lowry
Samplers's Name Joel Lowry

Project Information

Project Name/Number: Jal #3 Field Scrubbers (Open Excavations)
Project Location: Lea Co, NM
Invoice To: ETC Field Services, C/O Rose Slade
PO Number: SRS Pending

Analytical Information

TPH 8015M Ext
BTEX 8021 B
Cl- E300

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH	BTEX	Cl-	Field Comments
1	Exc. A TT @ 9'	9'	8/23/17	10:10	S	1									X	X	X	
2	Exc. B TT @ 8'	8'	8/23/17	10:30	S										X	X	X	
3	Exc. B SSW b	2.5'	8/23/17	10:35	S										X	X	X	
4	Exc. C TT @ 9'	9'	8/17/17	10:52	S										X	X	X	
5																		
6																		
7																		
8																		
9																		
10																		

Temp: 3.3 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.1

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level III Std QC+ Forms
- [ ] Level 3 (CLP Forms)
- [ ] TRRP Checklist
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] TRRP Level IV
- [ ] UST / RG -411

Email to Rose and Joel

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joel Lowry	8/25/17 1400	1	2	8/25/17 1400	2 C Williams
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice ☑ Cooler Temp. Thermo. Corr. Factor

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 08/25/2017 02:00:00 PM

Work Order #: 561286

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

Temperature Measuring device used : r-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**No**
#21 VOC samples have zero headspace?	**N/A**

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

Analyst:

PH Device/Lot#:

Checklist completed by: Jessica Kramer
Jessica Kramer
Date: 08/25/2017

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks
Date: 08/25/2017

Certificate of Analysis Summary 561489

TRC Solutions, Inc, Midland, TX

Project Name: Jal #3 Field Scrubbers (North BGT)

Project Id:
Contact: Joel Lowry
Project Location: Lea County NM

Date Received in Lab: Tue Aug-29-17 04:55 pm
Report Date: 05-SEP-17
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	561489-001		561489-002		561489-003		561489-004		561489-005	
	Field Id:	N.BGT Floor @18'		N. BGT NSW		N. BGT ESW		N. BGT SSW		N. BGT WSW	
	Depth:	18- ft		13- ft		13- ft		13- ft		13- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-28-17 11:15		Aug-28-17 11:25		Aug-28-17 11:35		Aug-28-17 11:45		Aug-28-17 11:55	
BTEX by EPA 8021B	**Extracted:**	Sep-05-17 08:30		Sep-05-17 08:30		Sep-05-17 08:30		Sep-01-17 11:00		Sep-05-17 08:30	
	Analyzed:	Sep-05-17 10:51		Sep-05-17 09:51		Sep-05-17 10:31		Sep-02-17 11:18		Sep-05-17 09:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.0502	0.0502	<0.00202	0.00202
Toluene		0.0223	0.00199	<0.00200	0.00200	<0.00201	0.00201	0.584	0.0502	<0.00202	0.00202
Ethylbenzene		0.0773	0.00199	<0.00200	0.00200	<0.00201	0.00201	1.02	0.0502	<0.00202	0.00202
m,p-Xylenes		0.0812	0.00398	<0.00399	0.00399	0.00404	0.00402	4.48	0.100	<0.00403	0.00403
o-Xylene		0.160	0.00199	<0.00200	0.00200	0.00596	0.00201	3.58	0.0502	<0.00202	0.00202
Total Xylenes		0.2412	0.00199	<0.002	0.002	0.01	0.00201	8.06	0.0502	<0.00202	0.00202
Total BTEX		0.3408	0.00199	<0.002	0.002	0.01	0.00201	9.664	0.0502	<0.00202	0.00202
Chloride by EPA 300	**Extracted:**	Sep-01-17 11:00		Sep-01-17 11:00		Sep-01-17 11:00		Sep-01-17 11:00		Sep-01-17 14:25	
	Analyzed:	Sep-01-17 15:26		Sep-01-17 16:06		Sep-01-17 16:16		Sep-01-17 16:27		Sep-01-17 16:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		88.9	5.00	21.7	5.00	61.4	5.00	104	5.00	24.1	5.00
TPH by SW8015 Mod	**Extracted:**	Aug-30-17 18:00		Aug-30-17 18:00		Aug-30-17 18:00		Aug-30-17 18:00		Aug-30-17 18:00	
	Analyzed:	Aug-31-17 04:59		Aug-31-17 05:20		Aug-31-17 05:42		Aug-31-17 06:03		Aug-31-17 06:23	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		26.5	15.0	<15.0	15.0	<15.0	15.0	492	14.9	<15.0	15.0
Diesel Range Organics (DRO)		345	15.0	<15.0	15.0	190	15.0	1130	14.9	<15.0	15.0
Oil Range Hydrocarbons (ORO)		110	15.0	<15.0	15.0	53.5	15.0	310	14.9	<15.0	15.0
Total TPH		481.5	15	<15	15	243.5	15	1932	14.9	<15	15

Julian Martinez
Project Manager

Analytical Report 561489

for

TRC Solutions, Inc

Project Manager: Joel Lowry

Jal #3 Field Scrubbers (North BGT)

05-SEP-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)

05-SEP-17

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **561489**
Jal #3 Field Scrubbers (North BGT)
Project Address: Lea County NM

Joel Lowry:

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) 561489. 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. 561489 will be filed for 45 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,

