

# **Devon Energy Production Company Tomcat 16 State 13**

## **Closure Report U/L A, Section 16, T23S, R32E Lea County, New Mexico nKJ1601426766 pKJ1601427103 1RP-1405**

**May 4, 2021**



**Prepared for:**

**Devon Energy Production Company  
6488 Seven Rivers Hwy  
Artesia, New Mexico 88211**

**By:**

**Safety & Environmental Solutions, Inc.  
703 East Clinton Street  
Hobbs, New Mexico 88240**

## Company Contacts

Representative	Company	Telephone	E-mail
Amanda Davis	Devon Energy	575-748-0176	<a href="mailto:Amanda.Davis@dvn.com">Amanda.Davis@dvn.com</a>
Bob Allen	SESI	575-397-0510	<a href="mailto:ballen@sesi-nm.com">ballen@sesi-nm.com</a>

## Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Devon Energy in January of 2016 to perform a site assessment at the Tomcat 16 State 13 concerning an 87 bbls oil and produced water leak. According to the C-141, a stuffing box release caused a spill both on and off the pad. The well was shut in and a rod blow out preventer was screwed in to prevent further release. This site is situated in Lea County, Section 16, Township 23S, and Range 32E.

SESI personnel performed an assessment of the site in January 2016 based on generator knowledge of the leak location. SESI personnel mapped the leak and performed delineation. A delineation report and work plan were created by SESI and sent to NMOCD for approval. Kellie Jones of NMOCD approved the work plan on February 14, 2016. The approved work plan is attached to this report.

A review of open releases performed by Devon in early 2020 revealed that this release had never been closed. Therefore, Devon once again engaged SESI to re-assess the release area to determine if it had been in fact cleaned up properly. SESI dispatched a crew to re-delineate the site for further review.

## Surface and Ground Water

Based on the NMOCD Oil and Gas map included in this report, surface water, or remnants thereof, do not appear to be within 3000 feet of this release. The New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be between 425' and 450' bgs; however, since no wells less than 25 years old and less than a half mile away are known to be present, SESI will delineate this release to the most stringent criteria established by NMOCD.

## Characterization

In May of 2020, SESI performed an additional delineation on the release to assess if the spill had been properly cleaned up. Nine auger holes were advanced, properly preserved and packaged, and sent to Hall Environmental Labs for analyzation. The results of the delineation event are outlined in the table below:

Devon, Tomcat 16 State 13 Hall Environmental Labs: 5/5/20								
Sample Id	Chloride	DRO	MRO	GRO	Benzene	Toluene	Ethyl benzene	Total Xylenes
AH1 @ SURFACE	920	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AH1 @ 2'	130	ND	ND	ND	ND	ND	ND	ND
AH2 @ SURFACE	8800	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AH2 @ 2'	350	ND	ND	ND	ND	ND	ND	ND
AH3 @ SURFACE	360	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AH3 @ 1'	130	ND	ND	ND	ND	ND	ND	ND
AH4 @ SURFACE	5300	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AH4 @ 2'	330	ND	ND	ND	ND	ND	ND	ND
AH5 @ SURFACE	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AH5 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
AH6 @ SURFACE	270	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AH6 @ 1'	130	ND	ND	ND	ND	ND	ND	ND
AH7 @ SURFACE	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AH7 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
AH8 @ SURFACE	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AH8 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
AH9 @ SURFACE	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AH9 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND

Upon completion of the vertical delineation outlined above, it was realized that horizontal extent would also need to be achieved; therefore, SESI returned to the release site in June of 2020 and performed horizontal delineation. Twelve samples were obtained, preserved and packaged, and sent to Hall labs for testing. The results of the testing are outlined below:

Devon, Tomcat 16 State 13 Hall Environmental Labs: 6/2/20								
Sample Id	Chloride	DRO	MRO	GRO	Benzene	Toluene	Ethyl benzene	Total Xylenes
AH10-H WEST	ND	ND	ND	ND	ND	ND	ND	ND
AH11-H NORTH	ND	ND	ND	ND	ND	ND	ND	ND
AH12-H NORTH	450	ND	ND	ND	ND	ND	ND	ND
AH13-H NORTH	460	ND	ND	ND	ND	ND	ND	ND
AH14-H NORTH	360	ND	ND	ND	ND	ND	ND	ND
AH15-H NORTH	ND	13	ND	ND	ND	ND	ND	ND
AH16-H EAST	160	ND	ND	ND	ND	ND	ND	ND
AH17-H SOUTH	150	ND	ND	ND	ND	ND	ND	ND
AH18-H SOUTH	160	ND	ND	ND	ND	ND	ND	ND
AH19-H SOUTH	ND	ND	ND	ND	ND	ND	ND	ND
AH20-H SOUTH	ND	ND	ND	ND	ND	ND	ND	ND
AH21-H SOUTH	ND	ND	ND	ND	ND	ND	ND	ND

Due to both horizontal and vertical extent being achieved, SESI determined that although most of the remediation appeared to have been completed, additional remediation would need to be performed in the areas of AH1, AH2, and AH4.

## Remediation

Based on the findings of the sampling events, SESI, determined the best course of action was to excavate the contaminated soil to a depth of one and a half to two feet in the areas of AH1, AH2, and AH4. In March of 2021, approximately 350 yards of contaminated material were removed via shovel and backhoe. The contaminated soil was disposed of in a NMOCD-approved landfill.

Upon excavation completion, sixteen confirmation samples were taken to ensure successful remediation efforts had been completed. The samples were properly preserved and packaged then sent to Hall Laboratories for analyzation. The results of the sampling are captured in the table below.

Devon, Tomcat 16 State 13 Hall Environmental Labs: 3/8/21								
Sample Id	Chloride	DRO	MRO	GRO	Benzene	Toluene	Ethyl benzene	Total Xylenes
SP1 BTM 2'	ND	ND	ND	ND	ND	ND	ND	ND
SP2 BTM 1.5'	<b>64</b>	ND	ND	ND	ND	ND	ND	ND
SP3 BTM 1.5'	<b>63</b>	ND	ND	ND	ND	ND	ND	ND
SP4 BTM 1.5'	ND	ND	ND	ND	ND	ND	ND	ND
SP5 BTM 1.5'	ND	ND	ND	ND	ND	ND	ND	ND
SP6 BTM 1.5'	<b>150</b>	ND	ND	ND	ND	ND	ND	ND
SP7 BTM 1.5'	<b>150</b>	ND	ND	ND	ND	ND	ND	ND
SP8 BTM 1.5'	ND	ND	ND	ND	ND	ND	ND	ND
SP9 BTM 1.5'	ND	ND	ND	ND	ND	ND	ND	ND
SP10 N WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP11 N WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP12 N WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP13 E WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP14 S WALL	<b>62</b>	ND	ND	ND	ND	ND	ND	ND
SP15 W WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP16 S WALL	ND	ND	ND	ND	ND	ND	ND	ND

Once sample results verified successful remediation had been achieved, the site was backfilled with clean soil. Pictures of the remediation are included in this report.

