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September 6, 2017

Mike Bratcher
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210

Amber Groves
Hobbs Field Office
New Mexico State Land Office
2827 N. Dal Paso St., Suite 117
Hobbs, New Mexico 88240

Re: Soil Investigation Summary and Proposed Remediation Workplan
Myox 21 State Com #009H (2RP-4045)
GPS: N 32.1099434° W 104.0997009°
Unit Letter "M", Section 21, Township 25 South, Range 28 East
Eddy County, New Mexico

Dear Mr. Bratcher and Ms. Groves,

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG) has prepared this Soil Investigation Summary and Proposed Remediation Workplan (Workplan) for the Myox 21 State Com #009H Release Site (Release Site). The purpose of this Workplan is to propose remediation activities designed to advance the Myox 21 State Com #009H Release Site toward a New Mexico Oil Conservation Division (NMOCD) approved Site Closure Status. The legal description of the Release Site is Unit Letter "M", Section 21, Township 25 South, Range 28 East, in Eddy County, New Mexico. The GPS coordinates for the site are N 32.1099434° W 104.0997009°. The subject property is administered by the New Mexico State Land Office (NMSLO). A Site Location Map and Site Map are provided as Figure 1 and Figure 2, respectively.

On December 18, 2016, COG discovered a crude oil and produced water release from the gasket on a Free Water Knockout (FWKO) located within the lined secondary containment. The release was partially contained within the lined secondary containment and impacted the pasture south of the facility which measured approximately 5,165 square feet in area, with an additional area of overspray which measured approximately 9,413 square feet. On December 20, 2016, a COG representative submitted a Release Notification and Corrective Action (Form C-141) to the NMOCD. During initial response activities, COG replaced the failed gasket on the FWKO and dispatched a vacuum truck to remove all freestanding fluids.

Approximately eleven (11) barrels of fluid was released from the FWKO, with approximately seven (7) barrels of fluid recovered. The Form C-141 is attached to this report.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 21, Township 25 South, Range 28 East. A reference map utilized by the NMOCD Artesia District Office indicates groundwater should be encountered at approximately thirty (30) feet below ground surface (bgs). Based on the NMOCD site classification system, twenty (20) points will be assigned to the subject area ranking as a result of this criterion.

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

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

Based on the NMOCD Site Classification criteria, the Release Site soil remediation levels are 10 mg/Kg for benzene, 50 mg/Kg for benzene, toluene, ethylbenzene and xylenes (BTEX), and one hundred (100) mg/Kg for total petroleum hydrocarbons (TPH). Per NMOCD request, chloride remediation levels for the Release Site will be 250 mg/Kg.

On June 29, 2017, a TRC Representative collected nine (9) delineation soil samples (Trench-1 1', Trench-1 3', Trench-1 5', Trench-1 7', Trench-1 11', Trench-2 1', Trench-2 3', Trench-2 5', and Trench-2 11') from the impacted area utilizing a backhoe. The soil samples were submitted to Xenco Laboratories in Midland, Texas for determination of concentrations of BTEX using Method SW 846-8021B, TPH using Method SW 846-8015M, and/or chloride using Method E 300.1. The analytical results indicated benzene and BTEX concentrations were less than the applicable laboratory Method Detection Limit (MDL) and NMOCD regulatory guidelines for the submitted soil samples. The laboratory results indicated TPH concentrations ranged from less than the applicable laboratory MDL for the submitted soil samples, with the exception of soil samples Trench-1 1' (53.2 mg/Kg), Trench-1 11' (37.0 mg/Kg), Trench-2 1' (15.6 mg/Kg), and Trench-2 11' (21.7 mg/Kg). A review of laboratory analytical results indicated TPH concentrations were below NMOCD regulatory guidelines for the submitted soil samples. Laboratory analytical results indicated chloride concentrations ranged from 22.7 mg/Kg for soil sample Trench-2 1' to 185 mg/Kg for soil sample Trench-1 11', which indicated chloride concentrations were below NMOCD regulatory guidelines for the submitted soil samples. The laboratory analytical results are attached to this report.

In addition, TRC collected four (4) soil samples (East Trench-1 1', West Trench-1 1', North Trench-1 1', and South Trench-1 1') to the east, west, north, and south of the visibly stained area to a depth of approximately one (1) foot bgs to determine the horizontal extent of the impacted area. The soil samples were submitted to Xenco Laboratories for BTEX, TPH, and chloride analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations for the submitted soil samples were below the applicable laboratory MDL, with the exception of soil sample West Trench-1 1', which exhibited a TPH concentration of 17.3 mg/Kg. Laboratory analytical results indicated chloride concentrations ranged from less than the applicable laboratory MDL for soil sample North Trench-1 1' to 14.3 mg/Kg for soil

sample West Trench-1 1'. A review of laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were below NMOCD regulatory guidelines for the submitted soil samples.

In addition, four (4) soil samples (OS-1 1' and OS-2 6" through OS-4 6") were collected from the overspray area located in the pasture adjacent to the caliche pad and submitted to the laboratory for BTEX, TPH, and chloride analysis. Laboratory analytical results indicated benzene and BTEX concentrations were less than the applicable laboratory MDL and below NMOCD regulatory guidelines. Laboratory analytical results indicated TPH concentrations ranged from 31.2 mg/kg for soil sample OS-3 6" to 166.2 mg/Kg for soil sample OS-2 6". A review of laboratory analytical results indicated TPH concentrations were above NMOCD regulatory guidelines for soil samples OS-1 1', OS-2 6", and OS-4 6". Laboratory analytical results indicated chloride concentrations ranged from 87.6 mg/Kg for soil sample OS-3 6" to 227 mg/Kg for soil sample OS-4 6" which indicated chloride concentrations were below NMOCD regulatory guidelines.