Julian Martinez
Project Manager

Sample Cross Reference 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
N.BGT Floor @18'	S	08-28-17 11:15	18 ft	561489-001
N. BGT NSW	S	08-28-17 11:25	13 ft	561489-002
N. BGT ESW	S	08-28-17 11:35	13 ft	561489-003
N. BGT SSW	S	08-28-17 11:45	13 ft	561489-004
N. BGT WSW	S	08-28-17 11:55	13 ft	561489-005

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3026474 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3026700 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**N.BGT Floor @18'**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561489-001	Date Collected:	08.28.17 11.15	Sample Depth:	18 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**88.9**	5.00	mg/kg	09.01.17 15.26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.30.17 18.00	Basis:	Wet Weight
Seq Number:	3026607				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**26.5**	15.0	mg/kg	08.31.17 04.59		1
Diesel Range Organics (DRO)	C10C28DRO	**345**	15.0	mg/kg	08.31.17 04.59		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**110**	15.0	mg/kg	08.31.17 04.59		1
Total TPH	PHC635	**481.5**	15	mg/kg	08.31.17 04.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	08.31.17 04.59	
o-Terphenyl	84-15-1	110	%	70-135	08.31.17 04.59	

Certificate of Analytical Results 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**N.BGT Floor @18'**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561489-001	Date Collected:	08.28.17 11.15	Sample Depth:	18 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.05.17 08.30	Basis:	Wet Weight
Seq Number:	3026700				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.05.17 10.51	U	1
Toluene	108-88-3	**0.0223**	0.00199	mg/kg	09.05.17 10.51		1
Ethylbenzene	100-41-4	**0.0773**	0.00199	mg/kg	09.05.17 10.51		1
m,p-Xylenes	179601-23-1	**0.0812**	0.00398	mg/kg	09.05.17 10.51		1
o-Xylene	95-47-6	**0.160**	0.00199	mg/kg	09.05.17 10.51		1
Total Xylenes	1330-20-7	**0.2412**	0.00199	mg/kg	09.05.17 10.51		1
Total BTEX		**0.3408**	0.00199	mg/kg	09.05.17 10.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	80-120	09.05.17 10.51	
1,4-Difluorobenzene	540-36-3	91	%	80-120	09.05.17 10.51	

Certificate of Analytical Results 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**N. BGT NSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561489-002	Date Collected:	08.28.17 11.25	Sample Depth:	13 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21.7**	5.00	mg/kg	09.01.17 16.06		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.30.17 18.00	Basis:	Wet Weight
Seq Number:	3026607				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.31.17 05.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.31.17 05.20	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.31.17 05.20	U	1
Total TPH	PHC635	<15	15	mg/kg	08.31.17 05.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	08.31.17 05.20	
o-Terphenyl	84-15-1	116	%	70-135	08.31.17 05.20	

Certificate of Analytical Results 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**N. BGT NSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561489-002	Date Collected:	08.28.17 11.25	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.05.17 08.30	Basis:	Wet Weight
Seq Number:	3026700				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.05.17 09.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.05.17 09.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.05.17 09.51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.05.17 09.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.05.17 09.51	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	09.05.17 09.51	U	1
Total BTEX		<0.002	0.002	mg/kg	09.05.17 09.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	80-120	09.05.17 09.51	
4-Bromofluorobenzene	460-00-4	102	%	80-120	09.05.17 09.51	

Certificate of Analytical Results 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**N. BGT ESW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561489-003	Date Collected:	08.28.17 11.35	Sample Depth:	13 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**61.4**	5.00	mg/kg	09.01.17 16.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.30.17 18.00	Basis:	Wet Weight
Seq Number:	3026607				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.31.17 05.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	**190**	15.0	mg/kg	08.31.17 05.42		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**53.5**	15.0	mg/kg	08.31.17 05.42		1
Total TPH	PHC635	**243.5**	15	mg/kg	08.31.17 05.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.31.17 05.42	
o-Terphenyl	84-15-1	96	%	70-135	08.31.17 05.42	

Certificate of Analytical Results 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**N. BGT ESW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561489-003	Date Collected:	08.28.17 11.35	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.05.17 08.30	Basis:	Wet Weight
Seq Number:	3026700				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.05.17 10.31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.05.17 10.31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.05.17 10.31	U	1
m,p-Xylenes	179601-23-1	**0.00404**	0.00402	mg/kg	09.05.17 10.31		1
o-Xylene	95-47-6	**0.00596**	0.00201	mg/kg	09.05.17 10.31		1
Total Xylenes	1330-20-7	**0.01**	0.00201	mg/kg	09.05.17 10.31		1
Total BTEX		**0.01**	0.00201	mg/kg	09.05.17 10.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	80-120	09.05.17 10.31	
4-Bromofluorobenzene	460-00-4	102	%	80-120	09.05.17 10.31	

Certificate of Analytical Results 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**N. BGT SSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561489-004	Date Collected:	08.28.17 11.45	Sample Depth:	13 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**104**	5.00	mg/kg	09.01.17 16.27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.30.17 18.00	Basis:	Wet Weight
Seq Number:	3026607				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**492**	14.9	mg/kg	08.31.17 06.03		1
Diesel Range Organics (DRO)	C10C28DRO	**1130**	14.9	mg/kg	08.31.17 06.03		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**310**	14.9	mg/kg	08.31.17 06.03		1
Total TPH	PHC635	**1932**	14.9	mg/kg	08.31.17 06.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.31.17 06.03	
o-Terphenyl	84-15-1	97	%	70-135	08.31.17 06.03	

