APPROVED
By Olivia Yu at 7:29 am, Nov 06, 2018

NMOCD grants closure to 1RP-4944.

10 Desta Drive Suite 150E
Midland, TX 79705

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September 13, 2018

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

Ryan Mann
Hobbs Field Office
New Mexico State Land Office
2827 North Dal Paso Street, Suite 117
Hobbs, NM 88240

Re: **Remediation Summary and Closure Report**
Albatross State Com #002H
API No. 30-025-41544
GPS: 32.725502, -103.4947205
UL "B", Sec. 30, T18S, R35E
Lea Co, NM
NMOCD Ref. No. 1RP-4944

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG), has prepared this *Remediation Summary and Closure Report* for the Release Site known as the **Albatross State Com #002H.** Details of the release are summarized below:

RELEASE DETAILS			
Type of Release: Crude Oil	**Volume of Release:** 10 bbls Oil		
	Volume Recovered: 7 bbls Oil		
Source of Release: Wellhead	**Date of Release:** 01/23/18	**Date of Discovery:** 01/23/18	
Was Immediate Notice Given? Not Required	**If YES, to Whom?** Not Applicable		
Was a Watercourse Reached? No	**Volume Impacted the Watercourse:** Not Applicable		
Cause of Problem and Remedial Action Taken: The release was attributed to a valve which was in the wrong position. During initial response activities, a vacuum truck was dispatched to recover all freestanding fluids.			

A Site Location Map is provided as Attachment #1. A copy of the initial Release Notification and Corrective Action (NMOCD Form C-141) is provided as Attachment #6.

REGULATORY FRAMEWORK

Crude oil facilities in New Mexico are generally regulated by the New Mexico Oil Conservation Division (NMOCD). Impact of soil due to a surface release is addressed in the NMOCD guidance document titled *Guidelines for Remediation of Leaks, Spills and Releases* , dated August 13, 1993.

The guidance document provides direction for initial response actions, site assessment, sampling procedures and provides a total ranking score based on the depth to groundwater, distance to private and domestic water sources, and the distance to the nearest surface water body as follows:

RANKING SCORE CRITERIA		
General Site Characteristics		**Score**
Depth to Groundwater	< 50 Feet	**20**
	50-99 Feet	**10**
	> 100 Feet	**0**
Well Head Protection Area, <1,000 Feet from water source, or <200 Feet from private domestic water source	Yes	**20**
	No	**0**
Distance to Surface Water Body	< 200 Feet	**20**
	200 - 1,000 Feet	**10**
	> 1,000 Feet	**0**

A search of a groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) was conducted to determine the average depth to groundwater within the Section and identify any registered water wells within 1,000 ft. of the release site. If none were identified, the approximate depth to groundwater was extrapolated from a Depth to Groundwater Map utilized by the NMOCD. The results of the groundwater database search are provided as Attachment #3.

TOTAL RANKING SCORE FOR SITE		
Ranking Score Criteria		**Score**
Depth to Groundwater	~ 75 Feet	**10**
Well Head Protection Area, <1,000 Feet from water source, or <200 Feet from private domestic water source	No	**0**
Distance to Surface Water Body	> 1,000 Feet	**0**
TOTAL RANKING SCORE FOR SITE		**10**

The NMOCD guidelines indicated the Site has an initial ranking score of 10 points. The NMOCD Recommended Remediation Action Levels (RRAL) for a Site with a ranking score of 10 points are as follows:

RECOMMENDED REMEDIATION ACTION LEVELS	
Benzene	**10 mg/kg**
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX)	**50 mg/kg**
Total Petroleum Hydrocarbons (TPH)	**1,000 mg/kg**
Chloride	**600 mg/kg**

INITIAL INVESTIGATION

On **March 7, 2018**, TRC conducted an initial soil investigation at the Site. Six (6) delineation soil samples were collected from the affected area in an effort to determine the vertical and horizontal extent of the area of impact. On **April 10, 2018**, an additional soil investigation was conducted at the Release Site and six (6) additional delineation soil samples were collected. The collected soil samples were submitted to an NMOCD-approved laboratory for analysis of benzene, BTEX, TPH, and chloride concentrations. A table summarizing laboratory analytical results from soil samples collected during the initial soil assessment and additional soil investigation is provided below:

Sample ID	Depth	Soil Status	SW 846-8021b		SW-846 8015M					E300
			Benzene	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_{28}	TOTAL TPH C_6-C_{35}	CHLORIDE
SP-1 @ Surf.	0-3"	In-Situ	<0.361	23.911	692	16,500	2,140	**19,332**		**1,170**
SP-1 @ 6"	6"	In-Situ	<0.0982	1.219	50.1	5170	627	**5,847.1**		**1,090**
SP-1 @ 3'	3'	In-Situ	<0.0191	<0.0191	<3.82	<25.2	<25.2	<25.2		350
SP-2 @ 4'	4'	In-Situ	<0.0180	<0.018	<3.60	<25.0	<25.0	<25.0		325
N @ 6"	6"	In-Situ	<0.0174	0.0191	<3.48	368	103	471		**1,580**
N2 @ 1'	1'	In-Situ	<0.0198	<0.0198	<3.97	<24.9	<24.9	<24.9		<25
E @ 6"	6"	In-Situ	<0.0199	0.2804	12.9	22.5	<15.0	35.4		**24,400**
E-2 @ 1'	1'	In-Situ	<0.0191	<0.0191	<3.82	<25.0	<25.0	<25.0		115
S @ 6"	6"	In-Situ	<0.0182	0.1036	<3.64	208	126	334		**34,400**
S2 @ 1'	1'	In-Situ	<0.0195	<0.0195	<3.89	740	136	876		**670**
W @ 6"	6"	In-Situ	<0.0986	<0.0986	<19.7	1980	393	**2,373**		**1,300**
W2 @ 1'	1'	In-Situ	<0.0193	<0.0193	<3.86	<24.9	<24.9	<24.9		135
NMOCD RRAL			**10**	**50**	**-**	**-**	**-**	**-**	**1,000**	**600**

Laboratory analytical reports are provided as Attachment #4. A "Site & Sample Location Map" is provided as Attachment #2.

PROPOSED REMEDIATION ACTIVITIES AND REMEDIATION WORKPLAN

Based on laboratory analytical results, site conditions and field observations made during the initial release assessment, COG proposed the following remediation activities designed to advance the Release Site toward an approved closure:

• Utilizing a backhoe, excavate the Release Site to a depth of approximately three (3) feet bgs in the area represented by sample point SP-1, four (4) feet bgs in the area represented by sample point SP-2, or until laboratory analytical results indicate chloride and TPH concentrations are below the NMOCD RRAL. The excavated soil will be stockpiled on-site, atop a 6 mil poly liner, pending transportation under manifest to a NMOCD-approved disposal facility.
• Advance the excavation sidewalls until laboratory analytical results from confirmation soil samples indicate chloride and TPH concentrations are below the NMCD RRAL.
• Upon excavating impacted soil from within the release margins, confirmation soil samples will be collected from the base and sidewalls of the excavated area and submitted to the laboratory for determination of BTEX, TPH, and chloride concentrations.
• On receipt of favorable analytical results (below NMOCD regulatory guidelines), the excavation will be backfilled with locally sourced, non-impacted "like" material.
• Upon completion of remediation activities and receipt of laboratory analytical results from confirmation soil samples, TRC will prepare and submit a "Remediation Summary and Site Closure Request" to the NMOCD and NMSLO on behalf of COG.

The *Workplan* was subsequently approved.

SUMMARY OF FIELD ACTIVITIES

Impacted soil within the release margins was excavated and stockpiled on-site, atop an impermeable liner, pending final disposition. Impacted soil in the area represented by sample point SP-1 was excavated to a depth of approximately three and one half (3.5) feet (ft) bgs. Impacted soil represented by the sample point SP-2 was excavated to approximately four (4) ft bgs. The sidewalls of the excavation were advanced until laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the NMOCD RRAL. Upon excavating impacted soil from within the release margins, seventeen (17) excavation confirmation soil samples were collected from the floor and sidewalls of the excavated area and submitted to the laboratory for analysis of BTEX, TPH, and chloride concentrations. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the NMOCD RRAL in each of the submitted soil samples. Excavated material was transported under manifest to an NMOCD approved facility and the excavation was backfilled with locally sourced, non-impacted "like" material. A table summarizing laboratory analytical results from confirmation soil samples is provided below:

Sample ID	Depth	Soil Status	SW 846-8021b		SW-846 8015M				E300
			Benzene	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
SP-1 SSW-1	1.5'	In-Situ	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	351
SP-1 SSW-2	1.5'	In-Situ	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	364
SP-1 SSW-3	1.5'	In-Situ	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	270
SP-1 ESW-1	1.5'	In-Situ	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	200
SP-1 ESW-2	1.5'	In-Situ	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	259
SP-1 WSW	1.5'	In-Situ	<0.00202	<0.00202	<14.9	<14.9	<14.9	<14.9	574
SP-1 NSW-1	1.5'	In-Situ	<0.00200	<0.00200	<15.0	30.7	<15.0	30.7	256
SP-1 NSW-2	1.5'	In-Situ	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	202
SP-1 NSW-3	1.5'	In-Situ	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	198
SP-1 FL-1	3.5'	In-Situ	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	198
SP-1 FL-2	3.5'	In-Situ	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	225
SP-1 FL-3	3.5'	In-Situ	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	236
SP-2 ESW	2'	In-Situ	<0.00200	<0.00200	<15.0	33.5	<15.0	33.5	421
SP-2 NSW	2'	In-Situ	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	21.4
SP-2 WSW	2'	In-Situ	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	586
SP-2 SSW	3'	In-Situ	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	46.4
SP-2 FL @ 4'	4'	In-Situ	<0.00201	<0.00201	<15.0	77.9	<15.0	77.9	172
NMOCD RRAL			**10**	**50**	**-**	**-**	**-**	**1,000**	**600**

Upon receiving laboratory analytical results from confirmation soil samples, the excavated area was backfilled with locally sourced, non-impacted "like" material. A Photographic Log is provided as Attachment #5.

EXCAVATION/REMEDIATION DETAIL SUMMARY			
Type of Remediation:	Dig and Haul		
Date Remediation Activities Began:	July 12, 2018		
Excavation Dimensions:	**Length:** 35 to 130 Ft.	**Width:** 34 to 105 Ft.	**Depth:** 3.5 to 4 Ft.
Soil Transportation Start Date:	July 17, 2018	**Backfill Date:**	August 6, 2018
Total Yards Transported to Disposal:	1,762	**Disposal Facility:**	R-360 Half-Way Facility

LIMITATIONS

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

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of COG Operating, LLC. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or COG Operating, LLC.

SITE CLOSURE REQUEST

Remediation activities were conducted in accordance with the NMOCD- and NMSLO-approved *Workplan* . Excavated impacted material was transported to an NMOCD-approved disposal facility and the site was backfilled with locally sourced, non-impacted "like" material. TRC on behalf of COG Operating, LLC respectfully requests the NMOCD and NMSLO grant closure approval for the Albatross State Com #002H release which occurred on January 23, 2018.

If you have any questions, or if additional is required, please feel free to contact Becky Haskell or either of the undersigned by phone or email.