### Closure Request

Based on the confirmation sample results, SESI believes the release area to be properly remediated according to the closure criteria set forth in Table I of the Spill Rule 19.15.29 NMAC. Therefore, SESI, on behalf of Devon respectfully requests closure of this release. Supplemental information has been included in this report to support our closure request.

### Supplemental Documentation for Closure

Approved Work Plan  
 Map of Release with confirmation sample locations  
 Photos of remediation  
 NMOCD Oil and Gas Map  
 BLM Cave Karst Map  
 FEMA Floodplain Map  
 Laboratory Analysis  
 C-141, page 6



# Devon, Tomcat 16 State 13

nKJ1601426766  
pKJ1601427103  
1RP-1405

## Legend

- 1.5 FT- 2FT EXCAVATION
- Confirmation samples
- Horizontal extent samples
- SPILL AREA
- Vertical extent samples





**REVIEWED**

By Kellie Jones at 1:53 pm, Feb 04, 2016

**APPROVED**

By Kellie Jones at 1:53 pm, Feb 04, 2016

1. No further action required.

# Devon Energy Production Co LP

Tomcat 16 State 13

## Delineation Report and Work Plan

Unit Letter A, Section 16, T23S, R32E  
Lea County, New Mexico

30-025-35411

January 28, 2016  
(Revised February 1, 2016)



Prepared for:

Devon Energy Production Co., LP  
PO Box 250  
Artesia, New Mexico 88211

By:

Safety & Environmental Solutions, Inc.  
703 East Clinton Street  
Hobbs, New Mexico 88240  
(575) 397-0510

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**Tomcat 16 State #13**  
**Devon Energy**

**Devon Energy Production**  
**Eddy County, New Mexico**

## I. Company Contacts

Representative	Company	Telephone	E-mail
Brett Fulks	Devon Energy Prod.	575-748-1844	Brett.Fulks@dvn.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

## II. Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Devon Energy to perform site delineation on the Tomcat 16 State #013, concerning a Seventy Five (75) bbl. release comprising of produced water. This site is situated in Eddy County, Section 16, Township 23S, and Range 32E.

According to the C-141: A cap detached from the stuffing box causing the unit to continually run. This resulted in a combined fluid loss of 87 Bbl. The fluid impacted the well pad, as well at the pasture area. The well was shut in, and the rod blow out preventer was screwed in, so that further release would be prevented. A vacuum truck was utilized to recover and remove more than half of the fluid. SESI was contacted to assess the site, whereby a Trimble Juno device was utilized to map the spill area. The total area of impact is estimated to be 13,462 sq. ft. The NMOCD was notified on January 11, 2016 and the C-141 filed and stamped by the same on January 14, 2016 assigning this event number **1RP-1405** (Appendix A).

## III. Surface and Ground Water

There is no record of groundwater in the immediate vicinity of the site location. According to the topography map for Lea County the depth to ground water for Section 16, Township 23S, Range 32E is approximately 450' bgs. Further research of the New Mexico Office of the State Engineer records indicate the average depth to groundwater for the area to be 519' bgs. Thereby, posing no eminent threat or danger to life forms in the area.

## IV. Characterization

The target cleanup levels are determined using the *Guidelines for Remediation of Leaks, Spills and Releases* published by the NMOCD (August 13, 1993). Based on the ranking criteria presented below, the applicable Recommended Remediation Action Levels (RRAL) are 10 parts per million (ppm) Benzene, 50 ppm combined benzene, toluene, ethyl benzene, and total xylenes (BTEX), and 5,000 ppm Total Petroleum Hydrocarbons (TPH). Characterization of vertical extent of chloride concentration to a level of 250 mg/kg (PPM) is also required.

Depth to Ground Water:			
(Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	20 points	
	50 feet to 99 feet	10 points	
	>100 feet	0 points	X
Wellhead Protection Area:			
(Less than 200 feet from a private domestic water source; or less than 1000 feet from all other water sources)	Yes	20 points	
	No	0 points	X
Distance to Surface Water:			

**Tomcat 16 State #13****Devon Energy****Devon Energy Production****Eddy County, New Mexico**

(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	20 points	
	200 feet to 1000 feet	10 points	
	>1000 feet	0 points	<b>X</b>
<b>RANKING SCORE (TOTAL POINTS)</b>			<b>0</b>

**V. Work Performed**

On January 14, 2016 SESI was onsite to photograph, assess and map the spill area.

On January 21, 2016 SESI personnel returned to the site, in order to conduct a vertical and horizontal delineation of the impacted area. Whereby, it was determined that Four (4) Test Trenches should be excavated in order to properly ascertain the vertical extent of the impact. Representative soil samples were properly packaged, preserved and transported to Cardinal Laboratories, Hobbs New Mexico and analyzed for BTEX (Method H600154-07), Chloride (Cl<sup>-</sup>) (Method SM 4500Cl-B), and TPH (GRO DRO) (Method 8015M). The results of the analysis are presented in the table below:

Sample Date 01/21/2016	BTEX	Chloride (mg/kg)	GRO	DRO
Depth				
TT-1 2'	<0.300	144	<10.0	<10.0
TT-1 3'	<0.300	128	<10.0	<10.0
TT-1 5'	<0.300	160	<10.0	<10.0
TT-2 5'	<0.300	672	<10.0	23.6
TT-3 5'	<0.300	624	<10.0	<10.0
TT-4 3'	<0.300	384	<10.0	<10.0
TT-4 5'	<0.300	144	<10.0	<10.0

Due to livestock presence in the area: Custom Welding of Hobbs removed oily surface residue as a preventative measure. There was approximately 40 yards of impacted soil stockpile that will be removed to an NMOCD approved facility.

**VI. Action Plan**

Due to the results listed above the following action plan is proposed:

Excavate and treat impacted soil 2' bgs., utilizing RX soil amendment. Discrete samples will be taken from the sides and bottom of the excavation area. The representative soil samples will be taken to a commercial laboratory for final analysis and confirmation. The excavated area will be lined with 20 mil. Liner, for in place treatment of impacted soil.

Upon completion of all approved remediation activity SESI will submit complete final closure documentation regarding this incident, on behalf of Devon Energy to all parties of concern.