Based on the analytical results of the soil samples collected on June 29, 2017, COG proposes the following field activities designed to remediate the Myox 21 State Com #009H Release:

- Utilizing a backhoe, excavate the areas represented by soil samples Trench-1 and Trench-2 to a maximum depth of approximately one (1) foot bgs to address visibly stained areas. Excavated soil will be temporarily stockpiled on a plastic liner adjacent to the excavation.
- The area represented by soil sample OS-1 1' will be excavated to approximately one (1) foot bgs and the areas represented by soil samples OS-2 6" and OS-4 6" will be excavated to approximately six (6) inches bgs.
- Collect one (1) composite soil sample for each one hundred (100) cubic yards of excavated soil and submit for BTEX, TPH, and chloride analysis.
- On receipt of favorable analytical results (below NMOCD regulatory guidelines referenced above), the excavation will be backfilled with the remediated soil.
- If laboratory analytical results indicate TPH, BTEX, or chloride concentrations of the excavated soil exceed NMOCD regulatory guidelines, the excavated soil will be transported under manifest to a NMOCD approved disposal facility and the excavated area will be backfilled with locally purchased non-impacted "like" soil.
- Prepare and submit a "Remediation Summary and Site Closure Request" to the NMOCD and NMSLO.

COG is prepared to begin the activities outlined in this Proposed Remediation Workplan on NMOCD and NMSLO approval.

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

Thank you,



Nikki Green
Project Manager
TRC Environmental Corporation



Jeffrey Kindley, PG
Senior Project Manager
TRC Environmental Corporation

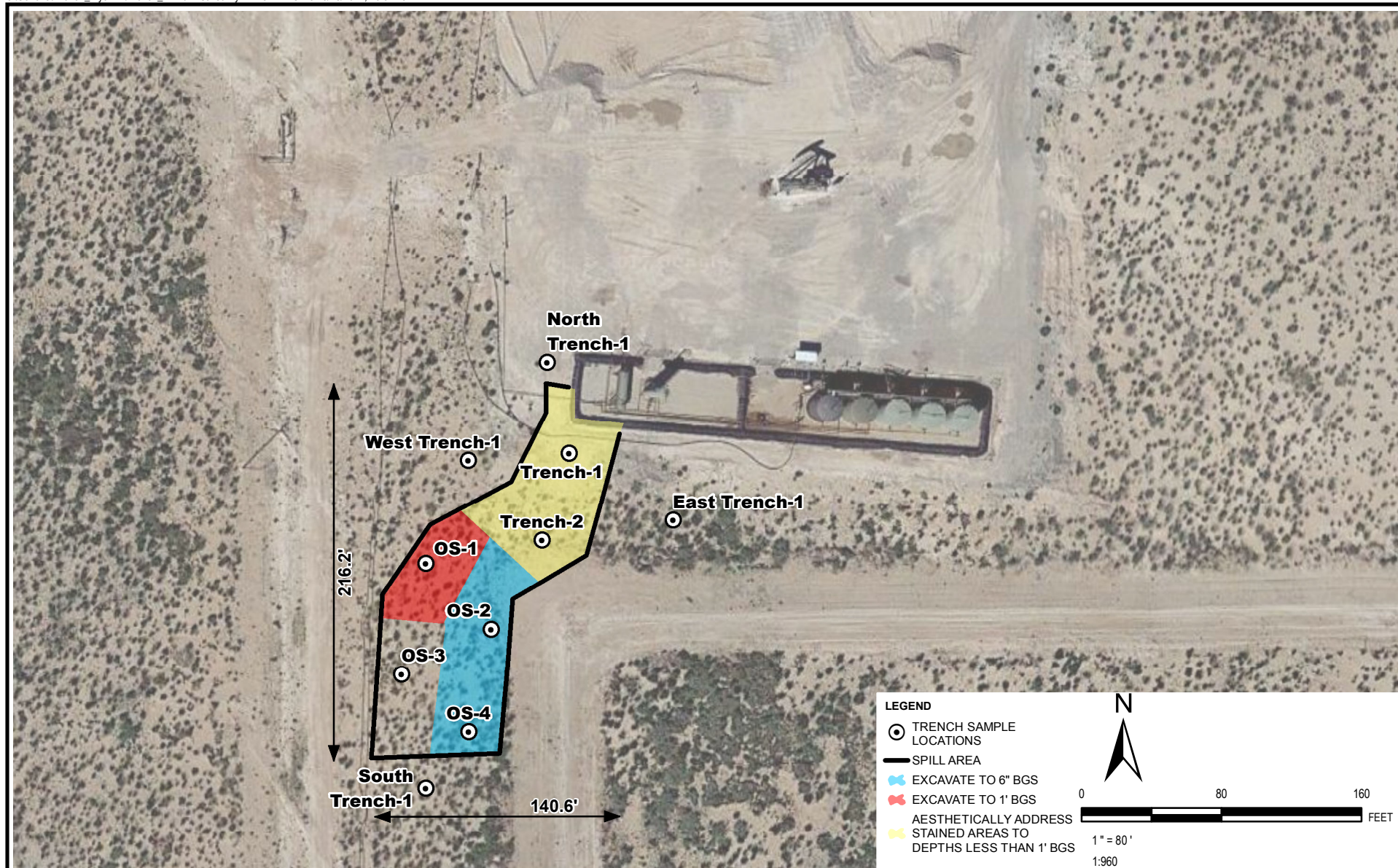
Attachments:

Figure 1 - Site Location Map
Figure 2 - Site Map
Table 1 - Concentrations of Benzene, BTEX, TPH and Chloride in Soil
Laboratory Analytical Results
Release Notification and Corrective Action (Form C-141)

cc: Rebecca Haskell
COG Operating, LLC
600 W. Illinois Avenue
Midland, Texas 79701

File





2075 Commerce Drive
Midland, TX 79703
Phone: 432.520.770

TRC - GIS

TITLE:

FIGURE 2 SITE MAP

PROJECT:

MYOX 21 STATE COM #009H
EDDY COUNTY, NEW MEXICO
COG OPERATING, LLC.