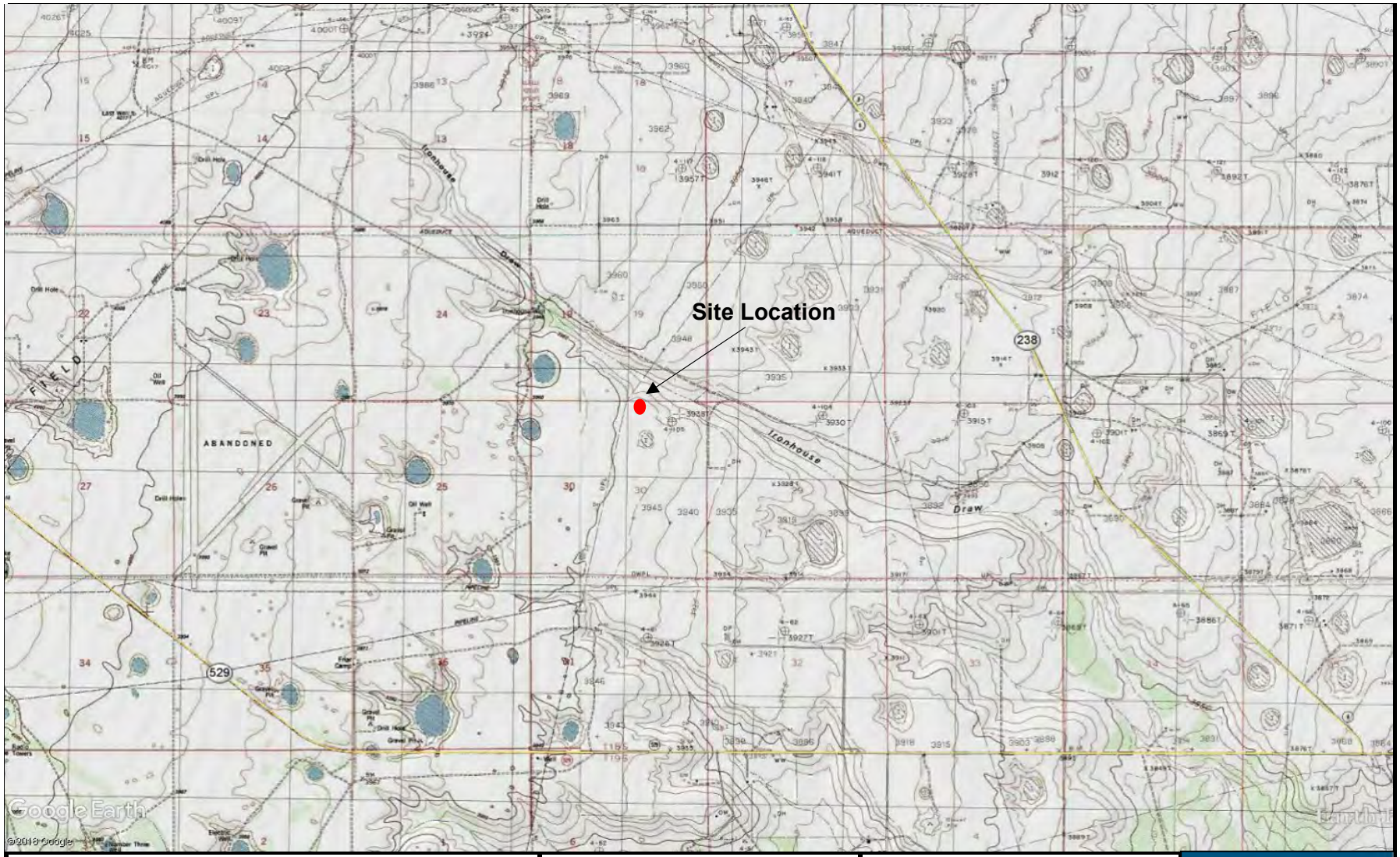
Respectfully,

Joel Lowry
Senior Project Manager
TRC Environmental Corp.

Curt Stanley
Senior Project Manager
TRC Environmental Corp.

Attachments:

	Attachment #1-	Figure 1 - Site Location Map
	Attachment #2-	Figure 2 - Site & Sample Location Map
	Attachment #3-	Groundwater Database Search
	Attachment #4-	Laboratory Analytical Reports
	Attachment #5-	Photographic Log
	Attachment #6-	Release Notification and Corrective Action (FORM C-141)



LEGEND:

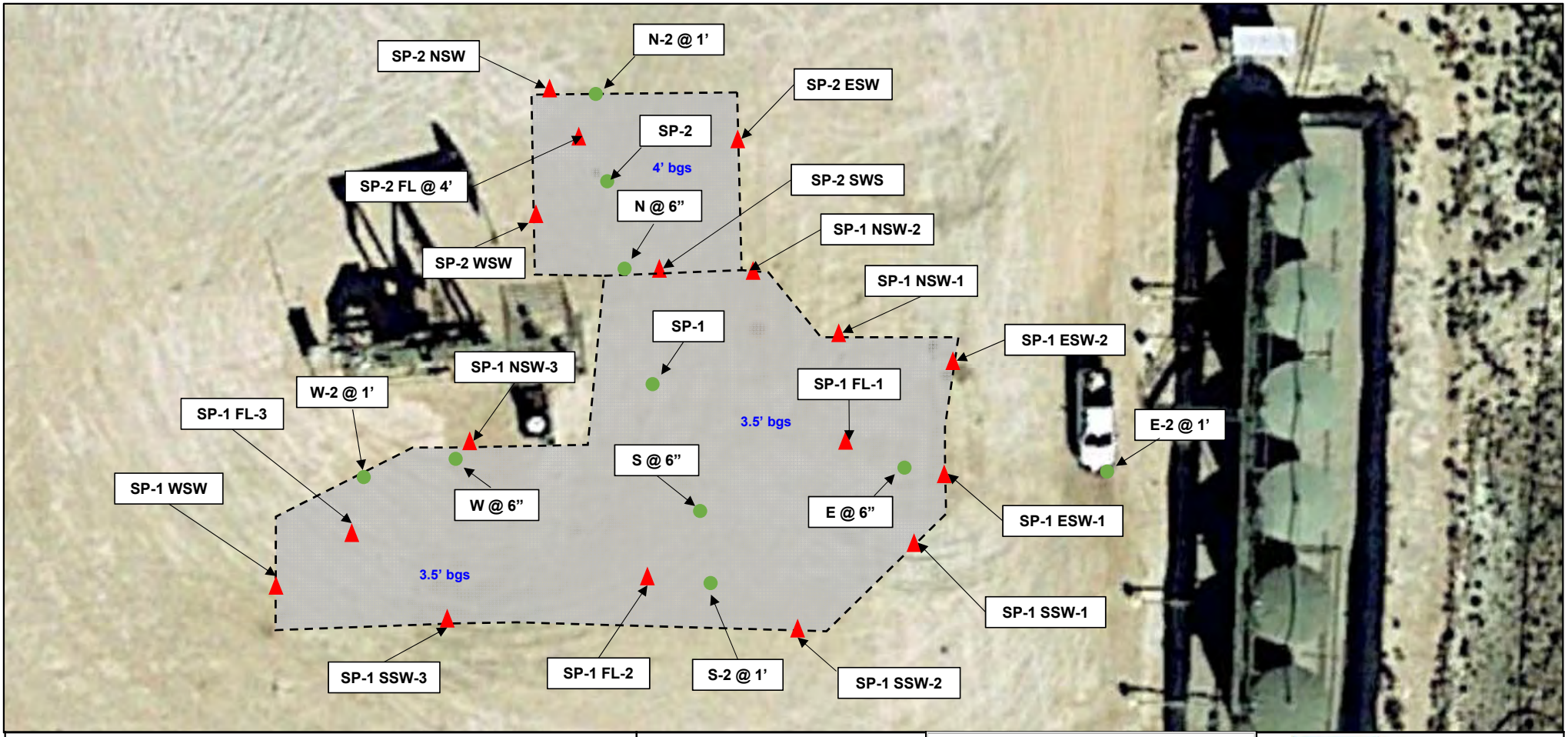
● Site Location

Figure 1

Site Location Map
COG Operating, LLC
Albatross State Com #002H
Lea Co, NM

Scale 1" = 8,500'
Drafted by: ZC | Checked by: JL
Draft: May 17, 2018
GPS: 32.725502, -103.4947205
UL "B", Sec. 30, T18S, R35E
TRC Proj. No: 299901

TRC
Results you can rely on



LEGEND:

- Confirmation Soil Sample Location
- Delineation Soil Sample Location
- Excavated Area

Figure 2

Site & Sample Location Map

COG Operating, LLC

Albatross State Com #002H

Lea County, New Mexico

Scale: 1" ~ 30'	
Drafted by: BC	Checked by: JL
Draft: August 22, 2018	
Lat. N 32.725502 Long. W 103.49472	
UL "B", Sec. 30, T18S, R35E	
TRC Proj. No.: 299901	

TRC

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Midland, TX 79705

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New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 04562		L	LE		3	1	29	18S	35E	641874	3621315*	991	156	95	61
L 07928		L	LE	4	4	1	19	18S	35E	640639	3622915	1132	175		
L 12926 POD1		L	LE	2	2	3	25	18S	34E	639839	3621631	1225	182	117	65
L 03888		L	LE		3	1	19	18S	35E	640253	3622912*	1317	107	70	37

Average Depth to Water: **94 feet**

Minimum Depth: **70 feet**

Maximum Depth: **117 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 641044.25 **Northing (Y):** 3621857.95 **Radius:** 1610

***UTM location was derived from PLSS - see Help**

5/18/18 8:25 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Certificate of Analysis Summary 578785

TRC Solutions, Inc, Midland, TX

Project Name: Albatross State Com #002H

Project Id:

Contact: Joel Lowry

Project Location: Eddy Co. NM

Date Received in Lab: Thu Mar-08-18 05:45 pm

Report Date: 12-MAR-18

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	578785-001		578785-002		578785-003		578785-004		578785-005		578785-006	
	Field Id:	N @ 6"		E @ 6"		S @ 6"		W @ 6"		SP-1 @ Surface		SP-1 @ 6"	
	Depth:	6- In		6- In		6- In		6- In		Surf- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-07-18 08:55		Mar-07-18 09:00		Mar-07-18 09:05		Mar-07-18 09:10		Mar-07-18 09:15		Mar-07-18 09:20	
BTEX by EPA 8021B	***Extracted:***	Mar-09-18 14:00		Mar-09-18 14:00		Mar-09-18 14:00		Mar-09-18 14:00		Mar-09-18 14:00		Mar-09-18 14:00	
	Analyzed:	Mar-10-18 06:00		Mar-10-18 12:48		Mar-10-18 13:14		Mar-11-18 01:24		Mar-11-18 01:52		Mar-11-18 03:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0174	0.0174	<0.0199	0.0199	<0.0182	0.0182	<0.0986	0.0986	<0.361	0.361	<0.0982	0.0982
Toluene		<0.0174	0.0174	<0.0199	0.0199	<0.0182	0.0182	<0.0986	0.0986	0.361	0.361	<0.0982	0.0982
Ethylbenzene		0.0191	0.0174	0.0637	0.0199	0.0273	0.0182	<0.0986	0.0986	5.56	0.361	0.334	0.0982
m,p-Xylenes		<0.0348	0.0348	0.139	0.0398	0.0545	0.0364	<0.197	0.197	10.3	0.722	0.580	0.196
o-Xylene		<0.0174	0.0174	0.0777	0.0199	0.0218	0.0182	<0.0986	0.0986	7.69	0.361	0.305	0.0982
Xylenes, Total		<0.0174	0.0174	0.2167	0.0199	0.0763	0.0182	<0.0986	0.0986	17.99	0.361	0.885	0.0982
Total BTEX		0.0191	0.0174	0.2804	0.0199	0.1036	0.0182	<0.0986	0.0986	23.911	0.361	1.219	0.0982
Chloride by EPA 300	***Extracted:***	Mar-10-18 09:30		Mar-10-18 09:30		Mar-10-18 09:30		Mar-10-18 09:30		Mar-10-18 09:30		Mar-10-18 09:30	
	Analyzed:	Mar-10-18 13:16		Mar-10-18 13:28		Mar-10-18 13:40		Mar-10-18 13:53		Mar-10-18 14:05		Mar-10-18 14:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1580	125	24400	2500	34400	2500	1300	125	1170	125	1090	125
DRO-ORO By SW8015B SUB: TX104704215-18-24	***Extracted:***	Mar-10-18 11:42		Mar-10-18 11:45		Mar-10-18 11:48		Mar-10-18 11:51		Mar-10-18 11:54		Mar-10-18 11:57	
	Analyzed:	Mar-10-18 21:27		Mar-12-18 12:44		Mar-10-18 21:49		Mar-10-18 23:56		Mar-11-18 00:18		Mar-11-18 01:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Diesel Range Organics (DRO)		368	14.9	22.5	15.0	208	15.0	1980	14.9	16500	74.8	5170	15.0
Oil Range Hydrocarbons (ORO)		103	14.9	<15.0	15.0	126	15.0	393	14.9	2140	74.8	627	15.0
TPH GRO by EPA 8015 Mod.	***Extracted:***	Mar-09-18 14:00		Mar-09-18 14:00		Mar-09-18 14:00		Mar-09-18 14:00		Mar-09-18 14:00		Mar-09-18 14:00	
	Analyzed:	Mar-10-18 06:00		Mar-10-18 12:48		Mar-10-18 13:14		Mar-11-18 01:24		Mar-11-18 01:52		Mar-11-18 03:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
TPH-GRO		<3.48	3.48	12.9	3.98	<3.64	3.64	<19.7	19.7	692	72.2	50.1	19.6

Kelsey Brooks
Project Manager

Analytical Report 578785

for

TRC Solutions, Inc

Project Manager: Joel Lowry

Albatross State Com #002H

12-MAR-18

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-18-24), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

12-MAR-18

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

Reference: XENCO Report No(s): **578785**
Albatross State Com #002H
Project Address: Eddy Co. 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) 578785. 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. 578785 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 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
N @ 6"	S	03-07-18 08:55	6 In	578785-001
E @ 6"	S	03-07-18 09:00	6 In	578785-002
S @ 6"	S	03-07-18 09:05	6 In	578785-003
W @ 6"	S	03-07-18 09:10	6 In	578785-004
SP-1 @ Surface	S	03-07-18 09:15	Surf In	578785-005
SP-1 @ 6"	S	03-07-18 09:20	6 In	578785-006

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3043314 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3043344 BTEX by EPA 8021B
Samples 578785-004, 578785-005, and 578785-006 were diluted due to turbidity.

Batch: LBA-3043345 TPH GRO by EPA 8015 Mod.
Sample 578785-004 was diluted due to turbidity.