**Tomcat 16 State #13**  
**Devon Energy**

**Devon Energy Production**  
**Eddy County, New Mexico**

**VII. Figures & Appendices**

Figure 1 – Vicinity Map

Figure 2 – Site Plan

Appendix A – C-141

Appendix B – Groundwater

Appendix C – Analytical Results

Appendix D – Photo Documentation

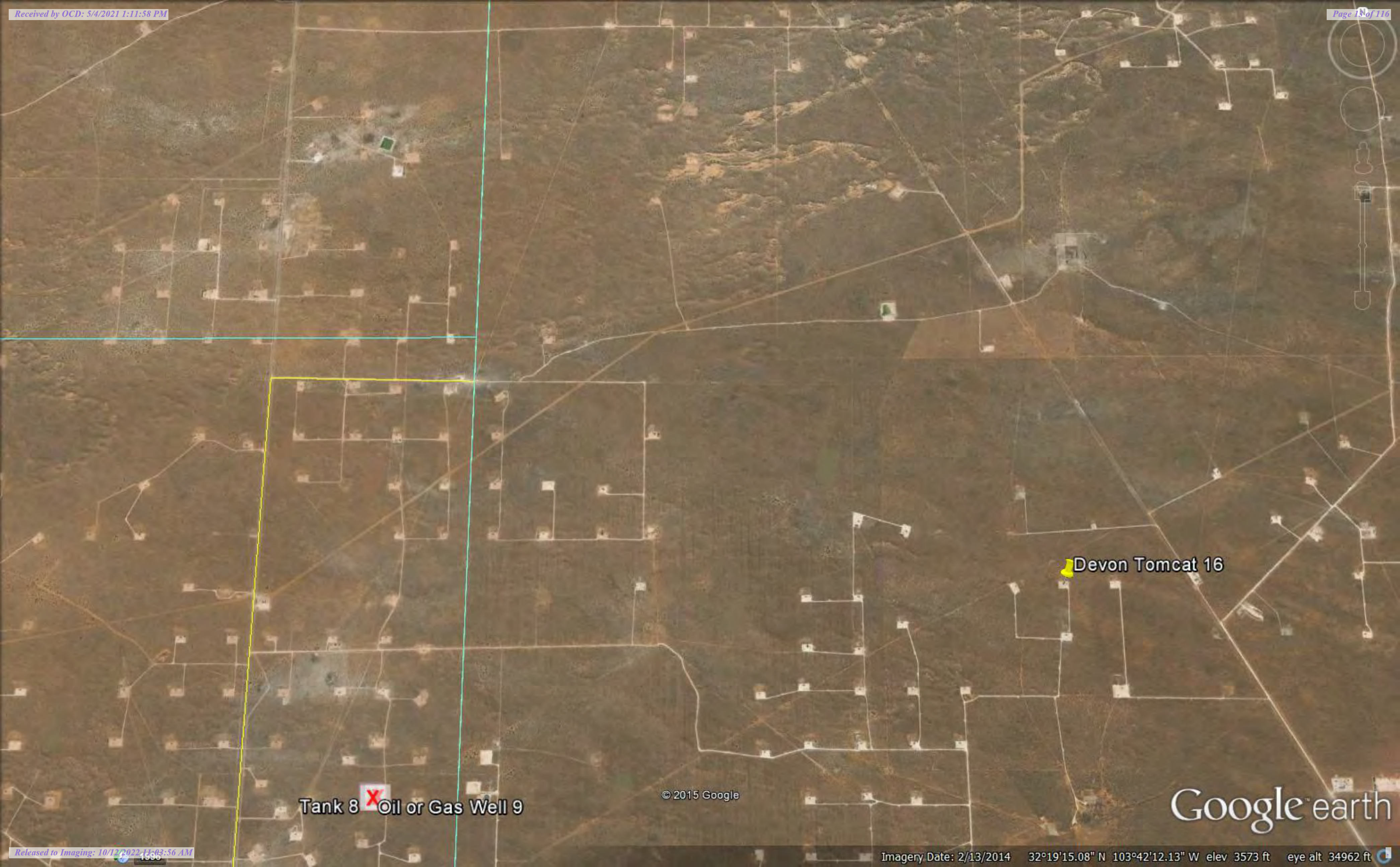
**Tomcat 16 State #13**  
**Devon Energy**

**Devon Energy Production**  
**Eddy County, New Mexico**


## **Figure 1**

### **Vicinity Map**





Devon Tomcat 16

Tank 8  Oil or Gas Well 9

© 2015 Google

Google earth



**Tomcat 16 State #13**  
**Devon Energy**

**Devon Energy Production**  
**Eddy County, New Mexico**

## **Figure 2**

## **Site Plan**





Google earth



**Tomcat 16 State #13**  
**January 15, 2016**

**Devon Energy Production**  
**Eddy County, New Mexico**

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## **Appendix A**

### **C-141**



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

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

Form C-141  
Revised August 8, 2011

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy Production	Contact Ruben Garcia Production Assistant Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88220	Telephone No. 575.748.5209
Facility Name Tomcat 16 State 13	Facility Type Oil
Surface Owner State	Mineral Owner State
API No. 30-025-35411	

#### LOCATION OF RELEASE

Unit Letter A	Section 16	Township 23S	Range 32E	Feet from the 660	North/South Line FNL	Feet from the 660	East/West Line FEL	County Lea
------------------	---------------	-----------------	--------------	----------------------	-------------------------	----------------------	-----------------------	---------------

Latitude: 32.302652 Longitude: -103.685551

#### NATURE OF RELEASE

Type of Release Spill Produced water & Oil	Volume of Release 50 BBL Produced water & 37 BBL Oil	Volume Recovered 42 BBL Produced water & 33 BBL Oil
Source of Release Stuffing box leak	Date and Hour of Occurrence 1/11/16 @ 11:30 am	Date and Hour of Discovery 1/11/16 @ 11:30 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD Thomas Oberdin OCD - Kellie Jones	
By Whom? Ruben Garcia Production Assistant Foreman	Date and Hour 1/11/16 @ 2:16 pm 1/13/16 @ 1:00 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		

#### Describe Cause of Problem and Remedial Action Taken.\*

The cap off the stuffing box broke off and unit continued to run. The well was shut in and rod blow out preventer was screwed in to prevent further release.

#### Describe Area Affected and Cleanup Action Taken.\*

An approximant total of 50 BBL of produced water was released and an approximant total of 37 BBL of oil was released. Approximately 42 BBL produced water recovered and approximately 33 BBL oil recovered. This incident is both on pad and off pad.  
On pad on a 189 x 93 area 6 BBL of produced water & 4 BBL of oil was released. 4 BBL produced water recovered and 3 BBL oil recovered. This took place on the east and west side of stuffing box.  
Off the pad on the north side on a 54 x 36 area 4 BBL of produced water & 3 BBL of oil was released. 2 BBL produced water recovered and 2 BBL oil recovered.  
Off the pad on the west side on a 138 x 180 area 40 BBL of produced water & 30 BBL of oil was released. 36 BBL produced water was recovered and 28 BBL of oil was recovered. A vacuum truck was called out for recovery and an environmental agency will be contacted for remediation.

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.

#### OIL CONSERVATION DIVISION

Signature: *Jeanette Barron*

Printed Name: Jeanette Barron

Approved by Environmental Specialist:

Title: Field Admin Support

Approval Date: 01/14/2016

Expiration Date: 03/14/2016

E-mail Address: Jeanette.barron@dvn.com

Conditions of Approval:  
Site samples required. Delineate and remediate as per MNOCD guides. Geotag photographs of remediation recommended.