Certificate of Analytical Results 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**N. BGT SSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561489-004	Date Collected:	08.28.17 11.45	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	JUM	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026474				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0502	0.0502	mg/kg	09.02.17 11.18	U	25
Toluene	108-88-3	**0.584**	0.0502	mg/kg	09.02.17 11.18		25
Ethylbenzene	100-41-4	**1.02**	0.0502	mg/kg	09.02.17 11.18		25
m,p-Xylenes	179601-23-1	**4.48**	0.100	mg/kg	09.02.17 11.18		25
o-Xylene	95-47-6	**3.58**	0.0502	mg/kg	09.02.17 11.18		25
Total Xylenes	1330-20-7	**8.06**	0.0502	mg/kg	09.02.17 11.18		25
Total BTEX		**9.664**	0.0502	mg/kg	09.02.17 11.18		25

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	80-120	09.02.17 11.18	
1,4-Difluorobenzene	540-36-3	107	%	80-120	09.02.17 11.18	

Certificate of Analytical Results 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**N. BGT WSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561489-005	Date Collected:	08.28.17 11.55	Sample Depth:	13 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	09.01.17 14.25	Basis:	Wet Weight
Seq Number:	3026651				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.1**	5.00	mg/kg	09.01.17 16.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.30.17 18.00	Basis:	Wet Weight
Seq Number:	3026607				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.31.17 06.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.31.17 06.23	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.31.17 06.23	U	1
Total TPH	PHC635	<15	15	mg/kg	08.31.17 06.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	08.31.17 06.23	
o-Terphenyl	84-15-1	107	%	70-135	08.31.17 06.23	

Certificate of Analytical Results 561489

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**N. BGT WSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561489-005	Date Collected:	08.28.17 11.55	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.05.17 08.30	Basis:	Wet Weight
Seq Number:	3026700				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.05.17 09.32	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.05.17 09.32	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.05.17 09.32	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.05.17 09.32	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.05.17 09.32	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.05.17 09.32	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.05.17 09.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	80-120	09.05.17 09.32	
4-Bromofluorobenzene	460-00-4	104	%	80-120	09.05.17 09.32	

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

QC Summary 561489

TRC Solutions, Inc

Jal #3 Field Scrubbers (North BGT)

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026481 Matrix: Solid Date Prep: 09.01.17
MB Sample Id: 730241-1-BLK LCS Sample Id: 730241-1-BKS LCSD Sample Id: 730241-1-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	254	102	90-110	3	20	mg/kg	09.01.17 12:51	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026651 Matrix: Solid Date Prep: 09.01.17
MB Sample Id: 730327-1-BLK LCS Sample Id: 730327-1-BKS LCSD Sample Id: 730327-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	249	100	249	100	90-110	0	20	mg/kg	09.01.17 20:31	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026481 Matrix: Soil Date Prep: 09.01.17
Parent Sample Id: 561490-005 MS Sample Id: 561490-005 S MSD Sample Id: 561490-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.5	250	254	93	254	93	90-110	0	20	mg/kg	09.01.17 15:06	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026481 Matrix: Soil Date Prep: 09.01.17
Parent Sample Id: 561776-001 MS Sample Id: 561776-001 S MSD Sample Id: 561776-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	30.2	250	260	92	261	92	90-110	0	20	mg/kg	09.01.17 12:20	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026651 Matrix: Soil Date Prep: 09.01.17
Parent Sample Id: 561317-002 MS Sample Id: 561317-002 S MSD Sample Id: 561317-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1180	245	1410	94	1410	94	90-110	0	20	mg/kg	09.01.17 21:02	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026651 Matrix: Soil Date Prep: 09.01.17
Parent Sample Id: 561526-001 MS Sample Id: 561526-001 S MSD Sample Id: 561526-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	199	246	459	106	458	105	90-110	0	20	mg/kg	09.01.17 23:27	

QC Summary 561489

TRC Solutions, Inc

Jal #3 Field Scrubbers (North BGT)

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3026607 Matrix: Solid Date Prep: 08.30.17
MB Sample Id: 730145-1-BLK LCS Sample Id: 730145-1-BKS LCSD Sample Id: 730145-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	876	88	846	85	70-135	3	35	mg/kg	09.05.17 09:38	
Diesel Range Organics (DRO)	<15.0	1000	1050	105	1040	104	70-135	1	35	mg/kg	09.05.17 09:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		112		109		70-135	%	09.05.17 09:38
o-Terphenyl	103		101		97		70-135	%	09.05.17 09:38

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3026607 Matrix: Soil Date Prep: 08.30.17
Parent Sample Id: 561470-001 MS Sample Id: 561470-001 S MSD Sample Id: 561470-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	924	93	880	88	70-135	5	35	mg/kg	09.05.17 09:38	
Diesel Range Organics (DRO)	25.6	998	1020	100	1060	104	70-135	4	35	mg/kg	09.05.17 09:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		106		70-135	%	09.05.17 09:38
o-Terphenyl	97		95		70-135	%	09.05.17 09:38

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3026474 Matrix: Solid Date Prep: 09.01.17
MB Sample Id: 730240-1-BLK LCS Sample Id: 730240-1-BKS LCSD Sample Id: 730240-1-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	0.101	101	0.106	106	70-130	5	35	mg/kg	09.01.17 11:55	
Toluene	<0.00200	0.100	0.100	100	0.105	105	70-130	5	35	mg/kg	09.01.17 11:55	
Ethylbenzene	<0.00200	0.100	0.102	102	0.106	106	71-129	4	35	mg/kg	09.01.17 11:55	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.207	104	70-135	4	35	mg/kg	09.01.17 11:55	
o-Xylene	<0.00200	0.100	0.0972	97	0.102	102	71-133	5	35	mg/kg	09.01.17 11:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		94		95		80-120	%	09.01.17 11:55
4-Bromofluorobenzene	93		101		103		80-120	%	09.01.17 11:55