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**N @ 6''**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-001	Date Collected:	03.07.18 08.55	Sample Depth:	6 In

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	03.10.18 09.30	Basis:	Wet Weight
Seq Number:	3043343				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1580**	125	mg/kg	03.10.18 13.16		5

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	03.10.18 11.42	Basis:	Wet Weight
Seq Number:	3043382			SUB:	TX104704215-18-24

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**368**	14.9	mg/kg	03.10.18 21.27		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**103**	14.9	mg/kg	03.10.18 21.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.10.18 21.27	
o-Terphenyl	84-15-1	89	%	70-135	03.10.18 21.27	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043314				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0174	0.0174	mg/kg	03.10.18 06.00	U	1
Toluene	108-88-3	<0.0174	0.0174	mg/kg	03.10.18 06.00	U	1
Ethylbenzene	100-41-4	**0.0191**	0.0174	mg/kg	03.10.18 06.00		1
m,p-Xylenes	179601-23-1	<0.0348	0.0348	mg/kg	03.10.18 06.00	U	1
o-Xylene	95-47-6	<0.0174	0.0174	mg/kg	03.10.18 06.00	U	1
Xylenes, Total	1330-20-7	<0.0174	0.0174	mg/kg	03.10.18 06.00	U	1
Total BTEX		**0.0191**	0.0174	mg/kg	03.10.18 06.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	68-120	03.10.18 06.00	
a,a,a-Trifluorotoluene	98-08-8	98	%	71-121	03.10.18 06.00	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**N @ 6''**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-001	Date Collected:	03.07.18 08.55	Sample Depth:	6 In
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043319				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<3.48	3.48		mg/kg	03.10.18 06.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	76-123	03.10.18 06.00	
a,a,a-Trifluorotoluene	98-08-8	101	%	69-120	03.10.18 06.00	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**E @ 6''**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-002	Date Collected:	03.07.18 09.00	Sample Depth:	6 In

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	03.10.18 09.30	Basis:	Wet Weight
Seq Number:	3043343				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24400**	2500	mg/kg	03.10.18 13.28		100

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	03.10.18 11.45	Basis:	Wet Weight
Seq Number:	3043382			SUB:	TX104704215-18-24

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**22.5**	15.0	mg/kg	03.12.18 12.44		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	03.12.18 12.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.12.18 12.44	
o-Terphenyl	84-15-1	109	%	70-135	03.12.18 12.44	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043314				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0199	0.0199	mg/kg	03.10.18 12.48	U	1
Toluene	108-88-3	<0.0199	0.0199	mg/kg	03.10.18 12.48	U	1
Ethylbenzene	100-41-4	**0.0637**	0.0199	mg/kg	03.10.18 12.48		1
m,p-Xylenes	179601-23-1	**0.139**	0.0398	mg/kg	03.10.18 12.48		1
o-Xylene	95-47-6	**0.0777**	0.0199	mg/kg	03.10.18 12.48		1
Xylenes, Total	1330-20-7	**0.2167**	0.0199	mg/kg	03.10.18 12.48		1
Total BTEX		**0.2804**	0.0199	mg/kg	03.10.18 12.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	68-120	03.10.18 12.48	
a,a,a-Trifluorotoluene	98-08-8	91	%	71-121	03.10.18 12.48	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**E @ 6''**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-002	Date Collected:	03.07.18 09.00	Sample Depth:	6 In
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043319				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**12.9**	3.98		mg/kg	03.10.18 12.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	76-123	03.10.18 12.48	
a,a,a-Trifluorotoluene	98-08-8	96	%	69-120	03.10.18 12.48	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**S @ 6''**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-003	Date Collected:	03.07.18 09.05	Sample Depth:	6 In

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	03.10.18 09.30	Basis:	Wet Weight
Seq Number:	3043343				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**34400**	2500	mg/kg	03.10.18 13.40		100

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	03.10.18 11.48	Basis:	Wet Weight
Seq Number:	3043382			SUB:	TX104704215-18-24

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**208**	15.0	mg/kg	03.10.18 21.49		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**126**	15.0	mg/kg	03.10.18 21.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	03.10.18 21.49	
o-Terphenyl	84-15-1	86	%	70-135	03.10.18 21.49	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043314				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0182	0.0182	mg/kg	03.10.18 13.14	U	1
Toluene	108-88-3	<0.0182	0.0182	mg/kg	03.10.18 13.14	U	1
Ethylbenzene	100-41-4	**0.0273**	0.0182	mg/kg	03.10.18 13.14		1
m,p-Xylenes	179601-23-1	**0.0545**	0.0364	mg/kg	03.10.18 13.14		1
o-Xylene	95-47-6	**0.0218**	0.0182	mg/kg	03.10.18 13.14		1
Xylenes, Total	1330-20-7	**0.0763**	0.0182	mg/kg	03.10.18 13.14		1
Total BTEX		**0.1036**	0.0182	mg/kg	03.10.18 13.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	68-120	03.10.18 13.14	
a,a,a-Trifluorotoluene	98-08-8	92	%	71-121	03.10.18 13.14	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**S @ 6''**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-003	Date Collected:	03.07.18 09.05	Sample Depth:	6 In
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043319				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<3.64	3.64		mg/kg	03.10.18 13.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	76-123	03.10.18 13.14	
a,a,a-Trifluorotoluene	98-08-8	95	%	69-120	03.10.18 13.14	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**W @ 6''**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-004	Date Collected:	03.07.18 09.10	Sample Depth:	6 In

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	03.10.18 09.30	Basis:	Wet Weight
Seq Number:	3043343				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1300**	125	mg/kg	03.10.18 13.53		5

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	03.10.18 11.51	Basis:	Wet Weight
Seq Number:	3043382			SUB:	TX104704215-18-24

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**1980**	14.9	mg/kg	03.10.18 23.56		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**393**	14.9	mg/kg	03.10.18 23.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.10.18 23.56	
o-Terphenyl	84-15-1	94	%	70-135	03.10.18 23.56	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043344				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0986	0.0986	mg/kg	03.11.18 01.24	U	5
Toluene	108-88-3	<0.0986	0.0986	mg/kg	03.11.18 01.24	U	5
Ethylbenzene	100-41-4	<0.0986	0.0986	mg/kg	03.11.18 01.24	U	5
m,p-Xylenes	179601-23-1	<0.197	0.197	mg/kg	03.11.18 01.24	U	5
o-Xylene	95-47-6	<0.0986	0.0986	mg/kg	03.11.18 01.24	U	5
Xylenes, Total	1330-20-7	<0.0986	0.0986	mg/kg	03.11.18 01.24	U	5
Total BTEX		<0.0986	0.0986	mg/kg	03.11.18 01.24	U	5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	68-120	03.11.18 01.24	
a,a,a-Trifluorotoluene	98-08-8	87	%	71-121	03.11.18 01.24	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**W @ 6''**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-004	Date Collected:	03.07.18 09.10	Sample Depth:	6 In
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043345				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<19.7	19.7		mg/kg	03.11.18 01.24	U	5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	76-123	03.11.18 01.24	
a,a,a-Trifluorotoluene	98-08-8	80	%	69-120	03.11.18 01.24	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**SP-1 @ Surface**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-005	Date Collected:	03.07.18 09.15	Sample Depth:	Surf In

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	03.10.18 09.30	Basis:	Wet Weight
Seq Number:	3043343				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1170**	125	mg/kg	03.10.18 14.05		5

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	03.10.18 11.54	Basis:	Wet Weight
Seq Number:	3043382			SUB:	TX104704215-18-24

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**16500**	74.8	mg/kg	03.11.18 00.18		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**2140**	74.8	mg/kg	03.11.18 00.18		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	03.11.18 00.18	
o-Terphenyl	84-15-1	115	%	70-135	03.11.18 00.18	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043344				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.361	0.361	mg/kg	03.11.18 01.52	U	20
Toluene	108-88-3	**0.361**	0.361	mg/kg	03.11.18 01.52		20
Ethylbenzene	100-41-4	**5.56**	0.361	mg/kg	03.11.18 01.52		20
m,p-Xylenes	179601-23-1	**10.3**	0.722	mg/kg	03.11.18 01.52		20
o-Xylene	95-47-6	**7.69**	0.361	mg/kg	03.11.18 01.52		20
Xylenes, Total	1330-20-7	**17.99**	0.361	mg/kg	03.11.18 01.52		20
Total BTEX		**23.911**	0.361	mg/kg	03.11.18 01.52		20

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	68-120	03.11.18 01.52	
a,a,a-Trifluorotoluene	98-08-8	83	%	71-121	03.11.18 01.52	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**SP-1 @ Surface**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-005	Date Collected:	03.07.18 09.15	Sample Depth:	Surf In
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043345				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**692**	72.2		mg/kg	03.11.18 01.52		20

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	131	%	76-123	03.11.18 01.52	**
a,a,a-Trifluorotoluene	98-08-8	84	%	69-120	03.11.18 01.52	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**SP-1 @ 6''**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-006	Date Collected:	03.07.18 09.20	Sample Depth:	6 In

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	03.10.18 09.30	Basis:	Wet Weight
Seq Number:	3043343				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1090**	125	mg/kg	03.10.18 14.18		5

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	03.10.18 11.57	Basis:	Wet Weight
Seq Number:	3043382			SUB:	TX104704215-18-24

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	**5170**	15.0	mg/kg	03.11.18 01.22		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**627**	15.0	mg/kg	03.11.18 01.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	03.11.18 01.22	
o-Terphenyl	84-15-1	100	%	70-135	03.11.18 01.22	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043344				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0982	0.0982	mg/kg	03.11.18 03.19	U	5
Toluene	108-88-3	<0.0982	0.0982	mg/kg	03.11.18 03.19	U	5
Ethylbenzene	100-41-4	**0.334**	0.0982	mg/kg	03.11.18 03.19		5
m,p-Xylenes	179601-23-1	**0.580**	0.196	mg/kg	03.11.18 03.19		5
o-Xylene	95-47-6	**0.305**	0.0982	mg/kg	03.11.18 03.19		5
Xylenes, Total	1330-20-7	**0.885**	0.0982	mg/kg	03.11.18 03.19		5
Total BTEX		**1.219**	0.0982	mg/kg	03.11.18 03.19		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	68-120	03.11.18 03.19	
a,a,a-Trifluorotoluene	98-08-8	82	%	71-121	03.11.18 03.19	

Certificate of Analytical Results 578785

TRC Solutions, Inc, Midland, TX

Albatross State Com #002H

Sample Id:	**SP-1 @ 6''**	Matrix:	Soil	Date Received:	03.08.18 17.45
Lab Sample Id:	578785-006	Date Collected:	03.07.18 09.20	Sample Depth:	6 In
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	03.09.18 14.00	Basis:	Wet Weight
Seq Number:	3043345				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	**50.1**	19.6		mg/kg	03.11.18 03.19		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	76-123	03.11.18 03.19	
a,a,a-Trifluorotoluene	98-08-8	86	%	69-120	03.11.18 03.19	

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

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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

QC Summary 578785

TRC Solutions, Inc

Albatross State Com #002H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3043343 Matrix: Solid Date Prep: 03.10.18
MB Sample Id: 7640526-1-BLK LCS Sample Id: 7640526-1-BKS LCSD Sample Id: 7640526-1-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	262	105	262	105	90-110	0	20	mg/kg	03.10.18 11:49	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3043343 Matrix: Soil Date Prep: 03.10.18
Parent Sample Id: 578782-001 MS Sample Id: 578782-001 S MSD Sample Id: 578782-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8890	250	9090	80	8770	0	80-120	4	20	mg/kg	03.10.18 12:26	X
Chloride	8890	250	8770	0	8770	0	80-120	4	20	mg/kg	03.10.18 12:38	X

Analytical Method: **DRO-ORO By SW8015B** Prep Method: SW8015P
Seq Number: 3043382 Matrix: Solid Date Prep: 03.10.18
MB Sample Id: 7640523-1-BLK LCS Sample Id: 7640523-1-BKS LCSD Sample Id: 7640523-1-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)	<15.0	1000	1100	110	1170	117	70-135	6	35	mg/kg	03.10.18 12:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		108		117		70-135	%	03.10.18 12:27
o-Terphenyl	100		104		115		70-135	%	03.10.18 12:27

Analytical Method: **DRO-ORO By SW8015B** Prep Method: SW8015P
Seq Number: 3043382 Matrix: Soil Date Prep: 03.10.18
Parent Sample Id: 578782-001 MS Sample Id: 578782-001 S MSD Sample Id: 578782-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Diesel Range Organics (DRO)	25.9	996	1300	128	1240	122	70-135	5	35	mg/kg	03.10.18 17:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		105		70-135	%	03.10.18 17:12
o-Terphenyl	101		97		70-135	%	03.10.18 17:12