Attached ☐  
1RP-1405

Date: 1/13/16 Phone: 575.748.1813

nKJ1601426766 pKJ1601427103

## **Appendix B Site Photographs**

Devon Energy  
Tomcat 16 State 13  
API 30-025-35411



Leak Source location 01-14-16



View looking North of pad area



View of pad looking Northwest



Spill run exiting West side of pad to pasture



Close up of soil impact



Pasture impact traversing west of pad area

**Tomcat 16 State #13**  
**January 28, 2016**

**Devon Energy Production**  
**Eddy County, New Mexico**

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## **Appendix C – Analytical Results**





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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January 27, 2016

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: TOMCAT 16 STATE #13

Enclosed are the results of analyses for samples received by the laboratory on 01/22/16 11:46.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	01/22/2016	Sampling Date:	01/21/2016
Reported:	01/27/2016	Sampling Type:	Soil
Project Name:	TOMCAT 16 STATE #13	Sampling Condition:	Cool & Intact
Project Number:	DEV-16-001	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: TT-1, 2' (H600154-01)**

BTX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/26/2016	ND	1.99	99.7	2.00	0.268	
Toluene*	<0.050	0.050	01/26/2016	ND	1.93	96.7	2.00	1.66	
Ethylbenzene*	<0.050	0.050	01/26/2016	ND	1.77	88.5	2.00	2.28	
Total Xylenes*	<0.150	0.150	01/26/2016	ND	5.43	90.5	6.00	2.12	
Total BTX	<0.300	0.300	01/26/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.6-140

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	01/25/2016	ND	432	108	400	3.77	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/25/2016	ND	201	101	200	0.838	
DRO >C10-C28	<10.0	10.0	01/25/2016	ND	187	93.6	200	1.58	

Surrogate: 1-Chlorooctane 84.5 % 35-147

Surrogate: 1-Chlorooctadecane 83.3 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	01/22/2016	Sampling Date:	01/21/2016
Reported:	01/27/2016	Sampling Type:	Soil
Project Name:	TOMCAT 16 STATE #13	Sampling Condition:	Cool & Intact
Project Number:	DEV-16-001	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: TT-1, 3' (H600154-02)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/26/2016	ND	1.99	99.7	2.00	0.268		
Toluene*	<0.050	0.050	01/26/2016	ND	1.93	96.7	2.00	1.66		
Ethylbenzene*	<0.050	0.050	01/26/2016	ND	1.77	88.5	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/26/2016	ND	5.43	90.5	6.00	2.12		
Total BTEx	<0.300	0.300	01/26/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	01/25/2016	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/25/2016	ND	201	101	200	0.838	
DRO >C10-C28	<10.0	10.0	01/25/2016	ND	187	93.6	200	1.58	

Surrogate: 1-Chlorooctane 77.5 % 35-147

Surrogate: 1-Chlorooctadecane 78.2 % 28-171

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	01/22/2016	Sampling Date:	01/21/2016
Reported:	01/27/2016	Sampling Type:	Soil
Project Name:	TOMCAT 16 STATE #13	Sampling Condition:	Cool & Intact
Project Number:	DEV-16-001	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: TT-1, 5' (H600154-03)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/26/2016	ND	1.99	99.7	2.00	0.268	
Toluene*	<0.050	0.050	01/26/2016	ND	1.93	96.7	2.00	1.66	
Ethylbenzene*	<0.050	0.050	01/26/2016	ND	1.77	88.5	2.00	2.28	
Total Xylenes*	<0.150	0.150	01/26/2016	ND	5.43	90.5	6.00	2.12	
Total BTEx	<0.300	0.300	01/26/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/25/2016	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/25/2016	ND	201	101	200	0.838	
DRO >C10-C28	<10.0	10.0	01/25/2016	ND	187	93.6	200	1.58	

Surrogate: 1-Chlorooctane 82.8 % 35-147

Surrogate: 1-Chlorooctadecane 85.1 % 28-171

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	01/22/2016	Sampling Date:	01/21/2016
Reported:	01/27/2016	Sampling Type:	Soil
Project Name:	TOMCAT 16 STATE #13	Sampling Condition:	Cool & Intact
Project Number:	DEV-16-001	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: TT-2, 5' (H600154-04)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/26/2016	ND	1.99	99.7	2.00	0.268		
Toluene*	<0.050	0.050	01/26/2016	ND	1.93	96.7	2.00	1.66		
Ethylbenzene*	<0.050	0.050	01/26/2016	ND	1.77	88.5	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/26/2016	ND	5.43	90.5	6.00	2.12		
Total BTEx	<0.300	0.300	01/26/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	01/25/2016	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/25/2016	ND	201	101	200	0.838	
DRO >C10-C28	23.6	10.0	01/25/2016	ND	187	93.6	200	1.58	

Surrogate: 1-Chlorooctane 81.6 % 35-147

Surrogate: 1-Chlorooctadecane 77.2 % 28-171

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	01/22/2016	Sampling Date:	01/21/2016
Reported:	01/27/2016	Sampling Type:	Soil
Project Name:	TOMCAT 16 STATE #13	Sampling Condition:	Cool & Intact
Project Number:	DEV-16-001	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: TT-3, 5' (H600154-05)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/26/2016	ND	1.99	99.7	2.00	0.268		
Toluene*	<0.050	0.050	01/26/2016	ND	1.93	96.7	2.00	1.66		
Ethylbenzene*	<0.050	0.050	01/26/2016	ND	1.77	88.5	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/26/2016	ND	5.43	90.5	6.00	2.12		
Total BTEx	<0.300	0.300	01/26/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	01/25/2016	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/25/2016	ND	201	101	200	0.838	
DRO >C10-C28	<10.0	10.0	01/25/2016	ND	187	93.6	200	1.58	

Surrogate: 1-Chlorooctane 80.3 % 35-147

Surrogate: 1-Chlorooctadecane 81.0 % 28-171

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received: 01/22/2016  
 Reported: 01/27/2016  
 Project Name: TOMCAT 16 STATE #13  
 Project Number: DEV-16-001  
 Project Location: LEA COUNTY, NM

Sampling Date: 01/21/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: TT-4, 3' (H600154-06)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/26/2016	ND	1.99	99.7	2.00	0.268		
Toluene*	<0.050	0.050	01/26/2016	ND	1.93	96.7	2.00	1.66		
Ethylbenzene*	<0.050	0.050	01/26/2016	ND	1.77	88.5	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/26/2016	ND	5.43	90.5	6.00	2.12		
Total BTEx	<0.300	0.300	01/26/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	01/25/2016	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/25/2016	ND	201	101	200	0.838	
DRO >C10-C28	<10.0	10.0	01/25/2016	ND	187	93.6	200	1.58	

Surrogate: 1-Chlorooctane 81.0 % 35-147

Surrogate: 1-Chlorooctadecane 80.0 % 28-171

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received: 01/22/2016  
 Reported: 01/27/2016  
 Project Name: TOMCAT 16 STATE #13  
 Project Number: DEV-16-001  
 Project Location: LEA COUNTY, NM

Sampling Date: 01/21/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: TT-4, 5' (H600154-07)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/26/2016	ND	1.99	99.7	2.00	0.268	
Toluene*	<0.050	0.050	01/26/2016	ND	1.93	96.7	2.00	1.66	
Ethylbenzene*	<0.050	0.050	01/26/2016	ND	1.77	88.5	2.00	2.28	
Total Xylenes*	<0.150	0.150	01/26/2016	ND	5.43	90.5	6.00	2.12	
Total BTEx	<0.300	0.300	01/26/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	01/25/2016	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/25/2016	ND	201	101	200	0.838	
DRO >C10-C28	<10.0	10.0	01/25/2016	ND	187	93.6	200	1.58	

Surrogate: 1-Chlorooctane 80.3 % 35-147

Surrogate: 1-Chlorooctadecane 78.9 % 28-171

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Celey D. Keene, Lab Director/Quality Manager





---

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---

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Cardinal Laboratories

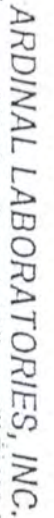
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A handwritten signature in black ink, appearing to read "C. D. Keene", written over a horizontal line.