QC Summary 561489

TRC Solutions, Inc

Jal #3 Field Scrubbers (North BGT)

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3026700 Matrix: Solid Date Prep: 09.05.17
MB Sample Id: 730377-1-BLK LCS Sample Id: 730377-1-BKS LCSD Sample Id: 730377-1-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	0.104	104	0.103	103	70-130	1	35	mg/kg	09.05.17 07:57	
Toluene	<0.00200	0.100	0.102	102	0.101	101	70-130	1	35	mg/kg	09.05.17 07:57	
Ethylbenzene	<0.00200	0.100	0.101	101	0.100	100	71-129	1	35	mg/kg	09.05.17 07:57	
m,p-Xylenes	<0.00401	0.200	0.198	99	0.196	98	70-135	1	35	mg/kg	09.05.17 07:57	
o-Xylene	<0.00200	0.100	0.0952	95	0.0945	95	71-133	1	35	mg/kg	09.05.17 07:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		97		96		80-120	%	09.05.17 07:57
4-Bromofluorobenzene	99		105		103		80-120	%	09.05.17 07:57

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3026474 Matrix: Soil Date Prep: 09.01.17
Parent Sample Id: 561776-001 MS Sample Id: 561776-001 S MSD Sample Id: 561776-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0909	91	0.0922	92	70-130	1	35	mg/kg	09.01.17 12:31	
Toluene	<0.00200	0.100	0.0857	86	0.0894	89	70-130	4	35	mg/kg	09.01.17 12:31	
Ethylbenzene	<0.00200	0.100	0.0842	84	0.0865	87	71-129	3	35	mg/kg	09.01.17 12:31	
m,p-Xylenes	<0.00400	0.200	0.164	82	0.167	84	70-135	2	35	mg/kg	09.01.17 12:31	
o-Xylene	<0.00200	0.100	0.0836	84	0.0831	83	71-133	1	35	mg/kg	09.01.17 12:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		97		80-120	%	09.01.17 12:31
4-Bromofluorobenzene	109		110		80-120	%	09.01.17 12:31

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3026700 Matrix: Soil Date Prep: 09.05.17
Parent Sample Id: 561383-008 MS Sample Id: 561383-008 S MSD Sample Id: 561383-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.103	103	0.104	104	70-130	1	35	mg/kg	09.05.17 16:23	
Toluene	<0.00200	0.0998	0.100	100	0.101	101	70-130	1	35	mg/kg	09.05.17 16:23	
Ethylbenzene	<0.00200	0.0998	0.0969	97	0.0982	98	71-129	1	35	mg/kg	09.05.17 16:23	
m,p-Xylenes	<0.00399	0.200	0.189	95	0.191	96	70-135	1	35	mg/kg	09.05.17 16:23	
o-Xylene	<0.00200	0.0998	0.0918	92	0.0932	93	71-133	2	35	mg/kg	09.05.17 16:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		106		80-120	%	09.05.17 16:23
4-Bromofluorobenzene	114		116		80-120	%	09.05.17 16:23

CHAIN OF CUSTODY

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Xenco Quote #

Xenco Job # 561489

Client / Reporting Information

Company Name / Branch: TRC Environmental
Company Address: 2057 Commerce Drive, Midland, TX 79703
Email: jlowry@trcsolutions.com
Phone No:
Project Contact: Joel Lowry
Samplers's Name Joel Lowry

Project Information

Project Name/Number: Jal #3 Field Scrubbers (North BGT)
Project Location: Lea Co, NM
Invoice To: ETC Field Services, CO Rose Slade
Invoice: Consult Rose Slade for AFE No.

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH 8015 M Ext	Chloride E 300	BTEX 8021B	Field Comments
1	N. BGT Floor @ 18'	18'	8/28/2017	11:15	S	1									x	x	x	
2	N. BGT NSW	13'	8/28/2017	1125	S	1									x	x	x	
3	N. BGT ESW	13'	8/28/2017	1135	S	1									x	x	x	
4	N. BGT SSW	13'	8/28/2017	1145	S	1									x	x	x	
5	N. BGT WSW	13'	8/28/2017	1155	S	1									x	x	x	
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

Email Rose Slade and Joel Lowry

Temp: 1.9 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.7

FED-EX / U

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished By	Date Time	Received By	Relinquished By	Date Time	Received By
1	Joel Lowry	8/29/17 16:55	1	2		2
3			3	4		4
5			5	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. Thermo. Corr. Factor

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 08/29/2017 04:55:00 PM

Work Order #: 561489

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.7
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**No**
#21 VOC samples have zero headspace?	**N/A**

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

Analyst:

PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 08/30/2017

Shawnee Smith

Checklist reviewed by: Kelsey Brooks Date: 08/30/2017

Kelsey Brooks

Certificate of Analysis Summary 561490

TRC Solutions, Inc, Midland, TX

Project Name: Jal #3 Field Scrubbers (North BGT)