DRAWN BY: MLOVELACE

CHECKED BY: NGREEN

APPROVED BY: NGREEN

DATE: AUGUST 2017

PROJ. NO.: 279782

GPS: LAT. N 32.1099434, LONG. W 104.0997009

SW1/4 SW1/4 SEC 21 T25S R28E

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

COG Operating LLC
MYOX 21 STATE COM #009H
EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	SOIL STATUS	METHODS: SW 846-8021b						METHOD: SW 8015M				EPA 300
			BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL BTEX	TPH GRO C ₆ -C ₁₀	TPH DRO C ₁₀ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	CHLORIDE
NMOCD Site Classification Criteria			10					50				100	250
Trench-1 1'	06/29/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<14.9	53.2	<14.9	53.2	36.0
Trench-1 3'	06/29/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<14.9	<14.9	<14.9	<14.9	-
Trench-1 5'	06/29/17	Trench	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<15.0	<15.0	<15.0	<15.0	-
Trench-1 7'	06/29/17	Trench	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<15.0	<15.0	<15.0	<15.0	-
Trench-1 11'	06/29/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	37.0	<15.0	37.0	185
Trench-2 1'	06/29/17	Trench	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00403	<15.0	15.6	<15.0	15.6	22.7
Trench-2 3'	06/29/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	-
Trench-2 5'	06/29/17	Trench	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<15.0	<15.0	<15.0	<15.0	-
Trench-2 11'	06/29/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	21.7	<15.0	21.7	104
OS-1 1'	06/29/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	124	19.2	143.2	112
OS-2 6"	06/29/17	Trench	<0.00198	<0.00198	<0.00198	<0.00396	<0.00198	<0.00396	<15.0	148	18.2	166.2	134
OS-3 6"	06/29/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	31.2	<15.0	31.2	87.6
OS-4 6"	06/29/17	Trench	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<14.9	101	<14.9	101	227
East Trench-1 1'	06/29/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	7.33
West Trench-1 1'	06/29/17	Trench	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<15.0	17.3	<15.0	17.3	14.3
North Trench-1 1'	06/29/17	Trench	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00397	<15.0	<15.0	<15.0	<15.0	<24.6
South Trench-1 1'	06/29/17	Trench	<0.00198	<0.00198	<0.00198	<0.00396	<0.00198	<0.00396	<15.0	<15.0	<15.0	<15.0	9.58



Certificate of Analysis Summary 556813

TRC Solutions, Inc, Midland, TX

Project Name: Myox 21 State Com #009H (12/18/16)



Project Id:

Contact: Nikki Green

Project Location: Lea Co NM

Date Received in Lab: Mon Jul-03-17 11:55 am

Report Date: 11-JUL-17

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	556813-001	556813-002	556813-003	556813-004	556813-005	556813-006
	Field Id:	Trench-1 1'	Trench-1 3'	Trench-1 5'	Trench-1 7'	Trench-1 11'	Trench-2 1'
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jun-29-17 09:00	Jun-29-17 09:10	Jun-29-17 09:20	Jun-29-17 09:30	Jun-29-17 09:40	Jun-29-17 10:10
BTEX by EPA 8021B	Extracted:	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30
	Analyzed:	Jul-07-17 19:38	Jul-07-17 19:53	Jul-07-17 20:10	Jul-07-17 20:26	Jul-07-17 20:42	Jul-07-17 20:58
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Toluene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00401 0.00401	<0.00398 0.00398	<0.00403 0.00403
o-Xylene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Total BTEX		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Chloride by EPA 300	Extracted:	Jul-10-17 16:40				Jul-10-17 16:40	Jul-10-17 16:40
	Analyzed:	Jul-10-17 23:25				Jul-11-17 00:03	Jul-11-17 00:11
	Units/RL:	mg/kg RL				mg/kg RL	mg/kg RL
Chloride		36.0 4.96				185 4.91	22.7 4.96
TPH by SW8015 Mod	Extracted:	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00
	Analyzed:	Jul-05-17 12:10	Jul-05-17 12:29	Jul-05-17 12:49	Jul-05-17 13:10	Jul-05-17 13:30	Jul-05-17 13:50
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<14.9 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		53.2 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0	37.0 15.0	15.6 15.0
Oil Range Hydrocarbons (ORO)		<14.9 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		53.2 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0	37.0 15.0	15.6 15.0

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

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

Mike Kimmel
Client Services Manager



Certificate of Analysis Summary 556813

TRC Solutions, Inc, Midland, TX

Project Name: Myox 21 State Com #009H (12/18/16)



Project Id:

Contact: Nikki Green

Project Location: Lea Co NM

Date Received in Lab: Mon Jul-03-17 11:55 am

Report Date: 11-JUL-17

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	556813-007	556813-008	556813-009	556813-010	556813-011	556813-012
	<i>Field Id:</i>	Trench-2 3'	Trench-2 5'	Trench-2 11'	OS-1 1'	OS-2 6"	OS-3 6'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jun-29-17 10:20	Jun-29-17 10:30	Jun-29-17 11:00	Jun-29-17 08:05	Jun-29-17 08:10	Jun-29-17 08:15
BTEX by EPA 8021B	<i>Extracted:</i>	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30
	<i>Analyzed:</i>	Jul-07-17 21:14	Jul-07-17 21:31	Jul-07-17 21:47	Jul-07-17 22:03	Jul-07-17 23:07	Jul-07-17 23:23
	<i>Units/RL:</i>	mg/kg 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	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
m,p-Xylenes		<0.00398 0.00398	<0.00401 0.00401	<0.00402 0.00402	<0.00398 0.00398	<0.00396 0.00396	<0.00402 0.00402
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>			Jul-10-17 16:40	Jul-10-17 16:40	Jul-10-17 16:40	Jul-10-17 16:40
	<i>Analyzed:</i>			Jul-11-17 00:34	Jul-11-17 00:41	Jul-11-17 00:49	Jul-11-17 00:57
	<i>Units/RL:</i>			mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride				104 24.7	112 4.98	134 4.97	87.6 4.99
TPH by SW8015 Mod	<i>Extracted:</i>	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00
	<i>Analyzed:</i>	Jul-05-17 14:10	Jul-05-17 14:30	Jul-05-17 15:31	Jul-05-17 15:51	Jul-05-17 16:11	Jul-05-17 16:32
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	21.7 15.0	124 15.0	148 15.0	31.2 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	19.2 15.0	18.2 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	21.7 15.0	143 15.0	166 15.0	31.2 15.0

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

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

Mike Kimmel
Client Services Manager



Certificate of Analysis Summary 556813

TRC Solutions, Inc, Midland, TX

Project Name: Myox 21 State Com #009H (12/18/16)



Project Id:

Contact: Nikki Green

Project Location: Lea Co NM

Date Received in Lab: Mon Jul-03-17 11:55 am

Report Date: 11-JUL-17

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	556813-013	556813-014	556813-015	556813-016	556813-017	
	Field Id:	OS-4 6"	East Trench-1 1'	West Trench-1 1'	North Trench-1 1'	South Trench-1 1'	
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	Jun-29-17 08:20	Jun-29-17 13:20	Jun-29-17 13:45	Jun-29-17 14:32	Jun-29-17 15:02	
BTEX by EPA 8021B	Extracted:	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30	Jul-07-17 13:30	
	Analyzed:	Jul-07-17 22:51	Jul-07-17 23:39	Jul-07-17 23:55	Jul-08-17 00:11	Jul-08-17 00:27	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00401 0.00401	<0.00397 0.00397	<0.00396 0.00396	
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	
Chloride by EPA 300	Extracted:	Jul-10-17 16:40	Jul-10-17 16:40	Jul-10-17 16:40	Jul-10-17 16:40	Jul-10-17 16:40	
	Analyzed:	Jul-11-17 01:04	Jul-11-17 01:12	Jul-11-17 01:35	Jul-11-17 01:43	Jul-11-17 02:06	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		227 4.98	7.33 5.00	14.3 4.96	<24.6 24.6	9.58 4.98	
TPH by SW8015 Mod	Extracted:	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00	Jul-05-17 08:00	
	Analyzed:	Jul-05-17 16:52	Jul-05-17 17:13	Jul-05-17 17:33	Jul-05-17 17:53	Jul-05-17 18:14	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	
Diesel Range Organics (DRO)		101 14.9	<15.0 15.0	17.3 15.0	<15.0 15.0	<15.0 15.0	
Oil Range Hydrocarbons (ORO)		<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	
Total TPH		101 14.9	<15.0 15.0	17.3 15.0	<15.0 15.0	<15.0 15.0	

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

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

Mike Kimmel
Client Services Manager

Analytical Report 556813

**for
TRC Solutions, Inc**

**Project Manager: Nikki Green
Myox 21 State Com #009H (12/18/16)**

11-JUL-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

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

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



11-JUL-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **556813**

Myox 21 State Com #009H (12/18/16)

Project Address: Lea Co NM

Nikki Green:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 556813. 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. 556813 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,

Mike Kimmel

Client Services Manager

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

Certified and approved by numerous States and Agencies.

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

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

TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Trench-1 1'	S	06-29-17 09:00		556813-001
Trench-1 3'	S	06-29-17 09:10		556813-002
Trench-1 5'	S	06-29-17 09:20		556813-003
Trench-1 7'	S	06-29-17 09:30		556813-004
Trench-1 11'	S	06-29-17 09:40		556813-005
Trench-2 1'	S	06-29-17 10:10		556813-006
Trench-2 3'	S	06-29-17 10:20		556813-007
Trench-2 5'	S	06-29-17 10:30		556813-008
Trench-2 11'	S	06-29-17 11:00		556813-009
OS-1 1'	S	06-29-17 08:05		556813-010
OS-2 6"	S	06-29-17 08:10		556813-011
OS-3 6'	S	06-29-17 08:15		556813-012
OS-4 6"	S	06-29-17 08:20		556813-013
East Trench-1 1'	S	06-29-17 13:20		556813-014
West Trench-1 1'	S	06-29-17 13:45		556813-015
North Trench-1 1'	S	06-29-17 14:32		556813-016
South Trench-1 1'	S	06-29-17 15:02		556813-017



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Myox 21 State Com #009H (12/18/16)

Project ID:

Work Order Number(s): 556813

Report Date: 11-JUL-17

Date Received: 07/03/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3021832 BTEX by EPA 8021B

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

Batch: LBA-3021937 Inorganic Anions by EPA 300

Lab Sample ID 556813-014 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 556813-001, -005, -006, -009, -010, -011, -012, -013, -014, -015, -016, -017.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-001

Date Collected: 06.29.17 09.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.10.17 16.40

Basis: Wet Weight

Seq Number: 3021937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	36.0	4.96	mg/kg	07.10.17 23.25		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.05.17 12.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	53.2	14.9	mg/kg	07.05.17 12.10		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.05.17 12.10	U	1
Total TPH	PHC635	53.2	14.9	mg/kg	07.05.17 12.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	07.05.17 12.10	
o-Terphenyl	84-15-1	125	%	70-135	07.05.17 12.10	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-001

Date Collected: 06.29.17 09.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.07.17 19.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.07.17 19.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.07.17 19.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.07.17 19.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.07.17 19.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.07.17 19.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.07.17 19.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	80-120	07.07.17 19.38		
1,4-Difluorobenzene	540-36-3	100	%	80-120	07.07.17 19.38		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-1 3'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-002

Date Collected: 06.29.17 09.10

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.05.17 12.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.05.17 12.29	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.05.17 12.29	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.05.17 12.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	07.05.17 12.29	
o-Terphenyl	84-15-1	105	%	70-135	07.05.17 12.29	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.07.17 19.53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.07.17 19.53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.07.17 19.53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.07.17 19.53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.07.17 19.53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.07.17 19.53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.07.17 19.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	80-120	07.07.17 19.53	
4-Bromofluorobenzene	460-00-4	93	%	80-120	07.07.17 19.53	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-1 5'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-003

Date Collected: 06.29.17 09.20

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 12.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.17 12.49	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 12.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.17 12.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	07.05.17 12.49	
o-Terphenyl	84-15-1	102	%	70-135	07.05.17 12.49	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.17 20.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.17 20.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.17 20.10	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.07.17 20.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.17 20.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.17 20.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.17 20.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	80-120	07.07.17 20.10	
1,4-Difluorobenzene	540-36-3	85	%	80-120	07.07.17 20.10	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-1 7'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-004

Date Collected: 06.29.17 09.30

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 13.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.17 13.10	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 13.10	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.17 13.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	07.05.17 13.10	
o-Terphenyl	84-15-1	103	%	70-135	07.05.17 13.10	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.17 20.26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.17 20.26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.17 20.26	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.07.17 20.26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.17 20.26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.17 20.26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.17 20.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	80-120	07.07.17 20.26	
1,4-Difluorobenzene	540-36-3	95	%	80-120	07.07.17 20.26	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-1 11'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-005

Date Collected: 06.29.17 09.40

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.10.17 16.40

Basis: Wet Weight

Seq Number: 3021937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	185	4.91	mg/kg	07.11.17 00.03		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 13.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	37.0	15.0	mg/kg	07.05.17 13.30		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 13.30	U	1
Total TPH	PHC635	37.0	15.0	mg/kg	07.05.17 13.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	07.05.17 13.30	
o-Terphenyl	84-15-1	99	%	70-135	07.05.17 13.30	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-1 11'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-005

Date Collected: 06.29.17 09.40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.07.17 20.42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.07.17 20.42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.07.17 20.42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.07.17 20.42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.07.17 20.42	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.07.17 20.42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.07.17 20.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	80-120	07.07.17 20.42		
1,4-Difluorobenzene	540-36-3	101	%	80-120	07.07.17 20.42		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-2 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-006

Date Collected: 06.29.17 10.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.10.17 16.40

Basis: Wet Weight

Seq Number: 3021937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.7	4.96	mg/kg	07.11.17 00.11		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 13.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	15.6	15.0	mg/kg	07.05.17 13.50		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 13.50	U	1
Total TPH	PHC635	15.6	15.0	mg/kg	07.05.17 13.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	07.05.17 13.50	
o-Terphenyl	84-15-1	104	%	70-135	07.05.17 13.50	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-2 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-006

Date Collected: 06.29.17 10.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.07.17 20.58	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.07.17 20.58	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.07.17 20.58	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.07.17 20.58	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.07.17 20.58	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.07.17 20.58	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.07.17 20.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	86	%	80-120	07.07.17 20.58		
1,4-Difluorobenzene	540-36-3	85	%	80-120	07.07.17 20.58		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-2 3'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-007

Date Collected: 06.29.17 10.20

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 14.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.17 14.10	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 14.10	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.17 14.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	105	%	70-135	07.05.17 14.10		
o-Terphenyl	84-15-1	107	%	70-135	07.05.17 14.10		

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.07.17 21.14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.07.17 21.14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.07.17 21.14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.07.17 21.14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.07.17 21.14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.07.17 21.14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.07.17 21.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	80-120	07.07.17 21.14		
1,4-Difluorobenzene	540-36-3	106	%	80-120	07.07.17 21.14		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-2 5'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-008

Date Collected: 06.29.17 10.30

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 14.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.17 14.30	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 14.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.17 14.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	07.05.17 14.30	
o-Terphenyl	84-15-1	105	%	70-135	07.05.17 14.30	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.17 21.31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.17 21.31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.17 21.31	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.07.17 21.31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.17 21.31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.17 21.31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.17 21.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	80-120	07.07.17 21.31	
4-Bromofluorobenzene	460-00-4	87	%	80-120	07.07.17 21.31	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-2 11'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-009

Date Collected: 06.29.17 11.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.10.17 16.40