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 578785

TRC Solutions, Inc

Albatross State Com #002H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3043314 Matrix: Solid Date Prep: 03.09.18
MB Sample Id: 7640482-1-BLK LCS Sample Id: 7640482-1-BKS LCSD Sample Id: 7640482-1-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	1.87	94	1.82	91	55-120	3	20	mg/kg	03.09.18 20:57	
Toluene	<0.0200	2.00	1.77	89	1.79	90	77-120	1	20	mg/kg	03.09.18 20:57	
Ethylbenzene	<0.0200	2.00	1.73	87	1.82	91	77-120	5	20	mg/kg	03.09.18 20:57	
m,p-Xylenes	<0.0400	4.00	3.46	87	3.64	91	78-120	5	20	mg/kg	03.09.18 20:57	
o-Xylene	<0.0200	2.00	1.75	88	1.82	91	78-120	4	20	mg/kg	03.09.18 20:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	88		84		89		68-120	%	03.09.18 20:57
a,a,a-Trifluorotoluene	86		77		77		71-121	%	03.09.18 20:57

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3043344 Matrix: Solid Date Prep: 03.09.18
MB Sample Id: 7640501-1-BLK LCS Sample Id: 7640501-1-BKS LCSD Sample Id: 7640501-1-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	1.76	88	1.82	91	55-120	3	20	mg/kg	03.10.18 17:45	
Toluene	<0.0200	2.00	1.79	90	1.74	87	77-120	3	20	mg/kg	03.10.18 17:45	
Ethylbenzene	<0.0200	2.00	1.78	89	1.74	87	77-120	2	20	mg/kg	03.10.18 17:45	
m,p-Xylenes	<0.0400	4.00	3.58	90	3.49	87	78-120	3	20	mg/kg	03.10.18 17:45	
o-Xylene	<0.0200	2.00	1.80	90	1.75	88	78-120	3	20	mg/kg	03.10.18 17:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	84		87		83		68-120	%	03.10.18 17:45
a,a,a-Trifluorotoluene	80		75		78		71-121	%	03.10.18 17:45

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3043314 Matrix: Soil Date Prep: 03.09.18
Parent Sample Id: 578782-002 MS Sample Id: 578782-002 S MSD Sample Id: 578782-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0177	1.77	1.48	84	1.44	82	54-120	3	25	mg/kg	03.10.18 00:34	
Toluene	<0.0177	1.77	1.53	86	1.51	86	57-120	1	25	mg/kg	03.10.18 00:34	
Ethylbenzene	<0.0177	1.77	1.55	88	1.60	91	58-131	3	25	mg/kg	03.10.18 00:34	
m,p-Xylenes	<0.0355	3.55	3.08	87	3.23	92	62-124	5	25	mg/kg	03.10.18 00:34	
o-Xylene	<0.0177	1.77	1.54	87	1.60	91	62-124	4	25	mg/kg	03.10.18 00:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	92		98		68-120	%	03.10.18 00:34
a,a,a-Trifluorotoluene	88		84		71-121	%	03.10.18 00:34

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
E = MSD/LCSD Result

QC Summary 578785

TRC Solutions, Inc

Albatross State Com #002H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3043344 Matrix: Soil Date Prep: 03.09.18
Parent Sample Id: 578782-003 MS Sample Id: 578782-003 S MSD Sample Id: 578782-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0181	1.81	1.55	86	1.57	84	54-120	1	25	mg/kg	03.10.18 21:20	
Toluene	<0.0181	1.81	1.57	87	1.61	87	57-120	3	25	mg/kg	03.10.18 21:20	
Ethylbenzene	<0.0181	1.81	1.66	92	1.70	91	58-131	2	25	mg/kg	03.10.18 21:20	
m,p-Xylenes	<0.0361	3.61	3.33	92	3.38	91	62-124	1	25	mg/kg	03.10.18 21:20	
o-Xylene	<0.0181	1.81	1.66	92	1.68	90	62-124	1	25	mg/kg	03.10.18 21:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	94		91		68-120	%	03.10.18 21:20
a,a,a-Trifluorotoluene	86		84		71-121	%	03.10.18 21:20

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3043319 Matrix: Solid Date Prep: 03.09.18
MB Sample Id: 7640497-1-BLK LCS Sample Id: 7640497-1-BKS LCSD Sample Id: 7640497-1-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	18.7	94	18.9	95	35-129	1	20	mg/kg	03.09.18 21:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	89		95		93		76-123	%	03.09.18 21:51
a,a,a-Trifluorotoluene	109		102		90		69-120	%	03.09.18 21:51

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3043345 Matrix: Solid Date Prep: 03.09.18
MB Sample Id: 7640505-1-BLK LCS Sample Id: 7640505-1-BKS LCSD Sample Id: 7640505-1-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	18.3	92	19.1	96	35-129	4	20	mg/kg	03.10.18 18:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	87		95		96		76-123	%	03.10.18 18:38
a,a,a-Trifluorotoluene	120		96		90		69-120	%	03.10.18 18:38

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 578785

TRC Solutions, Inc

Albatross State Com #002H

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3043319 Matrix: Soil Date Prep: 03.09.18
Parent Sample Id: 578782-002 MS Sample Id: 578782-002 S MSD Sample Id: 578782-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<3.87	19.3	14.6	76	14.4	76	35-129	1	20	mg/kg	03.10.18 01:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	105		102		76-123	%	03.10.18 01:27
a,a,a-Trifluorotoluene	83		83		69-120	%	03.10.18 01:27

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3043345 Matrix: Soil Date Prep: 03.09.18
Parent Sample Id: 578782-003 MS Sample Id: 578782-003 S MSD Sample Id: 578782-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<3.45	17.2	12.7	74	14.3	76	35-129	12	20	mg/kg	03.10.18 22:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	102		103		76-123	%	03.10.18 22:15
a,a,a-Trifluorotoluene	78		80		69-120	%	03.10.18 22:15

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

Setting the Standard since 1990

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Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

578785

Xenco Job # 578785

Client / Reporting Information

Company Name / Branch: TRC Environmental Corporation

Company Address: 2057 Commerce Drive, Midland, TX 79703

Email: jlowry@trcsolutions.com

Phone No: 432-466-4450

Project Contact: Joel Lowry

Samplers's Name Joel Lowry

Project Information

Project Name/Number: HIBATROSS STATE COM #002H

Project Location: Eddy Co, NM

Invoice To: COG Operating C/O Becky Haskell

Invoice:

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@6"	6"	3.7.18	8:55	S	1									X	X	X	
2	E@6"	6"	3.7.18	9:00	S	1									X	X	X	
3	S@6"	6"	3.7.18	9:05	S	1									X	X	-	
4	W@6"	6"	3.7.18	9:10	S	1									X	X	X	
5	SP-1@surface	Surf	3.7.18	9:15	S	1									X	X	X	
6	SP-1@6"	6"	5.7.18	9:20	S	1									X	X	X	
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [x] 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:

jlowry@trcsolutions.com

rhaskell@concho.com

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			1	2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time: 5/8/18 5:45	Received By: Brenda Ward	Custody Seal #	Preserved where applicable	On Ice: ✓ Cooler Temp. 1.3/1.3 Thermo. Corr. Factor IR-3

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.

Inter-Office Shipment

IOS Number **1057351**

Date/Time: 03/09/18 15:34
Lab# From: **Lubbock**
Lab# To: **Houston**

Created by: Brenda Ward
Delivery Priority:
Air Bill No.: 771768273134

Please send report to: Kelsey Brooks
Address: 6701 Aberdeen, Suite 9 Lubbock, TX 79424
Phone:
E-Mail: kelsey.brooks@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
578785-001	S	N @ 6"	03/07/18 08:55	SW8015B_DROORO	DRO-ORO By SW8015B	03/12/18	03/21/18	KEB	PHCC10C28 PHCC28C35	
578785-002	S	E @ 6"	03/07/18 09:00	SW8015B_DROORO	DRO-ORO By SW8015B	03/12/18	03/21/18	KEB	PHCC10C28 PHCC28C35	
578785-003	S	S @ 6"	03/07/18 09:05	SW8015B_DROORO	DRO-ORO By SW8015B	03/12/18	03/21/18	KEB	PHCC10C28 PHCC28C35	
578785-004	S	W @ 6"	03/07/18 09:10	SW8015B_DROORO	DRO-ORO By SW8015B	03/12/18	03/21/18	KEB	PHCC10C28 PHCC28C35	
578785-005	S	SP-1 @ Surface	03/07/18 09:15	SW8015B_DROORO	DRO-ORO By SW8015B	03/12/18	03/21/18	KEB	PHCC10C28 PHCC28C35	
578785-006	S	SP-1 @ 6"	03/07/18 09:20	SW8015B_DROORO	DRO-ORO By SW8015B	03/12/18	03/21/18	KEB	PHCC10C28 PHCC28C35	

Inter Office Shipment or Sample Comments:

Relinquished By: Brenda Ward
Brenda Ward

Date Relinquished: 03/09/2018

Received By:
Jean Quila

Date Received: 03/10/2018 09:00

Cooler Temperature: 1.5

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 1057351

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : hou068

Sent By: Brenda Ward **Date Sent:** 03/09/2018 03:34 PM

Received By: Jean Quila **Date Received:** 03/10/2018 09:00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.5	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 03/10/2018

Jean Quila

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 03/08/2018 05:45:00 PM

Work Order #: 578785

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)?	1.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**Yes**
#18 Water 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: 03/09/2018
Brenda Ward

Checklist reviewed by: Kelsey Brooks Date: 03/12/2018
Kelsey Brooks

Analytical Report 582357

for

TRC Solutions, Inc

Project Manager: Joel Lowry

Albatross State

18-APR-18

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-24), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

18-APR-18

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

Reference: XENCO Report No(s): **582357**
Albatross State
Project Address: Eddy Co, 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) 582357. 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. 582357 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 582357

TRC Solutions, Inc, Midland, TX

Albatross State

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1 @3 '	S	04-10-18 09:00	3 - feet	582357-001
SP-2@4'	S	04-10-18 09:20	4 - feet	582357-002
N-2 @1 '	S	04-10-18 09:40	1 - feet	582357-003
S-2 @1 '	S	04-10-18 10:00	1 - feet	582357-004
E-2 @1 '	S	04-10-18 10:20	1 - feet	582357-005
W-2 @1 '	S	04-10-18 10:40	1 - feet	582357-006

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3046901 Chloride by EPA 300
Lab Sample ID 582357-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Chloride recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference.
Samples in the analytical batch are: 582357-001, -002, -003, -004, -005, -006.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3047041 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: 582357-004.

Batch: LBA-3047044 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 582357

TRC Solutions, Inc, Midland, TX

Project Name: Albatross State

Project Id:

Contact: Joel Lowry

Project Location: Eddy Co, NM

Date Received in Lab: Thu Apr-12-18 02:12 pm

Report Date: 18-APR-18

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	582357-001		582357-002		582357-003		582357-004		582357-005		582357-006	
	Field Id:	SP-1 @3 '		SP-2@4'		N-2 @1 '		S-2 @1 '		E-2 @1 '		W-2 @1 '	
	Depth:	3-feet		4-feet		1-feet		1-feet		1-feet		1-feet	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-10-18 09:00		Apr-10-18 09:20		Apr-10-18 09:40		Apr-10-18 10:00		Apr-10-18 10:20		Apr-10-18 10:40	
BTEX by EPA 8021B	***Extracted:***	Apr-17-18 11:00		Apr-17-18 11:00		Apr-17-18 11:00		Apr-17-18 11:00		Apr-17-18 11:00		Apr-17-18 11:00	
	Analyzed:	Apr-18-18 03:07		Apr-17-18 23:57		Apr-18-18 03:34		Apr-18-18 04:01		Apr-18-18 04:28		Apr-18-18 04:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0191	0.0191	<0.0180	0.0180	<0.0198	0.0198	<0.0195	0.0195	<0.0191	0.0191	<0.0193	0.0193
Toluene		<0.0191	0.0191	<0.0180	0.0180	<0.0198	0.0198	<0.0195	0.0195	<0.0191	0.0191	<0.0193	0.0193
Ethylbenzene		<0.0191	0.0191	<0.0180	0.0180	<0.0198	0.0198	<0.0195	0.0195	<0.0191	0.0191	<0.0193	0.0193
m,p-Xylenes		<0.0382	0.0382	<0.0360	0.0360	<0.0397	0.0397	<0.0389	0.0389	<0.0382	0.0382	<0.0386	0.0386
o-Xylene		<0.0191	0.0191	<0.0180	0.0180	<0.0198	0.0198	<0.0195	0.0195	<0.0191	0.0191	<0.0193	0.0193
Total Xylenes		<0.0191	0.0191	<0.018	0.018	<0.0198	0.0198	<0.0195	0.0195	<0.0191	0.0191	<0.0193	0.0193
Total BTEX		<0.0191	0.0191	<0.018	0.018	<0.0198	0.0198	<0.0195	0.0195	<0.0191	0.0191	<0.0193	0.0193
Chloride by EPA 300	***Extracted:***	Apr-16-18 12:30		Apr-16-18 12:30		Apr-16-18 12:30		Apr-16-18 12:30		Apr-16-18 12:30		Apr-16-18 12:30	
	Analyzed:	Apr-17-18 10:08		Apr-17-18 10:21		Apr-17-18 12:13		Apr-17-18 11:23		Apr-17-18 11:35		Apr-17-18 12:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		350	50.0	325	25.0	<25.0	25.0	670	125	115	50.0	135	125
DRO-ORO By SW8015B	***Extracted:***	Apr-16-18 12:00		Apr-16-18 12:00		Apr-16-18 12:00		Apr-16-18 12:00		Apr-16-18 12:00		Apr-16-18 12:00	
	Analyzed:	Apr-17-18 04:58		Apr-17-18 06:42		Apr-17-18 07:17		Apr-17-18 07:51		Apr-17-18 08:26		Apr-17-18 09:01	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Diesel Range Organics (DRO)		<25.2	25.2	<25.0	25.0	<24.9	24.9	740	25.1	<25.0	25.0	<24.9	24.9
Oil Range Hydrocarbons (ORO)		<25.2	25.2	<25.0	25.0	<24.9	24.9	136	25.1	<25.0	25.0	<24.9	24.9
TPH GRO by EPA 8015 Mod.	***Extracted:***	Apr-17-18 11:00		Apr-17-18 11:00		Apr-17-18 11:00		Apr-17-18 11:00		Apr-17-18 11:00		Apr-17-18 11:00	
	Analyzed:	Apr-18-18 03:07		Apr-17-18 23:57		Apr-18-18 03:34		Apr-18-18 04:01		Apr-18-18 04:28		Apr-18-18 04:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
TPH-GRO		<3.82	3.82	<3.60	3.60	<3.97	3.97	<3.89	3.89	<3.82	3.82	<3.86	3.86