Project Id:
Contact: Joel Lowry
Project Location: Lea County NM

Date Received in Lab: Tue Aug-29-17 04:55 pm
Report Date: 05-SEP-17
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	561490-001		561490-002		561490-003		561490-004		561490-005	
	Field Id:	S.BGT Floor @18'		S. BGT NSW		S. BGT ESW		S. BGT SSW		S. BGT WSW	
	Depth:	18- ft		13- ft		13- ft		13- ft		13- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-28-17 13:20		Aug-28-17 13:30		Aug-28-17 13:40		Aug-28-17 13:50		Aug-28-17 14:00	
BTEX by EPA 8021B	***Extracted:***	Sep-01-17 11:00		Sep-01-17 11:00		Sep-01-17 11:00		Sep-01-17 11:00		Sep-05-17 08:30	
	Analyzed:	Sep-02-17 10:21		Sep-02-17 11:56		Sep-02-17 12:15		Sep-02-17 11:37		Sep-05-17 12:26	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.202	0.202	<0.100	0.100	15.6	0.199	<0.0499	0.0499	<0.101	0.101
Toluene		0.443	0.202	4.33	0.100	38.6	0.199	<0.0499	0.0499	1.90	0.101
Ethylbenzene		0.661	0.202	6.80	0.100	20.4	0.199	1.04	0.0499	3.23	0.101
m,p-Xylenes		4.46	0.404	23.7	0.201	50.8	0.398	5.78	0.0998	33.9	0.202
o-Xylene		2.03	0.202	5.30	0.100	9.64	0.199	2.96	0.0499	7.05	0.101
Total Xylenes		6.49	0.202	29	0.1	60.44	0.199	8.74	0.0499	40.95	0.101
Total BTEX		7.594	0.202	40.13	0.1	135.04	0.199	9.78	0.0499	46.08	0.101
Chloride by EPA 300	***Extracted:***	Sep-01-17 11:00		Sep-01-17 11:00		Sep-01-17 11:00		Sep-01-17 11:00		Sep-01-17 11:00	
	Analyzed:	Sep-01-17 14:14		Sep-01-17 14:24		Sep-01-17 14:35		Sep-01-17 14:45		Sep-01-17 14:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		105	5.00	313	5.00	95.6	5.00	62.2	5.00	22.5	5.00
TPH by SW8015 Mod	***Extracted:***	Aug-30-17 10:00		Aug-30-17 10:00		Aug-30-17 10:00		Aug-30-17 10:00		Aug-31-17 16:00	
	Analyzed:	Aug-31-17 07:04		Sep-05-17 09:35		Sep-05-17 09:35		Sep-05-17 09:35		Sep-01-17 01:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		264	15.0	1290	74.9	2300	74.8	335	14.9	2540	74.9
Diesel Range Organics (DRO)		979	15.0	3160	74.9	15400	74.8	577	14.9	2220	74.9
Oil Range Hydrocarbons (ORO)		249	15.0	486	74.9	2500	74.8	65.5	14.9	671	74.9
Total TPH		1492	15	4936	74.9	20200	74.8	977.5	14.9	5431	74.9

Julian Martinez
Project Manager

Analytical Report 561490

for

TRC Solutions, Inc

Project Manager: Joel Lowry

Jal #3 Field Scrubbers (North BGT)

05-SEP-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)

05-SEP-17

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **561490**
Jal #3 Field Scrubbers (North BGT)
Project Address: Lea County NM

Joel Lowry:

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) 561490. 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. 561490 will be filed for 45 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,

Julian Martinez
Project Manager

Sample Cross Reference 561490

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S.BGT Floor @18'	S	08-28-17 13:20	18 ft	561490-001
S. BGT NSW	S	08-28-17 13:30	13 ft	561490-002
S. BGT ESW	S	08-28-17 13:40	13 ft	561490-003
S. BGT SSW	S	08-28-17 13:50	13 ft	561490-004
S. BGT WSW	S	08-28-17 14:00	13 ft	561490-005

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3026474 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3026700 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 561490

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**S.BGT Floor @18'**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561490-001	Date Collected:	08.28.17 13.20	Sample Depth:	18 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**105**	5.00	mg/kg	09.01.17 14.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.30.17 10.00	Basis:	Wet Weight
Seq Number:	3026606				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**264**	15.0	mg/kg	08.31.17 07.04		1
Diesel Range Organics (DRO)	C10C28DRO	**979**	15.0	mg/kg	08.31.17 07.04		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**249**	15.0	mg/kg	08.31.17 07.04		1
Total TPH	PHC635	**1492**	15	mg/kg	08.31.17 07.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	08.31.17 07.04	
o-Terphenyl	84-15-1	102	%	70-135	08.31.17 07.04	

Certificate of Analytical Results 561490

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**S.BGT Floor @18'**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561490-001	Date Collected:	08.28.17 13.20	Sample Depth:	18 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	JUM	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026474				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.202	0.202	mg/kg	09.02.17 10.21	U	100
Toluene	108-88-3	**0.443**	0.202	mg/kg	09.02.17 10.21		100
Ethylbenzene	100-41-4	**0.661**	0.202	mg/kg	09.02.17 10.21		100
m,p-Xylenes	179601-23-1	**4.46**	0.404	mg/kg	09.02.17 10.21		100
o-Xylene	95-47-6	**2.03**	0.202	mg/kg	09.02.17 10.21		100
Total Xylenes	1330-20-7	**6.49**	0.202	mg/kg	09.02.17 10.21		100
Total BTEX		**7.594**	0.202	mg/kg	09.02.17 10.21		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	80-120	09.02.17 10.21	
1,4-Difluorobenzene	540-36-3	81	%	80-120	09.02.17 10.21	