Basis: Wet Weight

Seq Number: 3021937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	104	24.7	mg/kg	07.11.17 00.34		5

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 15.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	21.7	15.0	mg/kg	07.05.17 15.31		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 15.31	U	1
Total TPH	PHC635	21.7	15.0	mg/kg	07.05.17 15.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	07.05.17 15.31	
o-Terphenyl	84-15-1	100	%	70-135	07.05.17 15.31	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **Trench-2 11'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-009

Date Collected: 06.29.17 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.07.17 21.47	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.07.17 21.47	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.07.17 21.47	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.07.17 21.47	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.07.17 21.47	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.07.17 21.47	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.07.17 21.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	83	%	80-120	07.07.17 21.47		
1,4-Difluorobenzene	540-36-3	95	%	80-120	07.07.17 21.47		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: OS-1 1'
Lab Sample Id: 556813-010

Matrix: Soil
Date Collected: 06.29.17 08.05

Date Received: 07.03.17 11.55

Analytical Method: Chloride by EPA 300

Tech: MGO

Analyst: MGO

Seq Number: 3021937

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 07.10.17 16.40

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	112	4.98	mg/kg	07.11.17 00.41		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3021778

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 07.05.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 15.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	124	15.0	mg/kg	07.05.17 15.51		1
Oil Range Hydrocarbons (ORO)	PHCG2835	19.2	15.0	mg/kg	07.05.17 15.51		1
Total TPH	PHC635	143	15.0	mg/kg	07.05.17 15.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	07.05.17 15.51	
o-Terphenyl	84-15-1	113	%	70-135	07.05.17 15.51	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: OS-1 1'
Lab Sample Id: 556813-010

Matrix: Soil
Date Collected: 06.29.17 08.05

Date Received: 07.03.17 11.55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.07.17 22.03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.07.17 22.03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.07.17 22.03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.07.17 22.03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.07.17 22.03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.07.17 22.03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.07.17 22.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	84	%	80-120	07.07.17 22.03		
4-Bromofluorobenzene	460-00-4	86	%	80-120	07.07.17 22.03		



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TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: OS-2 6"
Lab Sample Id: 556813-011

Matrix: Soil
Date Collected: 06.29.17 08.10

Date Received: 07.03.17 11.55

Analytical Method: Chloride by EPA 300
Tech: MGO
Analyst: MGO
Seq Number: 3021937

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 07.10.17 16.40

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	134	4.97	mg/kg	07.11.17 00.49		1

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3021778

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 07.05.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 16.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	148	15.0	mg/kg	07.05.17 16.11		1
Oil Range Hydrocarbons (ORO)	PHCG2835	18.2	15.0	mg/kg	07.05.17 16.11		1
Total TPH	PHC635	166	15.0	mg/kg	07.05.17 16.11		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	100	%	70-135	07.05.17 16.11		
o-Terphenyl	84-15-1	99	%	70-135	07.05.17 16.11		



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TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: OS-2 6"
Lab Sample Id: 556813-011

Matrix: Soil
Date Collected: 06.29.17 08.10

Date Received: 07.03.17 11.55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.07.17 23.07	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.07.17 23.07	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.07.17 23.07	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	07.07.17 23.07	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.07.17 23.07	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.07.17 23.07	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.07.17 23.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	86	%	80-120	07.07.17 23.07		
4-Bromofluorobenzene	460-00-4	97	%	80-120	07.07.17 23.07		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **OS-3 6'**
Lab Sample Id: 556813-012

Matrix: Soil
Date Collected: 06.29.17 08.15

Date Received: 07.03.17 11.55

Analytical Method: Chloride by EPA 300

Tech: MGO

Analyst: MGO

Seq Number: 3021937

Prep Method: E300P

% Moisture:

Date Prep: 07.10.17 16.40

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	87.6	4.99	mg/kg	07.11.17 00.57		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3021778

Prep Method: TX1005P

% Moisture:

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 16.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	31.2	15.0	mg/kg	07.05.17 16.32		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 16.32	U	1
Total TPH	PHC635	31.2	15.0	mg/kg	07.05.17 16.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	07.05.17 16.32	
o-Terphenyl	84-15-1	102	%	70-135	07.05.17 16.32	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: OS-3 6'
Lab Sample Id: 556813-012

Matrix: Soil
Date Collected: 06.29.17 08.15

Date Received: 07.03.17 11.55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.07.17 23.23	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.07.17 23.23	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.07.17 23.23	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.07.17 23.23	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.07.17 23.23	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.07.17 23.23	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.07.17 23.23	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91		%	80-120	07.07.17 23.23	
1,4-Difluorobenzene	540-36-3	89		%	80-120	07.07.17 23.23	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **OS-4 6"**
Lab Sample Id: 556813-013

Matrix: Soil
Date Collected: 06.29.17 08.20

Date Received: 07.03.17 11.55

Analytical Method: Chloride by EPA 300

Tech: MGO

Analyst: MGO

Seq Number: 3021937

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 07.10.17 16.40

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	227	4.98	mg/kg	07.11.17 01.04		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3021778

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 07.05.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.05.17 16.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	101	14.9	mg/kg	07.05.17 16.52		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.05.17 16.52	U	1
Total TPH	PHC635	101	14.9	mg/kg	07.05.17 16.52		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	99	%	70-135	07.05.17 16.52		
o-Terphenyl	84-15-1	98	%	70-135	07.05.17 16.52		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **OS-4 6"**
Lab Sample Id: 556813-013