Kelsey Brooks
Project Manager

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: Albatross State

Work Orders : 582357,

Project ID:

Lab Batch #: 3047041 **Sample:** 582357-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/17/18 04:58

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	10.5	10.1	104	65-144	
n-Triacontane	9.19	10.1	91	46-152	

Lab Batch #: 3047041 **Sample:** 582357-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/17/18 06:42

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	10.3	9.98	103	65-144	
n-Triacontane	8.96	9.98	90	46-152	

Lab Batch #: 3047041 **Sample:** 582357-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/17/18 07:17

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	10.1	9.97	101	65-144	
n-Triacontane	8.82	9.97	88	46-152	

Lab Batch #: 3047041 **Sample:** 582357-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/17/18 07:51

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	47.7	10.1	472	65-144	**
n-Triacontane	28.9	10.1	286	46-152	**

Lab Batch #: 3047041 **Sample:** 582357-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/17/18 08:26

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	10.4	9.99	104	65-144	
n-Triacontane	9.92	9.99	99	46-152	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Albatross State

Work Orders : 582357,

Project ID:

Lab Batch #: 3047041 **Sample:** 582357-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/17/18 09:01

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	10.3	9.96	103	65-144	
n-Triacontane	9.35	9.96	94	46-152	

Lab Batch #: 3047044 **Sample:** 582357-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/17/18 23:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.104	0.100	104	68-120	
a,a,a-Trifluorotoluene	1.87	1.80	104	71-121	

Lab Batch #: 3047047 **Sample:** 582357-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/17/18 23:57

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.102	0.100	102	76-123	
a,a,a-Trifluorotoluene	1.61	1.80	89	69-120	

Lab Batch #: 3047044 **Sample:** 582357-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 03:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.102	0.100	102	68-120	
a,a,a-Trifluorotoluene	1.99	1.91	104	71-121	

Lab Batch #: 3047047 **Sample:** 582357-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 03:07

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.104	0.100	104	76-123	
a,a,a-Trifluorotoluene	1.73	1.91	91	69-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Albatross State

Work Orders : 582357,

Project ID:

Lab Batch #: 3047044 **Sample:** 582357-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 03:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0979	0.100	98	68-120	
a,a,a-Trifluorotoluene	2.12	1.98	107	71-121	

Lab Batch #: 3047047 **Sample:** 582357-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 03:34

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod.

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0966	0.100	97	76-123	
a,a,a-Trifluorotoluene	1.84	1.98	93	69-120	

Lab Batch #: 3047044 **Sample:** 582357-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 04:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0994	0.100	99	68-120	
a,a,a-Trifluorotoluene	1.96	1.95	101	71-121	

Lab Batch #: 3047047 **Sample:** 582357-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 04:01

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod.

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.103	0.100	103	76-123	
a,a,a-Trifluorotoluene	1.78	1.95	91	69-120	

Lab Batch #: 3047044 **Sample:** 582357-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 04:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.101	0.100	101	68-120	
a,a,a-Trifluorotoluene	1.97	1.91	103	71-121	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Albatross State

Work Orders : 582357,

Project ID:

Lab Batch #: 3047047 **Sample:** 582357-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 04:28

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod.

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0992	0.100	99	76-123	
a,a,a-Trifluorotoluene	1.74	1.91	91	69-120	

Lab Batch #: 3047044 **Sample:** 582357-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 04:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0975	0.100	98	68-120	
a,a,a-Trifluorotoluene	1.96	1.93	102	71-121	

Lab Batch #: 3047047 **Sample:** 582357-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 04:55

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod.

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0956	0.100	96	76-123	
a,a,a-Trifluorotoluene	1.71	1.93	89	69-120	

Lab Batch #: 3047041 **Sample:** 7642690-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/17/18 03:14

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	10.1	10.0	101	65-144	
n-Triacontane	9.40	10.0	94	46-152	

Lab Batch #: 3047044 **Sample:** 7642835-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/17/18 23:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0876	0.100	88	68-120	
a,a,a-Trifluorotoluene	1.87	2.00	94	71-121	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Albatross State

Work Orders : 582357,

Project ID:

Lab Batch #: 3047047 **Sample:** 7642836-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/17/18 23:30

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0873	0.100	87	76-123	
a,a,a-Trifluorotoluene	2.29	2.00	115	69-120	

Lab Batch #: 3047041 **Sample:** 7642690-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/17/18 03:49

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	9.67	10.0	97	65-144	
n-Triacontane	8.26	10.0	83	46-152	

Lab Batch #: 3047044 **Sample:** 7642835-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/17/18 20:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0867	0.100	87	68-120	
a,a,a-Trifluorotoluene	1.64	2.00	82	71-121	

Lab Batch #: 3047047 **Sample:** 7642836-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/17/18 21:41

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0927	0.100	93	76-123	
a,a,a-Trifluorotoluene	1.69	2.00	85	69-120	

Lab Batch #: 3047041 **Sample:** 7642690-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/17/18 04:23

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	9.93	10.0	99	65-144	
n-Triacontane	8.21	10.0	82	46-152	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Albatross State

Work Orders : 582357,

Project ID:

Lab Batch #: 3047044 **Sample:** 7642835-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/17/18 21:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0866	0.100	87	68-120	
a,a,a-Trifluorotoluene	1.63	2.00	82	71-121	

Lab Batch #: 3047047 **Sample:** 7642836-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/17/18 22:08

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0946	0.100	95	76-123	
a,a,a-Trifluorotoluene	1.62	2.00	81	69-120	

Lab Batch #: 3047041 **Sample:** 582357-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/17/18 05:33

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	11.3	9.97	113	65-144	
n-Triacontane	9.31	9.97	93	46-152	

Lab Batch #: 3047044 **Sample:** 582357-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 00:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0955	0.100	96	68-120	
a,a,a-Trifluorotoluene	1.89	1.97	96	71-121	

Lab Batch #: 3047047 **Sample:** 582357-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 01:18

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.101	0.100	101	76-123	
a,a,a-Trifluorotoluene	1.47	1.96	75	69-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Albatross State

Work Orders : 582357,

Project ID:

Lab Batch #: 3047041 **Sample:** 582357-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/17/18 06:08

SURROGATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Tricosane	11.3	10.0	113	65-144	
n-Triacontane	8.94	10.0	89	46-152	

Lab Batch #: 3047044 **Sample:** 582357-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 00:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0934	0.100	93	68-120	
a,a,a-Trifluorotoluene	1.81	1.90	95	71-121	

Lab Batch #: 3047047 **Sample:** 582357-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/18 01:45

SURROGATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.102	0.100	102	76-123	
a,a,a-Trifluorotoluene	1.51	1.95	77	69-120	

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

BS / BSD Recoveries

Project Name: Albatross State

Work Order #: 582357 **Project ID:**

Analyst: MIT **Date Prepared:** 04/17/2018 **Date Analyzed:** 04/17/2018

Lab Batch ID: 3047044 **Sample:** 7642835-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.0200	2.00	2.25	113	2.00	2.24	112	0	55-120	20	
Toluene	<0.0200	2.00	2.17	109	2.00	2.17	109	0	77-120	20	
Ethylbenzene	<0.0200	2.00	2.17	109	2.00	2.18	109	0	77-120	20	
m,p-Xylenes	<0.0400	4.00	4.36	109	4.00	4.42	111	1	78-120	20	
o-Xylene	<0.0200	2.00	2.17	109	2.00	2.17	109	0	78-120	20	

Analyst: RNL **Date Prepared:** 04/16/2018 **Date Analyzed:** 04/17/2018

Lab Batch ID: 3046901 **Sample:** 7642786-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<25.0	250	251	100	250	249	100	1	90-110	20	

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

BS / BSD Recoveries

Project Name: Albatross State

Work Order #: 582357 **Project ID:**

Analyst: PGM **Date Prepared:** 04/16/2018 **Date Analyzed:** 04/17/2018

Lab Batch ID: 3047041 **Sample:** 7642690-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Diesel Range Organics (DRO)	<25.0	100	72.3	72	100	74.5	75	3	63-139	20	

Analyst: MIT **Date Prepared:** 04/17/2018 **Date Analyzed:** 04/17/2018

Lab Batch ID: 3047047 **Sample:** 7642836-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH-GRO	<4.00	20.0	17.8	89	20.0	19.9	100	11	35-129	20	

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

Form 3 - MS / MSD Recoveries

Project Name: Albatross State

Work Order # : 582357 **Project ID:**

Lab Batch ID: 3047044 **QC- Sample ID:** 582357-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/18/2018 **Date Prepared:** 04/17/2018 **Analyst:** MIT

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.0197	1.97	2.21	112	1.90	2.08	109	6	54-120	25	
Toluene	<0.0197	1.97	2.27	115	1.90	2.12	112	7	57-120	25	
Ethylbenzene	<0.0197	1.97	2.35	119	1.90	2.22	117	6	58-131	25	
m,p-Xylenes	<0.0394	3.94	4.65	118	3.80	4.41	116	5	62-124	25	
o-Xylene	<0.0197	1.97	2.31	117	1.90	2.18	115	6	62-124	25	

Lab Batch ID: 3046901 **QC- Sample ID:** 582136-008 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/17/2018 **Date Prepared:** 04/16/2018 **Analyst:** RNL

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	3880	250	3880	0	250	4100	88	6	80-120	20	X

Lab Batch ID: 3046901 **QC- Sample ID:** 582357-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/17/2018 **Date Prepared:** 04/16/2018 **Analyst:** RNL

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	325	250	510	74	250	550	90	8	80-120	20	X

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

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

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

Form 3 - MS / MSD Recoveries

Project Name: Albatross State

Work Order # : 582357 **Project ID:**

Lab Batch ID: 3047041 **QC- Sample ID:** 582357-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/17/2018 **Date Prepared:** 04/16/2018 **Analyst:** PGM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

DRO-ORO By SW8015B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Diesel Range Organics (DRO)	<24.9	99.7	78.6	79	100	77.1	77	2	63-139	20	

Lab Batch ID: 3047047 **QC- Sample ID:** 582357-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/18/2018 **Date Prepared:** 04/17/2018 **Analyst:** MIT

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH GRO by EPA 8015 Mod. Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH-GRO	<3.92	19.6	10.3	53	19.5	11.4	58	10	35-129	20	

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

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

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

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES
Setting the Standard since 1990
Stafford,Texas (281-240-4200)
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San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

Xenco Job # 582357

Client / Reporting Information

Company Name / Branch: TRC Environmental Corporation
Company Address: 2057 Commerce Drive, Midland, TX 79703
Email: jlowry@trcsolutions.com
Phone No: 432-466-4460
Project Contact: Joel Lowry
Samplers's Name Joel Lowry

Project Information

Project Name/Number: Albatross State
Number: 299901
Project Location: Eddy Co, NM
Invoice To: COG Operating, LLC C/O Becky Haskell
Invoice:

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 Wate
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	SP-1 @3'	3'	4/10/2018	9:00	S	1									X	X	X	
2	SP2 @1'	4'	~~4/10/2018~~ 4/10/18	9:20	S	1									X	X	X	
3	N-2 @1'	1'	~~4/12/2018~~	9:40	S	1									X	X	X	
4	S-2 @ 1'	1'	~~4/13/2018~~	10:00	S	1									X	X	X	
5	E-2 @1'	1'	~~4/14/2018~~	10:20	S	1									X	X	X	
6	W-2 @1'	1'	~~4/15/2018~~	10:40	S	1									X	X	X	
7															X	X	X	
8																		
9																		
10																		

Turnaround Time (Business days)