---

Celey D. Keene, Lab Director/Quality Manager



2111 Beechwood, Abilene, TX 79663. 101 East Marland, Hobbs, NM 88240  
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page 1 of 1

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 10 of 10



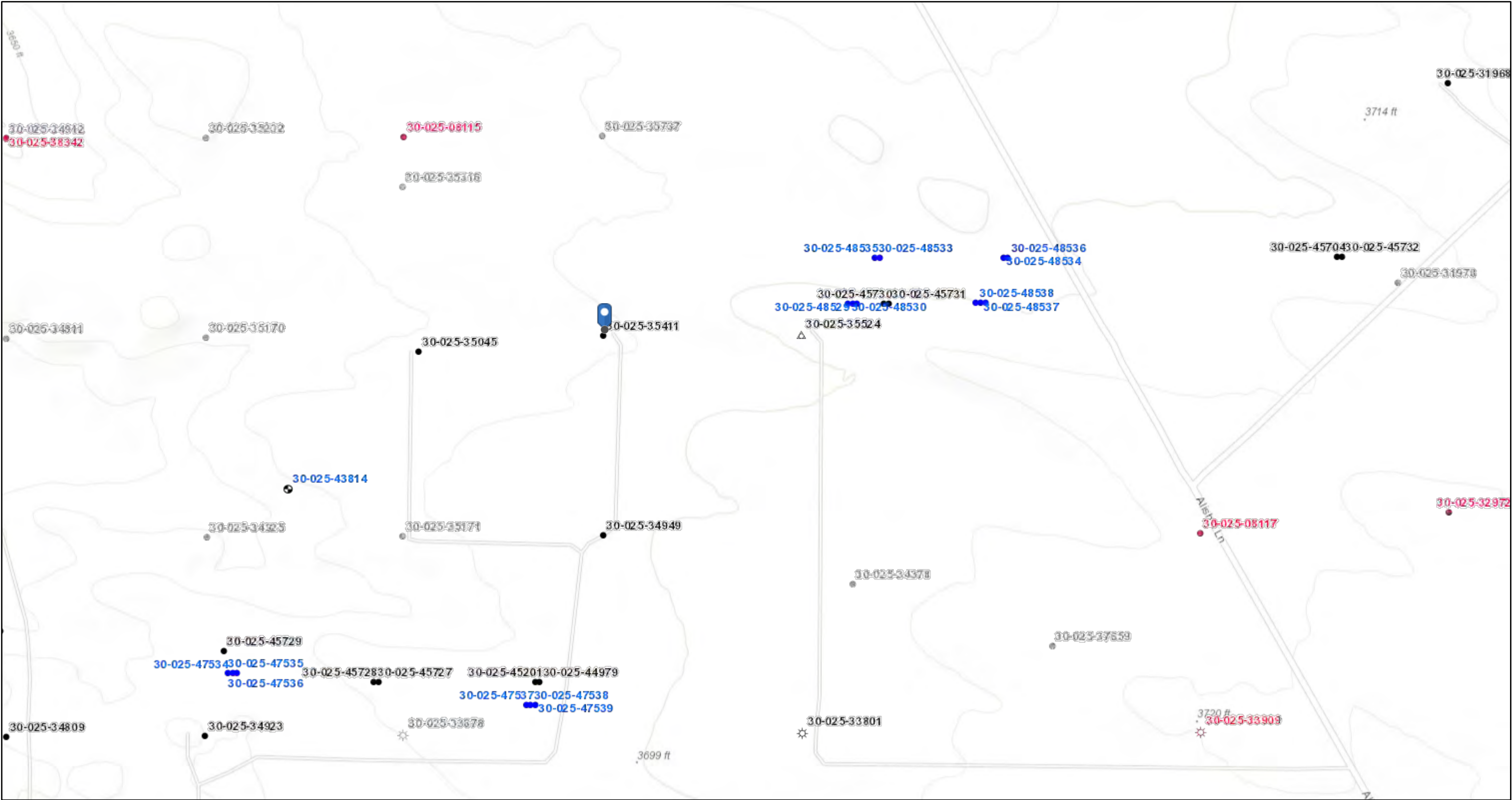








# Devon, Tomcat 16 State 13



5/4/2021, 8:34:49 AM

Wells - Large Scale

?

 undefined

●

 Miscellaneous

✱

 CO2, Active

✱

 CO2, Cancelled

✱

 CO2, New

✱

 CO2, Plugged

✱

 CO2, Temporarily Abandoned

✱

 Gas, Active

✱

 Gas, Cancelled

✱

 Gas, New

✱

 Gas, Plugged

✱

 Gas, Temporarily Abandoned

✱

 Injection, Active

✱

 Injection, Cancelled

✱

 Injection, New

✱

 Injection, Plugged

✱

 Injection, Temporarily Abandoned

●

 Oil, Active

●

 Oil, Cancelled

●

 Oil, New

●

 Oil, Plugged

●

 Oil, Temporarily Abandoned

△

 Salt Water Injection, Active

△

 Salt Water Injection, Cancelled

△

 Salt Water Injection, New

△

 Salt Water Injection, Plugged

△

 Salt Water Injection, Temporarily Abandoned

●

 Water, Active

●

 Water, Cancelled

●

 Water, New

●

 Water, Plugged

●

 Water, Temporarily Abandoned

★

 OCD District Offices

0 0.07 0.15 0.3 mi

0 0.15 0.3 0.6 km

Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., OCD

1:9,028

New Mexico Oil Conservation Division



NM OCD Oil and Gas Map. <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>: New Mexico Oil Conservation Division



# Devon, Tomcat 16 State 13

BLM Cave Karst Map  
nKJ1601426766  
pKJ1601427103  
1RP-1405

## Legend

-  Low potential
-  SPILL AREA

AH-7AH-9 AH-1

Google Earth



1 mi

# National Flood Hazard Layer FIRMette



103°40'42"W 32°18'52"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		Regulatory Floodway
		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
OTHER AREAS		Area with Flood Risk due to Levee Zone D
		NO SCREEN Area of Minimal Flood Hazard Zone X
GENERAL STRUCTURES		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
OTHER FEATURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
MAP PANELS		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/4/2021 at 10:45 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

May 13, 2020

Bob Allen  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 397-0510  
FAX (575) 393-4388

RE: Devon Tomcat 16 State 13

OrderNo.: 2005277

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 18 sample(s) on 5/7/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-1 Surface

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 9:20:00 AM

Lab ID: 2005277-001

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	920	60		mg/Kg	20	5/9/2020 5:53:57 PM	52365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 1 of 22

## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-1 2'