Matrix: Soil
Date Collected: 06.29.17 08.20

Date Received: 07.03.17 11.55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.17 22.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.17 22.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.17 22.51	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.07.17 22.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.17 22.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.17 22.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.17 22.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	80-120	07.07.17 22.51		
1,4-Difluorobenzene	540-36-3	93	%	80-120	07.07.17 22.51		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **East Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-014

Date Collected: 06.29.17 13.20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.10.17 16.40

Basis: Wet Weight

Seq Number: 3021937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.33	5.00	mg/kg	07.11.17 01.12		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 17.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.17 17.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 17.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.17 17.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	07.05.17 17.13	
o-Terphenyl	84-15-1	112	%	70-135	07.05.17 17.13	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **East Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-014

Date Collected: 06.29.17 13.20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.07.17 23.39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.07.17 23.39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.07.17 23.39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.07.17 23.39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.07.17 23.39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.07.17 23.39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.07.17 23.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	80-120	07.07.17 23.39		
4-Bromofluorobenzene	460-00-4	101	%	80-120	07.07.17 23.39		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **West Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-015

Date Collected: 06.29.17 13.45

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.10.17 16.40

Basis: Wet Weight

Seq Number: 3021937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.3	4.96	mg/kg	07.11.17 01.35		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 17.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	17.3	15.0	mg/kg	07.05.17 17.33		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 17.33	U	1
Total TPH	PHC635	17.3	15.0	mg/kg	07.05.17 17.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	07.05.17 17.33	
o-Terphenyl	84-15-1	118	%	70-135	07.05.17 17.33	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **West Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-015

Date Collected: 06.29.17 13.45

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.17 23.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.17 23.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.17 23.55	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.07.17 23.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.17 23.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.17 23.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.17 23.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	80-120	07.07.17 23.55		
4-Bromofluorobenzene	460-00-4	90	%	80-120	07.07.17 23.55		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **North Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-016

Date Collected: 06.29.17 14.32

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.10.17 16.40

Basis: Wet Weight

Seq Number: 3021937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<24.6	24.6	mg/kg	07.11.17 01.43	U	5

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 17.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.17 17.53	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 17.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.17 17.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	07.05.17 17.53	
o-Terphenyl	84-15-1	103	%	70-135	07.05.17 17.53	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **North Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-016

Date Collected: 06.29.17 14.32

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.08.17 00.11	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.08.17 00.11	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.08.17 00.11	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.08.17 00.11	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.08.17 00.11	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.08.17 00.11	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.08.17 00.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	80-120	07.08.17 00.11		
4-Bromofluorobenzene	460-00-4	105	%	80-120	07.08.17 00.11		



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **South Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-017

Date Collected: 06.29.17 15.02

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.10.17 16.40

Basis: Wet Weight

Seq Number: 3021937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.58	4.98	mg/kg	07.11.17 02.06		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.05.17 08.00

Basis: Wet Weight

Seq Number: 3021778

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 18.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.17 18.14	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 18.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.17 18.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	07.05.17 18.14	
o-Terphenyl	84-15-1	106	%	70-135	07.05.17 18.14	



Certificate of Analytical Results 556813



TRC Solutions, Inc, Midland, TX

Myox 21 State Com #009H (12/18/16)

Sample Id: **South Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556813-017

Date Collected: 06.29.17 15.02

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.07.17 13.30

Basis: Wet Weight

Seq Number: 3021832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.08.17 00.27	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.08.17 00.27	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.08.17 00.27	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	07.08.17 00.27	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.08.17 00.27	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.08.17 00.27	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.08.17 00.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	80-120	07.08.17 00.27		
1,4-Difluorobenzene	540-36-3	107	%	80-120	07.08.17 00.27		

- 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 **SQL** 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

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

Certified and approved by numerous States and Agencies.

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

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 5332 Blackberry Drive, San Antonio TX 78238
 1211 W Florida Ave, Midland, TX 79701
 2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



QC Summary 556813

TRC Solutions, Inc Myox 21 State Com #009H (12/18/16)

Analytical Method: Chloride by EPA 300

Seq Number: 3021937

MB Sample Id: 727456-1-BLK

Matrix: Solid

LCS Sample Id: 727456-1-BKS

Prep Method: E300P

Date Prep: 07.10.17

LCSD Sample Id: 727456-1-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	264	106	264	106	90-110	0	20	mg/kg	07.10.17 23:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3021937

Parent Sample Id: 556813-001

Matrix: Soil

MS Sample Id: 556813-001 S

Prep Method: E300P

Date Prep: 07.10.17

MSD Sample Id: 556813-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	36.0	248	306	109	306	109	90-110	0	20	mg/kg	07.10.17 23:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3021937

Parent Sample Id: 556813-014

Matrix: Soil

MS Sample Id: 556813-014 S

Prep Method: E300P

Date Prep: 07.10.17

MSD Sample Id: 556813-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.33	250	277	108	284	111	90-110	2	20	mg/kg	07.11.17 01:20	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3021778

MB Sample Id: 727238-1-BLK

Matrix: Solid

LCS Sample Id: 727238-1-BKS

Prep Method: TX1005P

Date Prep: 07.05.17

LCSD Sample Id: 727238-1-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	988	99	999	100	70-135	1	35	mg/kg	07.05.17 10:08	
Diesel Range Organics (DRO)	<15.0	1000	952	95	953	95	70-135	0	35	mg/kg	07.05.17 10:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		110		108		70-135	%	07.05.17 10:08
o-Terphenyl	117		111		100		70-135	%	07.05.17 10:08



QC Summary 556813

TRC Solutions, Inc

Myox 21 State Com #009H (12/18/16)