Certificate of Analytical Results 561490

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**S. BGT NSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561490-002	Date Collected:	08.28.17 13.30	Sample Depth:	13 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**313**	5.00	mg/kg	09.01.17 14.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.30.17 10.00	Basis:	Wet Weight
Seq Number:	3026606				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1290**	74.9	mg/kg	09.05.17 09.35		5
Diesel Range Organics (DRO)	C10C28DRO	**3160**	74.9	mg/kg	09.05.17 09.35		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**486**	74.9	mg/kg	09.05.17 09.35		5
Total TPH	PHC635	**4936**	74.9	mg/kg	09.05.17 09.35		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	09.05.17 09.35	
o-Terphenyl	84-15-1	125	%	70-135	09.05.17 09.35	

Certificate of Analytical Results 561490

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**S. BGT NSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561490-002	Date Collected:	08.28.17 13.30	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	JUM	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026474				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.100	0.100	mg/kg	09.02.17 11.56	U	50
Toluene	108-88-3	**4.33**	0.100	mg/kg	09.02.17 11.56		50
Ethylbenzene	100-41-4	**6.80**	0.100	mg/kg	09.02.17 11.56		50
m,p-Xylenes	179601-23-1	**23.7**	0.201	mg/kg	09.02.17 11.56		50
o-Xylene	95-47-6	**5.30**	0.100	mg/kg	09.02.17 11.56		50
Total Xylenes	1330-20-7	**29**	0.1	mg/kg	09.02.17 11.56		50
Total BTEX		**40.13**	0.1	mg/kg	09.02.17 11.56		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	80-120	09.02.17 11.56	
4-Bromofluorobenzene	460-00-4	106	%	80-120	09.02.17 11.56	

Certificate of Analytical Results 561490

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**S. BGT ESW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561490-003	Date Collected:	08.28.17 13.40	Sample Depth:	13 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**95.6**	5.00	mg/kg	09.01.17 14.35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.30.17 10.00	Basis:	Wet Weight
Seq Number:	3026606				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2300**	74.8	mg/kg	09.05.17 09.35		5
Diesel Range Organics (DRO)	C10C28DRO	**15400**	74.8	mg/kg	09.05.17 09.35		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**2500**	74.8	mg/kg	09.05.17 09.35		5
Total TPH	PHC635	**20200**	74.8	mg/kg	09.05.17 09.35		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	09.05.17 09.35	
o-Terphenyl	84-15-1	86	%	70-135	09.05.17 09.35	

Certificate of Analytical Results 561490

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**S. BGT ESW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561490-003	Date Collected:	08.28.17 13.40	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	JUM	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026474				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**15.6**	0.199	mg/kg	09.02.17 12.15		100
Toluene	108-88-3	**38.6**	0.199	mg/kg	09.02.17 12.15		100
Ethylbenzene	100-41-4	**20.4**	0.199	mg/kg	09.02.17 12.15		100
m,p-Xylenes	179601-23-1	**50.8**	0.398	mg/kg	09.02.17 12.15		100
o-Xylene	95-47-6	**9.64**	0.199	mg/kg	09.02.17 12.15		100
Total Xylenes	1330-20-7	**60.44**	0.199	mg/kg	09.02.17 12.15		100
Total BTEX		**135.04**	0.199	mg/kg	09.02.17 12.15		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	80-120	09.02.17 12.15	
1,4-Difluorobenzene	540-36-3	117	%	80-120	09.02.17 12.15	

Certificate of Analytical Results 561490

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**S. BGT SSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561490-004	Date Collected:	08.28.17 13.50	Sample Depth:	13 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**62.2**	5.00	mg/kg	09.01.17 14.45		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.30.17 10.00	Basis:	Wet Weight
Seq Number:	3026606				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**335**	14.9	mg/kg	09.05.17 09.35		1
Diesel Range Organics (DRO)	C10C28DRO	**577**	14.9	mg/kg	09.05.17 09.35		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**65.5**	14.9	mg/kg	09.05.17 09.35		1
Total TPH	PHC635	**977.5**	14.9	mg/kg	09.05.17 09.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	09.05.17 09.35	
o-Terphenyl	84-15-1	108	%	70-135	09.05.17 09.35	

Certificate of Analytical Results 561490

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**S. BGT SSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561490-004	Date Collected:	08.28.17 13.50	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	JUM	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026474				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0499	0.0499	mg/kg	09.02.17 11.37	U	25
Toluene	108-88-3	<0.0499	0.0499	mg/kg	09.02.17 11.37	U	25
Ethylbenzene	100-41-4	**1.04**	0.0499	mg/kg	09.02.17 11.37		25
m,p-Xylenes	179601-23-1	**5.78**	0.0998	mg/kg	09.02.17 11.37		25
o-Xylene	95-47-6	**2.96**	0.0499	mg/kg	09.02.17 11.37		25
Total Xylenes	1330-20-7	**8.74**	0.0499	mg/kg	09.02.17 11.37		25
Total BTEX		**9.78**	0.0499	mg/kg	09.02.17 11.37		25

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	80-120	09.02.17 11.37	
1,4-Difluorobenzene	540-36-3	101	%	80-120	09.02.17 11.37	