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 9:35:00 AM

Lab ID: 2005277-002

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	130	60		mg/Kg	20	5/9/2020 6:30:57 PM	52365
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/11/2020 6:54:05 PM	52347
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/11/2020 6:54:05 PM	52347
Surr: DNOP	92.0	55.1-146		%Rec	1	5/11/2020 6:54:05 PM	52347
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/10/2020 7:07:50 AM	52339
Surr: BFB	98.0	66.6-105		%Rec	1	5/10/2020 7:07:50 AM	52339
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/10/2020 7:07:50 AM	52339
Toluene	ND	0.049		mg/Kg	1	5/10/2020 7:07:50 AM	52339
Ethylbenzene	ND	0.049		mg/Kg	1	5/10/2020 7:07:50 AM	52339
Xylenes, Total	ND	0.098		mg/Kg	1	5/10/2020 7:07:50 AM	52339
Surr: 4-Bromofluorobenzene	94.0	80-120		%Rec	1	5/10/2020 7:07:50 AM	52339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-2 Surface

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 9:40:00 AM

Lab ID: 2005277-003

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	8800	600		mg/Kg	200	5/10/2020 7:05:47 PM	52365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-2 2'

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 10:00:00 AM

Lab ID: 2005277-004

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	350	60		mg/Kg	20	5/9/2020 6:55:38 PM	52365
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/11/2020 7:18:16 PM	52347
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/11/2020 7:18:16 PM	52347
Surr: DNOP	88.0	55.1-146		%Rec	1	5/11/2020 7:18:16 PM	52347
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/10/2020 7:31:28 AM	52339
Surr: BFB	94.8	66.6-105		%Rec	1	5/10/2020 7:31:28 AM	52339
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/10/2020 7:31:28 AM	52339
Toluene	ND	0.049		mg/Kg	1	5/10/2020 7:31:28 AM	52339
Ethylbenzene	ND	0.049		mg/Kg	1	5/10/2020 7:31:28 AM	52339
Xylenes, Total	ND	0.098		mg/Kg	1	5/10/2020 7:31:28 AM	52339
Surr: 4-Bromofluorobenzene	91.6	80-120		%Rec	1	5/10/2020 7:31:28 AM	52339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-3 Surface

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 10:05:00 AM

Lab ID: 2005277-005

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	360	60		mg/Kg	20	5/9/2020 7:07:59 PM	52365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-3 1'

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 10:15:00 AM

Lab ID: 2005277-006

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	130	59		mg/Kg	20	5/9/2020 7:20:20 PM	52365
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/11/2020 7:42:45 PM	52347
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/11/2020 7:42:45 PM	52347
Surr: DNOP	75.3	55.1-146		%Rec	1	5/11/2020 7:42:45 PM	52347
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/10/2020 7:55:05 AM	52339
Surr: BFB	95.9	66.6-105		%Rec	1	5/10/2020 7:55:05 AM	52339
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/10/2020 7:55:05 AM	52339
Toluene	ND	0.049		mg/Kg	1	5/10/2020 7:55:05 AM	52339
Ethylbenzene	ND	0.049		mg/Kg	1	5/10/2020 7:55:05 AM	52339
Xylenes, Total	ND	0.098		mg/Kg	1	5/10/2020 7:55:05 AM	52339
Surr: 4-Bromofluorobenzene	92.9	80-120		%Rec	1	5/10/2020 7:55:05 AM	52339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-4 Surface

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 10:30:00 AM

Lab ID: 2005277-007

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	5300	300		mg/Kg	100	5/10/2020 7:42:51 PM	52365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-4 2'

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 11:10:00 AM

Lab ID: 2005277-008

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	330	60		mg/Kg	20	5/9/2020 7:44:59 PM	52365
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/11/2020 8:06:50 PM	52347
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/11/2020 8:06:50 PM	52347
Surr: DNOP	78.9	55.1-146		%Rec	1	5/11/2020 8:06:50 PM	52347
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/10/2020 8:18:40 AM	52339
Surr: BFB	95.4	66.6-105		%Rec	1	5/10/2020 8:18:40 AM	52339
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/10/2020 8:18:40 AM	52339
Toluene	ND	0.048		mg/Kg	1	5/10/2020 8:18:40 AM	52339
Ethylbenzene	ND	0.048		mg/Kg	1	5/10/2020 8:18:40 AM	52339
Xylenes, Total	ND	0.096		mg/Kg	1	5/10/2020 8:18:40 AM	52339
Surr: 4-Bromofluorobenzene	91.2	80-120		%Rec	1	5/10/2020 8:18:40 AM	52339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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**Analytical Report**Lab Order **2005277**Date Reported: **5/13/2020****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** AH-5 Surface**Project:** Devon Tomcat 16 State 13**Collection Date:** 5/5/2020 11:30:00 AM**Lab ID:** 2005277-009**Matrix:** SOIL**Received Date:** 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	61		mg/Kg	20	5/9/2020 8:22:01 PM	52365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-5 1'

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 11:45:00 AM

Lab ID: 2005277-010

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/9/2020 8:34:22 PM	52365
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/11/2020 8:31:05 PM	52347
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/11/2020 8:31:05 PM	52347
Surr: DNOP	82.3	55.1-146		%Rec	1	5/11/2020 8:31:05 PM	52347
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/10/2020 8:42:18 AM	52339
Surr: BFB	95.4	66.6-105		%Rec	1	5/10/2020 8:42:18 AM	52339
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	5/10/2020 8:42:18 AM	52339
Toluene	ND	0.047		mg/Kg	1	5/10/2020 8:42:18 AM	52339
Ethylbenzene	ND	0.047		mg/Kg	1	5/10/2020 8:42:18 AM	52339
Xylenes, Total	ND	0.094		mg/Kg	1	5/10/2020 8:42:18 AM	52339
Surr: 4-Bromofluorobenzene	91.5	80-120		%Rec	1	5/10/2020 8:42:18 AM	52339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-6 Surface

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 12:20:00 PM

Lab ID: 2005277-011

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	270	59		mg/Kg	20	5/9/2020 8:46:42 PM	52365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-6 1'

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 12:35:00 PM

Lab ID: 2005277-012

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	130	60		mg/Kg	20	5/9/2020 8:59:03 PM	52365
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/11/2020 8:55:16 PM	52347
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/11/2020 8:55:16 PM	52347
Surr: DNOP	96.5	55.1-146		%Rec	1	5/11/2020 8:55:16 PM	52347
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/10/2020 9:05:58 AM	52339
Surr: BFB	97.2	66.6-105		%Rec	1	5/10/2020 9:05:58 AM	52339
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	5/10/2020 9:05:58 AM	52339
Toluene	ND	0.047		mg/Kg	1	5/10/2020 9:05:58 AM	52339
Ethylbenzene	ND	0.047		mg/Kg	1	5/10/2020 9:05:58 AM	52339
Xylenes, Total	ND	0.094		mg/Kg	1	5/10/2020 9:05:58 AM	52339
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	5/10/2020 9:05:58 AM	52339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-7 Surface

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 1:00:00 PM

Lab ID: 2005277-013

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	5/9/2020 9:11:23 PM	52365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-7 1'