Analytical Method: TPH by SW8015 Mod

Seq Number: 3021778

Parent Sample Id: 556812-002

Matrix: Soil

MS Sample Id: 556812-002 S

Prep Method: TX1005P

Date Prep: 07.05.17

MSD Sample Id: 556812-002 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	1000	1060	106	1090	109	70-135	3	35	mg/kg	07.05.17 11:29	
Diesel Range Organics (DRO)	<15.0	1000	1090	109	1100	110	70-135	1	35	mg/kg	07.05.17 11:29	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		123		70-135	%	07.05.17 11:29
o-Terphenyl	122		116		70-135	%	07.05.17 11:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3021832

MB Sample Id: 727357-1-BLK

Matrix: Solid

LCS Sample Id: 727357-1-BKS

Prep Method: SW5030B

Date Prep: 07.07.17

LCSD Sample Id: 727357-1-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	0.119	120	70-130	3	35	mg/kg	07.07.17 18:00	
Toluene	<0.00200	0.0998	0.112	112	0.105	106	70-130	6	35	mg/kg	07.07.17 18:00	
Ethylbenzene	<0.00200	0.0998	0.113	113	0.119	120	71-129	5	35	mg/kg	07.07.17 18:00	
m,p-Xylenes	<0.00399	0.200	0.202	101	0.207	104	70-135	2	35	mg/kg	07.07.17 18:00	
o-Xylene	<0.00200	0.0998	0.114	114	0.114	115	71-133	0	35	mg/kg	07.07.17 18:00	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	84		91		104		80-120	%	07.07.17 18:00
4-Bromofluorobenzene	104		99		97		80-120	%	07.07.17 18:00

Analytical Method: BTEX by EPA 8021B

Seq Number: 3021832

Parent Sample Id: 556813-013

Matrix: Soil

MS Sample Id: 556813-013 S

Prep Method: SW5030B

Date Prep: 07.07.17

MSD Sample Id: 556813-013 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	0.0978	98	0.0977	98	70-130	0	35	mg/kg	07.07.17 18:33	
Toluene	<0.00200	0.100	0.0855	86	0.0841	84	70-130	2	35	mg/kg	07.07.17 18:33	
Ethylbenzene	<0.00200	0.100	0.0843	84	0.0746	75	71-129	12	35	mg/kg	07.07.17 18:33	
m,p-Xylenes	<0.00401	0.200	0.146	73	0.140	70	70-135	4	35	mg/kg	07.07.17 18:33	
o-Xylene	<0.00200	0.100	0.0797	80	0.0741	74	71-133	7	35	mg/kg	07.07.17 18:33	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		117		80-120	%	07.07.17 18:33
4-Bromofluorobenzene	99		118		80-120	%	07.07.17 18:33



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 07/03/2017 11:55:00 AM

Work Order #: 556813

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)?	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)?	N/A
#21 VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by: Jessica Kramer
Jessica Kramer

Date: 07/03/2017

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks

Date: 07/03/2017

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141
Revised August 8, 2011

DEC 20 2016

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

RECEIVED

Release Notification and Corrective Action

DAB1636344622

Name of Company: COG Operating LLC <i>229137</i>		OPERATOR ☒ Initial Report ☐ Final Report	
Address: 600 West Illinois Avenue, Midland TX 79701		Contact: Robert McNeill	
Facility Name: MYOX 21 STATE COM #009H		Telephone No. 432-683-7443	
		Facility Type: Tank Battery	
Surface Owner: State	Mineral Owner:	API No.	30-015-37416

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	21	25S	28E	660'	South	330'	West	Eddy

Latitude 32.1099434 Longitude 104.0997009

NATURE OF RELEASE

Type of Release: Oil & Produced Water	Volume of Release: 10bbls of Oil & 1bbl of Produced Water	Volume Recovered: 6bbls of Oil & 1bbl of Produced Water
Source of Release: FWKO	Date and Hour of Occurrence: 12-18-2016 07:00 am	Date and Hour of Discovery: 12-18-2016 07:00 am
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* This release was caused by a gasket that failed on a FWKO. Replace the gasket on the FWKO.		
Describe Area Affected and Cleanup Action Taken.* This release was mostly contained within a lined facility a 60 X30 area in the pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area evaluated for any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: <i>Robert Grubbs Jr.</i>	OIL CONSERVATION DIVISION	
Printed Name: Robert Grubbs Jr.	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Senior HSE Coordinator	Approval Date: <i>12/28/16</i>	Expiration Date: <i>N/A</i>
E-mail Address: <i>rgrubbs@concho.com</i>	Conditions of Approval: <i>See attached</i>	Attached ☒
Date: December 20, 2016 Phone: 432-683-7443		

* Attach Additional Sheets If Necessary

2RP-4045

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **12/20/2016** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number ARP-4045 has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 2/1/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

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

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

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

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

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

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

Jim Griswold

OCD Environmental Bureau Chief

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Patterson, Heather, EMNRD

From: Robert Grubbs <RGrubbs@concho.com>
Sent: Tuesday, December 20, 2016 9:57 AM
To: Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD; Weaver, Crystal, EMNRD
Subject: (C-141) Initial MYOX 21 STATE COM #009H (TB)30-015-37416
Attachments: Myox 21 State Com #009H (TB) Initial.pdf

MR. BRATCHER / MS. GROVES,

ATTACHED IS A C-141 FOR YOUR CONSIDERATION. IF YOU HAVE ANY ADDITIONAL QUESTIONS PLEASE FEEL FREE TO CONTACT ME.

THANK YOU,

ROBERT GRUBBS JR.
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