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TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**S. BGT WSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561490-005	Date Collected:	08.28.17 14.00	Sample Depth:	13 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	09.01.17 11.00	Basis:	Wet Weight
Seq Number:	3026481				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.5**	5.00	mg/kg	09.01.17 14.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.31.17 16.00	Basis:	Wet Weight
Seq Number:	3026608				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2540**	74.9	mg/kg	09.01.17 01.07		5
Diesel Range Organics (DRO)	C10C28DRO	**2220**	74.9	mg/kg	09.01.17 01.07		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**671**	74.9	mg/kg	09.01.17 01.07		5
Total TPH	PHC635	**5431**	74.9	mg/kg	09.01.17 01.07		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	09.01.17 01.07	
o-Terphenyl	84-15-1	97	%	70-135	09.01.17 01.07	

Certificate of Analytical Results 561490

TRC Solutions, Inc, Midland, TX

Jal #3 Field Scrubbers (North BGT)

Sample Id:	**S. BGT WSW**	Matrix:	Soil	Date Received:	08.29.17 16.55
Lab Sample Id:	561490-005	Date Collected:	08.28.17 14.00	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.05.17 08.30	Basis:	Wet Weight
Seq Number:	3026700				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.101	0.101	mg/kg	09.05.17 12.26	U	50
Toluene	108-88-3	**1.90**	0.101	mg/kg	09.05.17 12.26		50
Ethylbenzene	100-41-4	**3.23**	0.101	mg/kg	09.05.17 12.26		50
m,p-Xylenes	179601-23-1	**33.9**	0.202	mg/kg	09.05.17 12.26		50
o-Xylene	95-47-6	**7.05**	0.101	mg/kg	09.05.17 12.26		50
Total Xylenes	1330-20-7	**40.95**	0.101	mg/kg	09.05.17 12.26		50
Total BTEX		**46.08**	0.101	mg/kg	09.05.17 12.26		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	80	%	80-120	09.05.17 12.26	
4-Bromofluorobenzene	460-00-4	88	%	80-120	09.05.17 12.26	

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

QC Summary 561490

TRC Solutions, Inc

Jal #3 Field Scrubbers (North BGT)

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026481 Matrix: Solid Date Prep: 09.01.17
MB Sample Id: 730241-1-BLK LCS Sample Id: 730241-1-BKS LCSD Sample Id: 730241-1-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	254	102	90-110	3	20	mg/kg	09.01.17 12:51	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026481 Matrix: Soil Date Prep: 09.01.17
Parent Sample Id: 561490-005 MS Sample Id: 561490-005 S MSD Sample Id: 561490-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.5	250	254	93	254	93	90-110	0	20	mg/kg	09.01.17 15:06	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3026481 Matrix: Soil Date Prep: 09.01.17
Parent Sample Id: 561776-001 MS Sample Id: 561776-001 S MSD Sample Id: 561776-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	30.2	250	260	92	261	92	90-110	0	20	mg/kg	09.01.17 12:20	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3026606 Matrix: Solid Date Prep: 08.30.17
MB Sample Id: 730144-1-BLK LCS Sample Id: 730144-1-BKS LCSD Sample Id: 730144-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	878	88	915	92	70-135	4	35	mg/kg	08.30.17 12:59	
Diesel Range Organics (DRO)	<15.0	1000	1060	106	1070	107	70-135	1	35	mg/kg	08.30.17 12:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		116		121		70-135	%	08.30.17 12:59
o-Terphenyl	115		106		113		70-135	%	08.30.17 12:59

QC Summary 561490

TRC Solutions, Inc

Jal #3 Field Scrubbers (North BGT)

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3026608 Matrix: Solid Date Prep: 08.31.17
MB Sample Id: 730183-1-BLK LCS Sample Id: 730183-1-BKS LCSD Sample Id: 730183-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	839	84	895	90	70-135	6	35	mg/kg	09.05.17 09:41	
Diesel Range Organics (DRO)	<15.0	1000	1050	105	1040	104	70-135	1	35	mg/kg	09.05.17 09:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		103		103		70-135	%	09.05.17 09:41
o-Terphenyl	103		99		105		70-135	%	09.05.17 09:41

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3026606 Matrix: Soil Date Prep: 08.30.17
Parent Sample Id: 561433-001 MS Sample Id: 561433-001 S MSD Sample Id: 561433-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	876	88	877	88	70-135	0	35	mg/kg	09.05.17 09:35	
Diesel Range Organics (DRO)	<15.0	999	1050	105	1080	108	70-135	3	35	mg/kg	09.05.17 09:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		124		70-135	%	09.05.17 09:35
o-Terphenyl	104		104		70-135	%	09.05.17 09:35

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3026608 Matrix: Soil Date Prep: 08.31.17
Parent Sample Id: 561470-006 MS Sample Id: 561470-006 S MSD Sample Id: 561470-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	813	81	813	82	70-135	0	35	mg/kg	09.05.17 09:41	
Diesel Range Organics (DRO)	<15.0	999	1000	100	1010	101	70-135	1	35	mg/kg	09.05.17 09:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		98		70-135	%	09.05.17 09:41
o-Terphenyl	94		93		70-135	%	09.05.17 09:41

QC Summary 561490

TRC Solutions, Inc

Jal #3 Field Scrubbers (North BGT)