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 1:15:00 PM

Lab ID: 2005277-014

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/9/2020 9:23:43 PM	52365
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/11/2020 9:19:33 PM	52347
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/11/2020 9:19:33 PM	52347
Surr: DNOP	85.2	55.1-146		%Rec	1	5/11/2020 9:19:33 PM	52347
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/10/2020 9:29:30 AM	52339
Surr: BFB	97.6	66.6-105		%Rec	1	5/10/2020 9:29:30 AM	52339
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/10/2020 9:29:30 AM	52339
Toluene	ND	0.048		mg/Kg	1	5/10/2020 9:29:30 AM	52339
Ethylbenzene	ND	0.048		mg/Kg	1	5/10/2020 9:29:30 AM	52339
Xylenes, Total	ND	0.097		mg/Kg	1	5/10/2020 9:29:30 AM	52339
Surr: 4-Bromofluorobenzene	95.1	80-120		%Rec	1	5/10/2020 9:29:30 AM	52339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-8 Surface

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 1:30:00 PM

Lab ID: 2005277-015

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	59		mg/Kg	20	5/9/2020 9:36:03 PM	52365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-8 1'

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 1:40:00 PM

Lab ID: 2005277-016

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/9/2020 9:48:23 PM	52365
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/11/2020 9:43:45 PM	52347
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/11/2020 9:43:45 PM	52347
Surr: DNOP	93.8	55.1-146		%Rec	1	5/11/2020 9:43:45 PM	52347
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/10/2020 9:52:50 AM	52339
Surr: BFB	98.0	66.6-105		%Rec	1	5/10/2020 9:52:50 AM	52339
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/10/2020 9:52:50 AM	52339
Toluene	ND	0.050		mg/Kg	1	5/10/2020 9:52:50 AM	52339
Ethylbenzene	ND	0.050		mg/Kg	1	5/10/2020 9:52:50 AM	52339
Xylenes, Total	ND	0.10		mg/Kg	1	5/10/2020 9:52:50 AM	52339
Surr: 4-Bromofluorobenzene	95.8	80-120		%Rec	1	5/10/2020 9:52:50 AM	52339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-9 Surface

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 1:50:00 PM

Lab ID: 2005277-017

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	61		mg/Kg	20	5/9/2020 10:00:44 PM	52365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 17 of 22

## Analytical Report

Lab Order 2005277

Date Reported: 5/13/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-9 1'

Project: Devon Tomcat 16 State 13

Collection Date: 5/5/2020 2:00:00 PM

Lab ID: 2005277-018

Matrix: SOIL

Received Date: 5/7/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/9/2020 10:13:04 PM	52365
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/11/2020 10:08:02 PM	52347
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/11/2020 10:08:02 PM	52347
Surr: DNOP	92.0	55.1-146		%Rec	1	5/11/2020 10:08:02 PM	52347
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/10/2020 10:16:17 AM	52339
Surr: BFB	98.4	66.6-105		%Rec	1	5/10/2020 10:16:17 AM	52339
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/10/2020 10:16:17 AM	52339
Toluene	ND	0.049		mg/Kg	1	5/10/2020 10:16:17 AM	52339
Ethylbenzene	ND	0.049		mg/Kg	1	5/10/2020 10:16:17 AM	52339
Xylenes, Total	ND	0.098		mg/Kg	1	5/10/2020 10:16:17 AM	52339
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	5/10/2020 10:16:17 AM	52339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2005277

13-May-20

**Client:** Safety & Environmental Solutions**Project:** Devon Tomcat 16 State 13

Sample ID: <b>MB-52365</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52365</b>	RunNo: <b>68777</b>								
Prep Date: <b>5/9/2020</b>	Analysis Date: <b>5/9/2020</b>	SeqNo: <b>2379987</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-52365</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52365</b>	RunNo: <b>68777</b>								
Prep Date: <b>5/9/2020</b>	Analysis Date: <b>5/9/2020</b>	SeqNo: <b>2379988</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2005277

13-May-20

**Client:** Safety & Environmental Solutions**Project:** Devon Tomcat 16 State 13

Sample ID: <b>LCS-52347</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>52347</b>		RunNo: <b>68785</b>							
Prep Date: <b>5/8/2020</b>	Analysis Date: <b>5/11/2020</b>		SeqNo: <b>2380866</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.0	70	130			
Surr: DNOP	4.0		5.000		80.4	55.1	146			

Sample ID: <b>MB-52347</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>52347</b>		RunNo: <b>68785</b>							
Prep Date: <b>5/8/2020</b>	Analysis Date: <b>5/11/2020</b>		SeqNo: <b>2380867</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		90.2	55.1	146			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2005277

13-May-20

**Client:** Safety & Environmental Solutions**Project:** Devon Tomcat 16 State 13

Sample ID: <b>ics-52339</b>	SampType: <b>LCS</b>				TestCode: <b>EPA Method 8015D: Gasoline Range</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>52339</b>				RunNo: <b>68773</b>					
Prep Date: <b>5/7/2020</b>	Analysis Date: <b>5/9/2020</b>				SeqNo: <b>2379667</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.4	80	120			
Surr: BFB	1100		1000		110	66.6	105			S

Sample ID: <b>mb-52339</b>	SampType: <b>MBLK</b>				TestCode: <b>EPA Method 8015D: Gasoline Range</b>					
Client ID: <b>PBS</b>	Batch ID: <b>52339</b>				RunNo: <b>68773</b>					
Prep Date: <b>5/7/2020</b>	Analysis Date: <b>5/9/2020</b>				SeqNo: <b>2379669</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	66.6	105			

Sample ID: <b>mb-52369</b>	SampType: <b>MBLK</b>				TestCode: <b>EPA Method 8015D: Gasoline Range</b>					
Client ID: <b>PBS</b>	Batch ID: <b>52369</b>				RunNo: <b>68802</b>					
Prep Date: <b>5/9/2020</b>	Analysis Date: <b>5/11/2020</b>				SeqNo: <b>2380989</b>	Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		98.2	66.6	105			

Sample ID: <b>ics-52369</b>	SampType: <b>LCS</b>				TestCode: <b>EPA Method 8015D: Gasoline Range</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>52369</b>				RunNo: <b>68802</b>					
Prep Date: <b>5/9/2020</b>	Analysis Date: <b>5/11/2020</b>				SeqNo: <b>2380990</b>	Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		106	66.6	105			S

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2005277

13-May-20

**Client:** Safety & Environmental Solutions**Project:** Devon Tomcat 16 State 13

Sample ID: <b>LCS-52339</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52339</b>	RunNo: <b>68773</b>								
Prep Date: <b>5/7/2020</b>	Analysis Date: <b>5/9/2020</b>	SeqNo: <b>2379751</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0	82.8	80	120			
Toluene	0.88	0.050	1.000	0	87.8	80	120			
Ethylbenzene	0.88	0.050	1.000	0	88.5	80	120			
Xylenes, Total	2.6	0.10	3.000	0	88.3	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		95.9	80	120			

Sample ID: <b>mb-52339</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52339</b>	RunNo: <b>68773</b>								
Prep Date: <b>5/7/2020</b>	Analysis Date: <b>5/9/2020</b>	SeqNo: <b>2379753</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		98.9	80	120			

Sample ID: <b>mb-52369</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52369</b>	RunNo: <b>68802</b>								
Prep Date: <b>5/9/2020</b>	Analysis Date: <b>5/11/2020</b>	SeqNo: <b>2381030</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.94		1.000		94.1	80	120			

Sample ID: <b>LCS-52369</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52369</b>	RunNo: <b>68802</b>								
Prep Date: <b>5/9/2020</b>	Analysis Date: <b>5/11/2020</b>	SeqNo: <b>2381031</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.94		1.000		93.8	80	120			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: **Safety Env Solutions**Work Order Number: **2005277**

RcptNo: 1

Received By: **Desiree Dominguez** 5/7/2020 9:15:00 AMCompleted By: **Desiree Dominguez** 5/7/2020 10:33:14 AMReviewed By: **DAD 5/7/20**

ID-3

ID-3

### Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4"$  for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

**IO  
5/7/20**

( $<2$  or  $>12$  unless noted)

Adjusted?