Data Deliverable Information

Notes:

- [ ] 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

- [ ] 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

jlowry@trcsolutions.com
rhaskell@concho.com
zconder@trcsolution.com

FED-EX / UPS: Tracking #

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

Relinquished by Sampler: 1	Date Time: 4.12.18 14:12	Received By: 1	Relinquished By: 2	Date Time:	Received By: 2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # / Preserved where applicable	On Ice	Cooler Temp. 1.3 Therm. Corr. Factor 0.0

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 04/12/2018 02:12:00 PM

Work Order #: 582357

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

Temperature Measuring device used : IR3

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water 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: Ashley Derstine Date: 04/13/2018

Checklist reviewed by: Holly Taylor Date: 04/16/2018

Analytical Report 593218

for

TRC Solutions, Inc

Project Manager: Joel Lowry

ALBATROSS

30-JUL-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

30-JUL-18

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

Reference: XENCO Report No(s): **593218**
ALBATROSS
Project Address: Lea Co., 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) 593218. 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. 593218 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 593218

TRC Solutions, Inc, Midland, TX

ALBATROSS

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1 SSW-1	S	07-19-18 09:00	1.5 ft	593218-001
SP-1 SSW-2	S	07-19-18 09:10	1.5 ft	593218-002
SP-1 SSW-3	S	07-19-18 09:20	1.5 ft	593218-003
SP-1 ESW-1	S	07-19-18 09:30	1.5 ft	593218-004
SP-1 ESW-2	S	07-19-18 09:40	1.5 ft	593218-005
SP-1 WSW	S	07-19-18 09:50	1.5 ft	593218-006
SP-1 FL-1	S	07-19-18 10:00	3.5 ft	593218-007
SP-1 FL-2	S	07-19-18 10:10	3.5 ft	593218-008
SP-FL-3	S	07-19-18 10:20	3.5 ft	593218-009
SP-1 NSW-1	S	07-19-18 10:30	1.5 ft	593218-010
SP-1 NSW-2	S	07-19-18 10:40	1.5 ft	593218-011
SP-1 NSW-3	S	07-19-18 10:50	1.5 ft	593218-012
SP-ESW	S	07-19-18 12:10	2 ft	593218-013
SP-2 FL @ 4'	S	07-19-18 12:00	4 ft	593218-014
SP-2 NSW	S	07-19-18 12:20	2 ft	593218-015
SP-2 WSW	S	07-19-18 12:30	2 ft	593218-016
SP-2 SSW	S	07-19-18 12:40	3 ft	593218-017

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3057911 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3057926 BTEX by EPA 8021B
Lab Sample ID 593218-013 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 593218-001, -002, -003, -004, -005, -006, -008, -009, -010, -011, -012, -013.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, o-Xylene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3058037 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 593218

TRC Solutions, Inc, Midland, TX

Project Name: ALBATROSS

Project Id:
Contact: Joel Lowry
Project Location: Lea Co., NM

Date Received in Lab: Sat Jul-21-18 09:00 am
Report Date: 30-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	593218-001		593218-002		593218-003		593218-004		593218-005		593218-006	
	Field Id:	SP-1 SSW-1		SP-1 SSW-2		SP-1 SSW-3		SP-1 ESW-1		SP-1 ESW-2		SP-1 WSW	
	Depth:	1.5- ft		1.5- ft		1.5- ft		1.5- ft		1.5- ft		1.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-19-18 09:00		Jul-19-18 09:10		Jul-19-18 09:20		Jul-19-18 09:30		Jul-19-18 09:40		Jul-19-18 09:50	
BTEX by EPA 8021B	***Extracted:***	Jul-26-18 16:30		Jul-26-18 16:30		Jul-26-18 16:30		Jul-26-18 16:30		Jul-26-18 16:30		Jul-26-18 16:30	
	Analyzed:	Jul-27-18 05:51		Jul-27-18 06:12		Jul-27-18 03:07		Jul-27-18 00:23		Jul-27-18 00:44		Jul-27-18 01:04	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Toluene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Ethylbenzene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
m,p-Xylenes		<0.00404	0.00404	<0.00398	0.00398	<0.00399	0.00399	<0.00400	0.00400	<0.00402	0.00402	<0.00404	0.00404
o-Xylene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Total Xylenes		<0.00202	0.00202	<0.00199	0.00199	<0.002	0.002	<0.002	0.002	<0.00201	0.00201	<0.00202	0.00202
Total BTEX		<0.00202	0.00202	<0.00199	0.00199	<0.002	0.002	<0.002	0.002	<0.00201	0.00201	<0.00202	0.00202
Chloride by EPA 300	***Extracted:***	Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45	
	Analyzed:	Jul-26-18 20:18		Jul-26-18 20:34		Jul-26-18 20:39		Jul-26-18 20:45		Jul-26-18 20:50		Jul-26-18 21:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		351	5.05	364	4.95	270	4.95	200	4.97	259	4.95	574	24.8
TPH by SW8015 Mod	***Extracted:***	Jul-24-18 07:00		Jul-24-18 07:00		Jul-24-18 07:00		Jul-24-18 07:00		Jul-24-18 07:00		Jul-24-18 07:00	
	Analyzed:	Jul-24-18 09:27		Jul-24-18 10:25		Jul-24-18 10:45		Jul-24-18 11:05		Jul-24-18 11:24		Jul-24-18 11:43	
	Units/RL:	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	<14.9	14.9
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Total TPH		<15	15	<15	15	<15	15	<15	15	<15	15	<14.9	14.9

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 593218

TRC Solutions, Inc, Midland, TX

Project Name: ALBATROSS

Project Id:
Contact: Joel Lowry
Project Location: Lea Co., NM

Date Received in Lab: Sat Jul-21-18 09:00 am
Report Date: 30-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	593218-007		593218-008		593218-009		593218-010		593218-011		593218-012	
	Field Id:	SP-1 FL-1		SP-1 FL-2		SP-FL-3		SP-1 NSW-1		SP-1 NSW-2		SP-1 NSW-3	
	Depth:	3.5- ft		3.5- ft		3.5- ft		1.5- ft		1.5- ft		1.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-19-18 10:00		Jul-19-18 10:10		Jul-19-18 10:20		Jul-19-18 10:30		Jul-19-18 10:40		Jul-19-18 10:50	
BTEX by EPA 8021B	***Extracted:***	Jul-25-18 18:00		Jul-26-18 16:30		Jul-26-18 16:30		Jul-26-18 16:30		Jul-26-18 16:30		Jul-26-18 16:30	
	Analyzed:	Jul-26-18 09:34		Jul-27-18 01:25		Jul-27-18 01:45		Jul-27-18 02:06		Jul-27-18 02:26		Jul-27-18 02:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398	<0.00402	0.00402	<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399
o-Xylene		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.002	0.002	<0.00199	0.00199	<0.002	0.002
Total BTEX		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.002	0.002	<0.00199	0.00199	<0.002	0.002
Chloride by EPA 300	***Extracted:***	Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45	
	Analyzed:	Jul-26-18 21:12		Jul-26-18 21:17		Jul-26-18 21:22		Jul-26-18 21:28		Jul-26-18 21:33		Jul-26-18 21:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		198	4.99	225	5.00	236	5.04	256	5.01	202	5.01	198	5.02
TPH by SW8015 Mod	***Extracted:***	Jul-24-18 07:00		Jul-24-18 07:00		Jul-24-18 07:00		Jul-24-18 07:00		Jul-24-18 07:00		Jul-23-18 11:00	
	Analyzed:	Jul-24-18 12:03		Jul-24-18 12:22		Jul-24-18 12:42		Jul-24-18 13:01		Jul-24-18 13:21		Jul-23-18 19:00	
	Units/RL:	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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	30.7	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15	15	<14.9	14.9	<15	15	30.7	15	<15	15	<15	15

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 593218

TRC Solutions, Inc, Midland, TX

Project Name: ALBATROSS

Project Id:
Contact: Joel Lowry
Project Location: Lea Co., NM

Date Received in Lab: Sat Jul-21-18 09:00 am
Report Date: 30-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	593218-013		593218-014		593218-015		593218-016		593218-017	
	Field Id:	SP-ESW		SP-2 FL @ 4'		SP-2 NSW		SP-2 WSW		SP-2 SSW	
	Depth:	2- ft		4- ft		2- ft		2- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-19-18 12:10		Jul-19-18 12:00		Jul-19-18 12:20		Jul-19-18 12:30		Jul-19-18 12:40	
BTEX by EPA 8021B	***Extracted:***	Jul-26-18 16:30		Jul-27-18 10:00		Jul-27-18 10:00		Jul-27-18 10:00		Jul-27-18 10:00	
	Analyzed:	Jul-27-18 00:02		Jul-27-18 12:27		Jul-27-18 12:47		Jul-27-18 13:07		Jul-27-18 13:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
m,p-Xylenes		<0.00399	0.00399	<0.00402	0.00402	<0.00398	0.00398	<0.00400	0.00400	<0.00403	0.00403
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Total Xylenes		<0.002	0.002	<0.00201	0.00201	<0.00199	0.00199	<0.002	0.002	<0.00202	0.00202
Total BTEX		<0.002	0.002	<0.00201	0.00201	<0.00199	0.00199	<0.002	0.002	<0.00202	0.00202
Chloride by EPA 300	***Extracted:***	Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45		Jul-26-18 16:45	
	Analyzed:	Jul-26-18 21:55		Jul-26-18 22:11		Jul-26-18 22:17		Jul-26-18 22:22		Jul-26-18 22:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		421	5.02	172	5.01	21.4	4.95	586	5.04	46.4	5.01
TPH by SW8015 Mod	***Extracted:***	Jul-23-18 11:00		Jul-23-18 11:00		Jul-23-18 11:00		Jul-23-18 11:00		Jul-23-18 11:00	
	Analyzed:	Jul-23-18 19:20		Jul-23-18 19:40		Jul-23-18 20:00		Jul-23-18 20:20		Jul-23-18 20:40	
	Units/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
Diesel Range Organics (DRO)		33.5	15.0	77.9	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		33.5	15	77.9	15	<15	15	<15	15	<15	15

Kelsey Brooks
Project Manager

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057442 **Sample:** 593218-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/23/18 19:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.6	99.8	95	70-135	
o-Terphenyl	48.2	49.9	97	70-135	

Lab Batch #: 3057442 **Sample:** 593218-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/23/18 19:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.0	100	92	70-135	
o-Terphenyl	47.8	50.0	96	70-135	

Lab Batch #: 3057442 **Sample:** 593218-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/23/18 19:40

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.2	99.8	91	70-135	
o-Terphenyl	47.6	49.9	95	70-135	

Lab Batch #: 3057442 **Sample:** 593218-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/23/18 20:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	99.7	94	70-135	
o-Terphenyl	48.5	49.9	97	70-135	

Lab Batch #: 3057442 **Sample:** 593218-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/23/18 20:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.9	100	70-135	
o-Terphenyl	51.3	50.0	103	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057442 **Sample:** 593218-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/23/18 20:40

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.8	99.9	92	70-135	
o-Terphenyl	46.9	50.0	94	70-135	

Lab Batch #: 3057652 **Sample:** 593218-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 09:27

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.6	99.8	97	70-135	
o-Terphenyl	47.3	49.9	95	70-135	

Lab Batch #: 3057652 **Sample:** 593218-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 10:25

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	99.9	96	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 3057652 **Sample:** 593218-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 10:45

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	99.9	96	70-135	
o-Terphenyl	48.7	50.0	97	70-135	

Lab Batch #: 3057652 **Sample:** 593218-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 11:05

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.7	103	70-135	
o-Terphenyl	51.5	49.9	103	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057652 **Sample:** 593218-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 11:24

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	100	96	70-135	
o-Terphenyl	47.6	50.0	95	70-135	

Lab Batch #: 3057652 **Sample:** 593218-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 11:43

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.8	99.6	97	70-135	
o-Terphenyl	48.6	49.8	98	70-135	

Lab Batch #: 3057652 **Sample:** 593218-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 12:03

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.7	99.8	97	70-135	
o-Terphenyl	48.0	49.9	96	70-135	

Lab Batch #: 3057652 **Sample:** 593218-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 12:22

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.8	99.6	93	70-135	
o-Terphenyl	46.4	49.8	93	70-135	

Lab Batch #: 3057652 **Sample:** 593218-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 12:42

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.3	99.7	97	70-135	
o-Terphenyl	49.0	49.9	98	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057652 **Sample:** 593218-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 13:01

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.9	102	70-135	
o-Terphenyl	52.0	50.0	104	70-135	

Lab Batch #: 3057652 **Sample:** 593218-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 13:21

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.2	99.8	95	70-135	
o-Terphenyl	49.1	49.9	98	70-135	

Lab Batch #: 3057911 **Sample:** 593218-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/26/18 09:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	70-130	
4-Bromofluorobenzene	0.0261	0.0300	87	70-130	

Lab Batch #: 3057926 **Sample:** 593218-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 00:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0339	0.0300	113	70-130	
4-Bromofluorobenzene	0.0268	0.0300	89	70-130	