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3026474 Matrix: Solid Date Prep: 09.01.17
MB Sample Id: 730240-1-BLK LCS Sample Id: 730240-1-BKS LCSD Sample Id: 730240-1-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	0.101	101	0.106	106	70-130	5	35	mg/kg	09.01.17 11:55	
Toluene	<0.00200	0.100	0.100	100	0.105	105	70-130	5	35	mg/kg	09.01.17 11:55	
Ethylbenzene	<0.00200	0.100	0.102	102	0.106	106	71-129	4	35	mg/kg	09.01.17 11:55	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.207	104	70-135	4	35	mg/kg	09.01.17 11:55	
o-Xylene	<0.00200	0.100	0.0972	97	0.102	102	71-133	5	35	mg/kg	09.01.17 11:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		94		95		80-120	%	09.01.17 11:55
4-Bromofluorobenzene	93		101		103		80-120	%	09.01.17 11:55

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3026700 Matrix: Solid Date Prep: 09.05.17
MB Sample Id: 730377-1-BLK LCS Sample Id: 730377-1-BKS LCSD Sample Id: 730377-1-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	0.104	104	0.103	103	70-130	1	35	mg/kg	09.05.17 07:57	
Toluene	<0.00200	0.100	0.102	102	0.101	101	70-130	1	35	mg/kg	09.05.17 07:57	
Ethylbenzene	<0.00200	0.100	0.101	101	0.100	100	71-129	1	35	mg/kg	09.05.17 07:57	
m,p-Xylenes	<0.00401	0.200	0.198	99	0.196	98	70-135	1	35	mg/kg	09.05.17 07:57	
o-Xylene	<0.00200	0.100	0.0952	95	0.0945	95	71-133	1	35	mg/kg	09.05.17 07:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		97		96		80-120	%	09.05.17 07:57
4-Bromofluorobenzene	99		105		103		80-120	%	09.05.17 07:57

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3026474 Matrix: Soil Date Prep: 09.01.17
Parent Sample Id: 561776-001 MS Sample Id: 561776-001 S MSD Sample Id: 561776-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0909	91	0.0922	92	70-130	1	35	mg/kg	09.01.17 12:31	
Toluene	<0.00200	0.100	0.0857	86	0.0894	89	70-130	4	35	mg/kg	09.01.17 12:31	
Ethylbenzene	<0.00200	0.100	0.0842	84	0.0865	87	71-129	3	35	mg/kg	09.01.17 12:31	
m,p-Xylenes	<0.00400	0.200	0.164	82	0.167	84	70-135	2	35	mg/kg	09.01.17 12:31	
o-Xylene	<0.00200	0.100	0.0836	84	0.0831	83	71-133	1	35	mg/kg	09.01.17 12:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		97		80-120	%	09.01.17 12:31
4-Bromofluorobenzene	109		110		80-120	%	09.01.17 12:31

QC Summary 561490

TRC Solutions, Inc

Jal #3 Field Scrubbers (North BGT)

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3026700 Matrix: Soil Date Prep: 09.05.17

Parent Sample Id: 561383-008 MS Sample Id: 561383-008 S MSD Sample Id: 561383-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.103	103	0.104	104	70-130	1	35	mg/kg	09.05.17 16:23	
Toluene	<0.00200	0.0998	0.100	100	0.101	101	70-130	1	35	mg/kg	09.05.17 16:23	
Ethylbenzene	<0.00200	0.0998	0.0969	97	0.0982	98	71-129	1	35	mg/kg	09.05.17 16:23	
m,p-Xylenes	<0.00399	0.200	0.189	95	0.191	96	70-135	1	35	mg/kg	09.05.17 16:23	
o-Xylene	<0.00200	0.0998	0.0918	92	0.0932	93	71-133	2	35	mg/kg	09.05.17 16:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		106		80-120	%	09.05.17 16:23
4-Bromofluorobenzene	114		116		80-120	%	09.05.17 16:23

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

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Xenco Quote #

Xenco Job # 561490

Client / Reporting Information

Company Name / Branch: TRC Environmental
Company Address: 2057 Commerce Drive, Midland, TX 79703
Email: jlowry@trcsolutions.com
Phone No:
Project Contact: Joel Lowry
Samplers's Name Joel Lowry

Project Information

Project Name/Number: Jal #3 Field Scrubbers (North BGT)
Project Location: Lea Co, NM
Invoice To: ETC Field Services, CO Rose Slade
Invoice: Consult Rose Slade for AFE No.

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH 8015 M Ext	Chloride E 300	BTEX 8021B	Field Comments
1	S. BGT Floor @ 18'	18'	8/28/2017	13:20	S	1									X	X	X	
2	S. BGT NSW	13'	8/28/2017	13:30	S	1									X	X	X	
3	S. BGT ESW	13'	8/28/2017	13:40	S	1									X	X	X	
4	S. BGT SSW	13'	8/28/2017	13:50	S	1									X	X	X	
5	S. BGT WSW	13'	8/28/2017	14:00	S	1									X	X	X	
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☒ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level III Std QC+ Forms
- ☐ Level 3 (CLP Forms)
- ☐ TRRP Checklist
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ TRRP Level IV
- ☐ UST / RG -411

Notes:

Email Rose Slade and Joel Lowry

Temp: 1.9 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.7

FED-EX / UPS: Tr

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joel Lowry	8/29/17 16:55	1	2		2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice ☒ Cooler Temp. Thermo. Corr. Factor

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 08/29/2017 04:55:00 PM

Work Order #: 561490

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.7
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**No**
#21 VOC samples have zero headspace?	**N/A**

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

Analyst:

PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 08/30/2017

Shawnee Smith

Checklist reviewed by: Kelsey Brooks Date: 08/30/2017

Kelsey Brooks