Lab Batch #: 3057926 **Sample:** 593218-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 00:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	70-130	
4-Bromofluorobenzene	0.0261	0.0300	87	70-130	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057926 **Sample:** 593218-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 00:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	70-130	
4-Bromofluorobenzene	0.0256	0.0300	85	70-130	

Lab Batch #: 3057926 **Sample:** 593218-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 01:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	70-130	
4-Bromofluorobenzene	0.0253	0.0300	84	70-130	

Lab Batch #: 3057926 **Sample:** 593218-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 01:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	70-130	
4-Bromofluorobenzene	0.0260	0.0300	87	70-130	

Lab Batch #: 3057926 **Sample:** 593218-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 01:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0319	0.0300	106	70-130	
4-Bromofluorobenzene	0.0259	0.0300	86	70-130	

Lab Batch #: 3057926 **Sample:** 593218-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 02:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	70-130	
4-Bromofluorobenzene	0.0256	0.0300	85	70-130	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057926 **Sample:** 593218-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 02:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	70-130	
4-Bromofluorobenzene	0.0253	0.0300	84	70-130	

Lab Batch #: 3057926 **Sample:** 593218-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 02:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0263	0.0300	88	70-130	

Lab Batch #: 3057926 **Sample:** 593218-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 03:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	70-130	
4-Bromofluorobenzene	0.0263	0.0300	88	70-130	

Lab Batch #: 3057926 **Sample:** 593218-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 05:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	70-130	
4-Bromofluorobenzene	0.0274	0.0300	91	70-130	

Lab Batch #: 3057926 **Sample:** 593218-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 06:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	70-130	
4-Bromofluorobenzene	0.0273	0.0300	91	70-130	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3058037 **Sample:** 593218-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 12:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	70-130	
4-Bromofluorobenzene	0.0272	0.0300	91	70-130	

Lab Batch #: 3058037 **Sample:** 593218-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 12:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	70-130	
4-Bromofluorobenzene	0.0266	0.0300	89	70-130	

Lab Batch #: 3058037 **Sample:** 593218-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 13:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	70-130	
4-Bromofluorobenzene	0.0271	0.0300	90	70-130	

Lab Batch #: 3058037 **Sample:** 593218-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 13:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0332	0.0300	111	70-130	
4-Bromofluorobenzene	0.0277	0.0300	92	70-130	

Lab Batch #: 3057442 **Sample:** 7658951-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/23/18 12:02

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	100	107	70-135	
o-Terphenyl	56.3	50.0	113	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057652 **Sample:** 7659050-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/24/18 08:29

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.2	100	94	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

Lab Batch #: 3057911 **Sample:** 7659186-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/26/18 08:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	70-130	
4-Bromofluorobenzene	0.0273	0.0300	91	70-130	

Lab Batch #: 3057926 **Sample:** 7659207-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/26/18 23:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	70-130	
4-Bromofluorobenzene	0.0264	0.0300	88	70-130	

Lab Batch #: 3058037 **Sample:** 7659257-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/27/18 12:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	70-130	
4-Bromofluorobenzene	0.0251	0.0300	84	70-130	

Lab Batch #: 3057442 **Sample:** 7658951-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/23/18 12:21

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	57.0	50.0	114	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057652 **Sample:** 7659050-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/24/18 08:48

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	53.4	50.0	107	70-135	

Lab Batch #: 3057911 **Sample:** 7659186-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/26/18 06:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	70-130	
4-Bromofluorobenzene	0.0258	0.0300	86	70-130	

Lab Batch #: 3057926 **Sample:** 7659207-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/26/18 22:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0332	0.0300	111	70-130	
4-Bromofluorobenzene	0.0236	0.0300	79	70-130	

Lab Batch #: 3058037 **Sample:** 7659257-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/27/18 10:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0345	0.0300	115	70-130	
4-Bromofluorobenzene	0.0253	0.0300	84	70-130	

Lab Batch #: 3057442 **Sample:** 7658951-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/23/18 12:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	58.7	50.0	117	70-135	

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057652 **Sample:** 7659050-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/24/18 09:08

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	52.8	50.0	106	70-135	

Lab Batch #: 3057911 **Sample:** 7659186-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/26/18 06:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	70-130	
4-Bromofluorobenzene	0.0280	0.0300	93	70-130	

Lab Batch #: 3057926 **Sample:** 7659207-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/26/18 22:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	70-130	
4-Bromofluorobenzene	0.0251	0.0300	84	70-130	

Lab Batch #: 3058037 **Sample:** 7659257-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/27/18 10:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0330	0.0300	110	70-130	
4-Bromofluorobenzene	0.0249	0.0300	83	70-130	

Lab Batch #: 3057442 **Sample:** 593216-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/23/18 13:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.8	119	70-135	
o-Terphenyl	50.8	49.9	102	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057652 **Sample:** 593218-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 09:47

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.7	119	70-135	
o-Terphenyl	51.2	49.9	103	70-135	

Lab Batch #: 3057911 **Sample:** 593218-007 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/26/18 07:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	70-130	
4-Bromofluorobenzene	0.0265	0.0300	88	70-130	

Lab Batch #: 3057926 **Sample:** 593218-013 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/26/18 23:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0382	0.0300	127	70-130	
4-Bromofluorobenzene	0.0274	0.0300	91	70-130	

Lab Batch #: 3058037 **Sample:** 593218-014 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 11:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	70-130	
4-Bromofluorobenzene	0.0260	0.0300	87	70-130	

Lab Batch #: 3057442 **Sample:** 593216-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/23/18 13:40

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.9	117	70-135	
o-Terphenyl	48.7	50.0	97	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: ALBATROSS

Work Orders : 593218,

Project ID:

Lab Batch #: 3057652 **Sample:** 593218-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/24/18 10:06

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	99.8	115	70-135	
o-Terphenyl	50.8	49.9	102	70-135	

Lab Batch #: 3057911 **Sample:** 593218-007 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/26/18 07:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0319	0.0300	106	70-130	
4-Bromofluorobenzene	0.0255	0.0300	85	70-130	

Lab Batch #: 3057926 **Sample:** 593218-013 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 07:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	70-130	
4-Bromofluorobenzene	0.0253	0.0300	84	70-130	

Lab Batch #: 3058037 **Sample:** 593218-014 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/27/18 11:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0327	0.0300	109	70-130	
4-Bromofluorobenzene	0.0252	0.0300	84	70-130	

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

BS / BSD Recoveries

Project Name: ALBATROSS

Work Order #: 593218 **Project ID:**

Analyst: ALJ **Date Prepared:** 07/25/2018 **Date Analyzed:** 07/26/2018

Lab Batch ID: 3057911 **Sample:** 7659186-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0957	95	0.100	0.0861	86	11	70-130	35	
Toluene	<0.00202	0.101	0.0936	93	0.100	0.0852	85	9	70-130	35	
Ethylbenzene	<0.00202	0.101	0.102	101	0.100	0.0943	94	8	70-130	35	
m,p-Xylenes	<0.00403	0.202	0.200	99	0.201	0.186	93	7	70-130	35	
o-Xylene	<0.00202	0.101	0.0991	98	0.100	0.0947	95	5	70-130	35	

Analyst: ALJ **Date Prepared:** 07/26/2018 **Date Analyzed:** 07/26/2018

Lab Batch ID: 3057926 **Sample:** 7659207-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00201	0.100	0.0880	88	0.101	0.0916	91	4	70-130	35	
Toluene	<0.00201	0.100	0.0881	88	0.101	0.0879	87	0	70-130	35	
Ethylbenzene	<0.00201	0.100	0.0968	97	0.101	0.0900	89	7	70-130	35	
m,p-Xylenes	<0.00402	0.201	0.191	95	0.202	0.175	87	9	70-130	35	
o-Xylene	<0.00201	0.100	0.0947	95	0.101	0.0873	86	8	70-130	35	

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

BS / BSD Recoveries

Project Name: ALBATROSS

Work Order #: 593218 **Project ID:**

Analyst: ALJ **Date Prepared:** 07/27/2018 **Date Analyzed:** 07/27/2018

Lab Batch ID: 3058037 **Sample:** 7659257-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.0998	0.0986	99	0.100	0.0964	96	2	70-130	35	
Toluene	<0.00200	0.0998	0.0989	99	0.100	0.0968	97	2	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.111	111	0.100	0.107	107	4	70-130	35	
m,p-Xylenes	<0.00399	0.200	0.220	110	0.200	0.213	107	3	70-130	35	
o-Xylene	<0.00200	0.0998	0.107	107	0.100	0.104	104	3	70-130	35	

Analyst: SCM **Date Prepared:** 07/26/2018 **Date Analyzed:** 07/26/2018

Lab Batch ID: 3057923 **Sample:** 7659200-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	265	106	250	253	101	5	90-110	20	

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

BS / BSD Recoveries

Project Name: ALBATROSS

Work Order #: 593218 **Project ID:**

Analyst: ARM **Date Prepared:** 07/23/2018 **Date Analyzed:** 07/23/2018

Lab Batch ID: 3057442 **Sample:** 7658951-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	936	94	1000	936	94	0	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	955	96	1000	959	96	0	70-135	20	

Analyst: ARM **Date Prepared:** 07/24/2018 **Date Analyzed:** 07/24/2018

Lab Batch ID: 3057652 **Sample:** 7659050-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	931	93	1000	948	95	2	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	940	94	1000	970	97	3	70-135	20	

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

Form 3 - MS / MSD Recoveries

Project Name: ALBATROSS

Work Order # : 593218 **Project ID:**

Lab Batch ID: 3057911 **QC- Sample ID:** 593218-007 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/26/2018 **Date Prepared:** 07/25/2018 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00199	0.0994	0.0838	84	0.100	0.0834	83	0	70-130	35	
Toluene	<0.00199	0.0994	0.0825	83	0.100	0.0818	82	1	70-130	35	
Ethylbenzene	<0.00199	0.0994	0.0914	92	0.100	0.0902	90	1	70-130	35	
m,p-Xylenes	<0.00398	0.199	0.180	90	0.200	0.176	88	2	70-130	35	
o-Xylene	<0.00199	0.0994	0.0893	90	0.100	0.0873	87	2	70-130	35	

Lab Batch ID: 3057926 **QC- Sample ID:** 593218-013 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/26/2018 **Date Prepared:** 07/26/2018 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00201	0.101	0.0674	67	0.101	0.0838	83	22	70-130	35	X
Toluene	<0.00201	0.101	0.0674	67	0.101	0.0960	95	35	70-130	35	X
Ethylbenzene	<0.00201	0.101	0.0706	70	0.101	0.0999	99	34	70-130	35	
m,p-Xylenes	<0.00402	0.201	0.138	69	0.202	0.181	90	27	70-130	35	X
o-Xylene	<0.00201	0.101	0.0701	69	0.101	0.0965	96	32	70-130	35	X

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

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

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

Form 3 - MS / MSD Recoveries

Project Name: ALBATROSS

Work Order # : 593218 **Project ID:**

Lab Batch ID: 3058037 **QC- Sample ID:** 593218-014 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/27/2018 **Date Prepared:** 07/27/2018 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00201	0.101	0.0923	91	0.0994	0.0853	86	8	70-130	35	
Toluene	<0.00201	0.101	0.0899	89	0.0994	0.0819	82	9	70-130	35	
Ethylbenzene	<0.00201	0.101	0.0959	95	0.0994	0.0857	86	11	70-130	35	
m,p-Xylenes	<0.00402	0.201	0.189	94	0.199	0.168	84	12	70-130	35	
o-Xylene	<0.00201	0.101	0.0920	91	0.0994	0.0827	83	11	70-130	35	

Lab Batch ID: 3057923 **QC- Sample ID:** 593218-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/26/2018 **Date Prepared:** 07/26/2018 **Analyst:** SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	351	253	595	96	253	596	97	0	90-110	20	

Lab Batch ID: 3057923 **QC- Sample ID:** 593218-011 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/26/2018 **Date Prepared:** 07/26/2018 **Analyst:** SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	202	251	447	98	251	459	102	3	90-110	20	

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

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

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

Form 3 - MS / MSD Recoveries

Project Name: ALBATROSS

Work Order # : 593218 **Project ID:**

Lab Batch ID: 3057442 **QC- Sample ID:** 593216-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/23/2018 **Date Prepared:** 07/23/2018 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	969	97	999	929	93	4	70-135	20	
Diesel Range Organics (DRO)	<15.0	998	1010	101	999	971	97	4	70-135	20	

Lab Batch ID: 3057652 **QC- Sample ID:** 593218-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/24/2018 **Date Prepared:** 07/24/2018 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	963	97	998	971	97	1	70-135	20	
Diesel Range Organics (DRO)	<15.0	997	998	100	998	1020	102	2	70-135	20	

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

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

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

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

XENCO Laboratories

☐ 4143 Greenbriar Drive, Stafford, TX 77477 **281-240-4200**
☐ 5332, Blackberry Drive, San Antonio, TX 78238 **210-509-3334**
☐ 9701 Harry Hines Blvd., Dallas, TX 75220 **214-902-0300**
☐ 12600 West I-20 East, Odessa, TX 79765 **432-563-1800**

Serial #: 330934 Page 1 of 2

Company-City / Phone: TRC [redacted] Solutions 432-686-4450

Lab Only: 593218

Project Name-Location ☐ Previously done at XENCO **Project ID:** ALBATROSS, LEA CO, NM

TAT: ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific.
It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Proj. State: TX, AL, FL, GA, LA, MS, NC, NJ, PA, SC, TN, UT Other

Proj. Manager (PM): JOEL LOWRY

E-mail Results to ☑PM and RHASKELL@CONCHO, FaxNo:COM
ZCOLDER@TRCSOLUTIONS, BCOOPER@TRCSOLUTIONS.COM

Invoice to ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O.

Bill to: COG OPERATING C/O RECKY HASKELL

Quote/Pricing: **P.O. No:** ☐ Call for P.O.

Reg Program: UST DRY-CLEAN Land-Fill Waste-Disp NPDES DW **TRRP**

QAPP Per-Contract CLP AGCEE NAVY DOE DOD USACE OTHER:

Special DLs (GW DW QAPP MDLs RLs See Lab PM Included Call PM)

Sampler Name: BECKY GRIFFIN **Signature:**

	Sample ID	Sampling Date	Time	Depth ft' in" m	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	VOA: Full-List BTEX-MTBE EtOH Oxyg VOHs VOAs	VOA: PP TCL DW Appdx-1 Appdx-2 CALL Other:	PAHs SIM 8310 8270	TX-1005 DRO GRO MA EPH MA VPH	SVOCs: Full-List DW BN&AE TCLP PP Appdx-2 CALL	OC Pesticides PCBs Herbicides OP Pesticides	Metals: RCRA-8 RCRA-4 Pb 13PP 23TAL Appdx 1 Appdx2	SPLP - TCLP (Metals VOCs SVOCs Pest. Herb. PCBs)	EDB / DBCP	TPH 8015 M EXT	CHLORIDE E 300	BTEX 8021B	TATASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d	Addn: PAH above mg/L W, mg/Kg S Highest Hit	Hold Samples (Surcharges will apply and are pre-approved)	Sample Clean-ups are pre-approved as needed	Addn: Date Rcv. by: From:
1	SP-1 SSW-1	7-19-18	9:00	1.5'	S			1			I										X	X	X					
2	SP-1 SSW-2	7-19-18	9:10	1.5'	S			1			I										X	X	X					
3	SP-1 SSW-3	7-19-18	9:20	1.5'	S			1			I										X	X	X					
4	SP-1 ESW-1	7-19-18	9:30	1.5	S			1			I										X	X	X					
5	SP-1 ESW-2	7-19-18	9:40	1.5'	S			1			I										X	X	X					
6	SP-1 WSW	7-19-18	9:50	1.5'	S			1			I										X	X	X					
7	SP-1 FL-1	7-19-18	10:00	3'	S			1			I										X	X	X					
8	SP-1 FL-2	7-19-18	10:10	3'	S			1			I										X	X	X					
9	SP-1 FL-3	7-19-18	10:20	3'	S			1			I										X	X	X					
10																												

	Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	1) Becky Griffin BC	7-20-18 11:25	2) Brittany Cox BC	7/20/18 11:25
2	3) Brittany Cox BC	7/20/18 11:50	4) [illegible]	7/21/18 1900
3	5)		6)	

Total Containers per COC: Cooler Temp: 4.0.6 °C

Otherwise agreed on writing. Reports are the Intellectual Property of XENCO until paid. Samples will be held 30 days after final report is e-mailed unless hereby requested. Rush Charges and Collection Fees are pre-approved if needed.

Preservatives: Various (**V**), HCl pH<2 (**H**), H2SO4 pH<2 (**S**), HNO3 pH<2 (**N**), Asbc Acid&NaOH (**A**), ZnAc&NaOH (**Z**), (Cool, <4C) (**C**), None (**NA**),See Label (**L**), Other (**O**) _____
Cont. Size: 4oz (**4**), 8oz (**8**), 32oz (**32**), 40ml VOA (**40**), 1L (**1**), 500ml (**5**), Tedlar Bag (**B**), Various (**V**), Other _____ **Cont. Type:** Glass Amb (**A**), Glass Clear (**C**), Plastic (**P**), Various (**V**)

Matrix: Air (**A**), Product (**P**), Solid (**S**), Water (**W**), Liquid (**L**)

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Notice: Signature of this document and relinquishment of these samples constitutes a valid purchase order from client company to Xenco Laboratories and its affiliates, subcontractors and assigns under Xenco's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Final 1.000

XENCO Laboratories

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

☐ 4143 Greenbriar Drive, Stafford, TX 77477 **281-240-4200**
☐ 5332, Blackberry Drive, San Antonio, TX 78238 **210-509-3334**
☐ 9701 Harry Hines Blvd., Dallas, TX 75220 **214-902-0300**
☐ 12600 West I-20 East, Odessa, TX 79765 **432-563-1800**

Serial #: 330935 Page 2 of 2

Company-City: TRC SOLUTIONS **Phone:** 432-466-4450

Lab Only: 593218

Project Name-Location: ALBATROSS ☑ Previously done at XENCO **Project ID:**

TAT: ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific. It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Proj. State: TX, AL, FL, GA, LA, MS, NC, NJ, PA, SC, TN, UT Other **Proj. Manager (PM):** JOEL LOWRY

E-mail Results to ☑ PM and BCOOPER@TRCSOLUTIONS.COM 2CONNER@TRCSOLUTIONS.COM RHASKELL@CONCHO.COM

Invoice to ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O.

Bill to: CDG OPERATING c/o BECKY HASKELL

Quote/Pricing: **P.O. No:** ☐ Call for P.O.

Reg Program: UST DRY-CLEAN Land-Fill Waste-Disp NPDES DW **TRRP** QAPP Per-Contract CLP AGCEE NAVY DOE DOD USACE OTHER:

Special DLs (GW DW QAPP MDLs RLs See Lab PM Included Call PM)

Sampler Name: BECKY GRIFFIN **Signature:** Becky Griffin

	Sample ID	Sampling Date	Time	Depth ft' In" m	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	VOA: Full-List BTEX-MTBE EtOH Oxyg VOHs VOAs	VOA: PP TCL DW Appdx-1 Appdx-2 CALL Other:	PAHs SIM 8310 8270	TX-1005 DRO GRO MA EPH MA VPH	SVOCs: Full-List DW BN&AE TCLP PP Appdx-2 CALL	OC Pesticides PCBs Herbicides OP Pesticides	Metals: RCRA-8 RCRA-4 Pb 13PP 23TAL Appdx 1 Appdx2	SPLP - TCLP (Metals VOCs SVOCs Pest. Herb. PCBs)	EDB / DBCP	TPH 8015 M EXT	CHLORIDE E 300	BTEX 8021B							TATASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d	Addn: PAH above mg/L W, mg/Kg S Highest Hit	Hold Samples (Surcharges will apply and are pre-approved)	Sample Clean-ups are pre-approved as needed			Addn: Date Rcv. by: From:	
1	SP-1 NSW-1	7-19-18	10:30	1.5	S			1			I										X	X	X														1
2	SP-1 NSW-2	7-19-18	10:40	1.5	S			1			I										X	X	X														2
3	SP-1 NSW-3	7-19-18	10:50	1.5	S			1			I										X	X	X														3
4	SP-2 ESW	7-19-18	12:10	2'	S			1			I										X	X	X														4
5	SP-2 FL@4'	7-19-18	12:00	4'	S			1			I										X	X	X														5
6	SP-2 NSW	7-19-18	12:20	2'	S			1			I										X	X	X														6
7	SP-2 WSW	7-19-18	12:30	2'	S			1			I										X	X	X														7
8	SP-2 SSW	7-19-18	12:40	3'	S			1			I										X	X	X														8
9																																					9
10																																					10

Remarks

	Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	1) Becky Griffin	7-20-18 11:28	2) Brittany Cox BC	7/20/18 11:28
2	3) Brittany Cox BC	7/20/18 11:50	4) [illegible]	7/21/18 [illegible]
3	5)		6)	

Total Containers per COC: Cooler Temp: 0.6°C

Otherwise agreed on writing. Reports are the Intellectual Property of XENCO until paid. Samples will be held 30 days after final report is e-mailed unless hereby requested. Rush Charges and Collection Fees are pre-approved if needed.

Preservatives: Various (**V**), HCl pH<2 (**H**), H2SO4 pH<2 (**S**), HNO3 pH<2 (**N**), Asbc Acid&NaOH (**A**), ZnAc&NaOH (**Z**), (Cool, <4C) (**C**), None (**NA**),See Label (**L**), Other (**O**)
Cont. Size: 4oz (**4**), 8oz (**8**), 32oz (**32**), 40ml VOA (**40**), 1L (**1**), 500ml (**5**), Tedlar Bag (**B**), Various (**V**), Other ______ **Cont. Type:** Glass Amb (**A**), Glass Clear (**C**), Plastic (**P**), Various (**V**)
Matrix: Air (**A**), Product (**P**), Solid (**S**), Water (**W**), Liquid (**L**)

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 07/21/2018 09:00:00 AM

Work Order #: 593218

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)?	.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water 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: Brianna Teel Date: 07/23/2018

Brianna Teel

Checklist reviewed by: Kelsey Brooks Date: 07/24/2018

Kelsey Brooks

Figure 1 - View of affected area prior to excavation activities, facing Northwest

Figure 2 - View of affected area after excavation activities, facing South

Figure 3 - View of affected area after excavation activities, facing Southeast

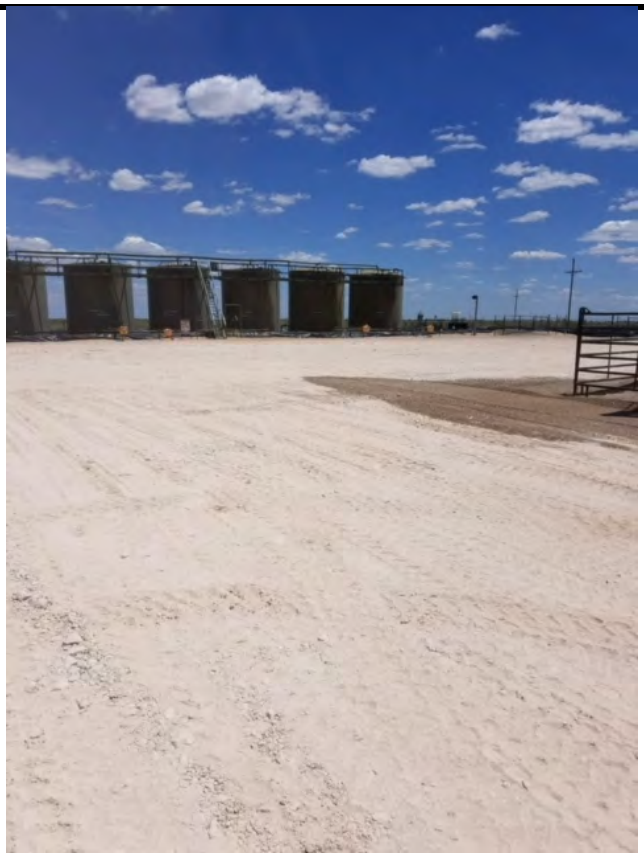

Figure 4 - View of affected area after remediation activites, facing Southeast

Figure 5 - View of affected area after remediation activites, facing East

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: **COG Operating, LLC** (OGRID# 229137)	Contact: **Robert McNeill**
Address: **600 West Illinois Avenue, Midland TX 79701**	Telephone No.: **432-683-7443**
Facility Name**: ALBATROSS STATE COM #002H**	Facility Type**: Wellhead**

Surface Owner: State	Mineral Owner: State	API No.: 30-25-41544

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	30	18S	35E	190	North	1989	East	Lea

Latitude: 32.725502 **Longitude**: -103.4947205 NAD83

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 10 bbls Oil	Volume Recovered: 7 bbls Oil
Source of Release: Wellhead	Date and Hour of Occurrence: 1-23-2018	Date and Hour of Discovery: 1-23-2018 9:00 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.*

RECEIVED
By Olivia Yu at 1:45 pm, Jan 26, 2018

Describe Cause of Problem and Remedial Action Taken.*
This release was caused by a valve that was in the wrong position. The valve was placed into the correct position.

Describe Area Affected and Cleanup Action Taken.*

This release remained on the well pad location. A vacuum truck was dispatched to recover all freestanding fluids. Concho will have the spill area evaluated for any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

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: Dakota Neel

Printed Name: Dakota Neel

Title: HSE Coordinator

E-mail Address dneel2@concho.com

Date: 1-24-2018 Phone: 575-746-2010

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 1/26/2018 Expiration Date:

Conditions of Approval:
see attached directive

Attached ☑

* Attach Additional Sheets If Necessary

1RP-4944 nOY1802649672

pOY1802650055

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _1/24/2018_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4944__ has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _2/26/2018_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), 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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