Checked by:

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good	Not Present			







**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

Project Manager:

Project Manager: Allen Bob

**Sampler:**

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF):  $0.3 + 0.0 = 0.3$  (°C)

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Container	Preservative	HEAL No.
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Type and #	Type
2005277	

1	100	1013
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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51021		
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-D17

810	-
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1	010
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[illegible][illegible]


[illegible][illegible]

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[illegible]

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Received by:                      Via:                      Date:                      Time:                     

11/10/85

Received by:                      Via:                      Date                      Time                     

1/4/3

07/17/20 4:20

contracted to other accredited laboratories. This serves as notice of this

Released to Imaging: 10/12/2022 11:03:56 AM

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

June 11, 2020

Bob Allen  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 397-0510  
FAX (575) 393-4388

RE: Devon Tomcat 16 State 13

OrderNo.: 2006230

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 12 sample(s) on 6/4/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-10-H West Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 9:50:00 AM

Lab ID: 2006230-001

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/10/2020 11:38:50 AM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/6/2020 3:49:20 PM	52911
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/6/2020 3:49:20 PM	52911
Surr: DNOP	92.3	55.1-146		%Rec	1	6/6/2020 3:49:20 PM	52911
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/6/2020 6:05:37 PM	52895
Surr: BFB	90.5	66.6-105		%Rec	1	6/6/2020 6:05:37 PM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/6/2020 6:05:37 PM	52895
Toluene	ND	0.050		mg/Kg	1	6/6/2020 6:05:37 PM	52895
Ethylbenzene	ND	0.050		mg/Kg	1	6/6/2020 6:05:37 PM	52895
Xylenes, Total	ND	0.099		mg/Kg	1	6/6/2020 6:05:37 PM	52895
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	6/6/2020 6:05:37 PM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-11-H North Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 10:15:00 AM

Lab ID: 2006230-002

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/10/2020 11:51:11 AM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/6/2020 4:14:08 PM	52911
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/6/2020 4:14:08 PM	52911
Surr: DNOP	86.0	55.1-146		%Rec	1	6/6/2020 4:14:08 PM	52911
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/6/2020 7:16:55 PM	52895
Surr: BFB	85.7	66.6-105		%Rec	1	6/6/2020 7:16:55 PM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/6/2020 7:16:55 PM	52895
Toluene	ND	0.049		mg/Kg	1	6/6/2020 7:16:55 PM	52895
Ethylbenzene	ND	0.049		mg/Kg	1	6/6/2020 7:16:55 PM	52895
Xylenes, Total	ND	0.097		mg/Kg	1	6/6/2020 7:16:55 PM	52895
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/6/2020 7:16:55 PM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-12-H North Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 10:35:00 AM

Lab ID: 2006230-003

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	450	60		mg/Kg	20	6/10/2020 12:03:31 PM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/6/2020 4:38:53 PM	52911
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/6/2020 4:38:53 PM	52911
Surr: DNOP	91.6	55.1-146		%Rec	1	6/6/2020 4:38:53 PM	52911
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/6/2020 8:27:44 PM	52895
Surr: BFB	84.8	66.6-105		%Rec	1	6/6/2020 8:27:44 PM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/6/2020 8:27:44 PM	52895
Toluene	ND	0.049		mg/Kg	1	6/6/2020 8:27:44 PM	52895
Ethylbenzene	ND	0.049		mg/Kg	1	6/6/2020 8:27:44 PM	52895
Xylenes, Total	ND	0.098		mg/Kg	1	6/6/2020 8:27:44 PM	52895
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/6/2020 8:27:44 PM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-13-H North Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 10:55:00 AM

Lab ID: 2006230-004

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	460	60		mg/Kg	20	6/10/2020 12:15:53 PM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/6/2020 5:03:41 PM	52911
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/6/2020 5:03:41 PM	52911
Surr: DNOP	75.5	55.1-146		%Rec	1	6/6/2020 5:03:41 PM	52911
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/6/2020 8:51:16 PM	52895
Surr: BFB	83.6	66.6-105		%Rec	1	6/6/2020 8:51:16 PM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/6/2020 8:51:16 PM	52895
Toluene	ND	0.049		mg/Kg	1	6/6/2020 8:51:16 PM	52895
Ethylbenzene	ND	0.049		mg/Kg	1	6/6/2020 8:51:16 PM	52895
Xylenes, Total	ND	0.099		mg/Kg	1	6/6/2020 8:51:16 PM	52895
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/6/2020 8:51:16 PM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-14-H North Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 11:10:00 AM

Lab ID: 2006230-005

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	360	60		mg/Kg	20	6/10/2020 12:28:14 PM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/6/2020 5:28:36 PM	52911
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/6/2020 5:28:36 PM	52911
Surr: DNOP	78.8	55.1-146		%Rec	1	6/6/2020 5:28:36 PM	52911
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/6/2020 10:49:41 PM	52895
Surr: BFB	83.7	66.6-105		%Rec	1	6/6/2020 10:49:41 PM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	6/6/2020 10:49:41 PM	52895
Toluene	ND	0.047		mg/Kg	1	6/6/2020 10:49:41 PM	52895
Ethylbenzene	ND	0.047		mg/Kg	1	6/6/2020 10:49:41 PM	52895
Xylenes, Total	ND	0.094		mg/Kg	1	6/6/2020 10:49:41 PM	52895
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/6/2020 10:49:41 PM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-15-H North Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 11:30:00 AM

Lab ID: 2006230-006

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	ND	59		mg/Kg	20	6/10/2020 12:40:35 PM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	13	9.3		mg/Kg	1	6/6/2020 10:31:24 AM	52917
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/6/2020 10:31:24 AM	52917
Surr: DNOP	56.9	55.1-146		%Rec	1	6/6/2020 10:31:24 AM	52917
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/6/2020 11:13:10 PM	52895
Surr: BFB	85.8	66.6-105		%Rec	1	6/6/2020 11:13:10 PM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/6/2020 11:13:10 PM	52895
Toluene	ND	0.049		mg/Kg	1	6/6/2020 11:13:10 PM	52895
Ethylbenzene	ND	0.049		mg/Kg	1	6/6/2020 11:13:10 PM	52895
Xylenes, Total	ND	0.099		mg/Kg	1	6/6/2020 11:13:10 PM	52895
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	6/6/2020 11:13:10 PM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-16-H East Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 11:55:00 AM

Lab ID: 2006230-007

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	160	60		mg/Kg	20	6/10/2020 12:52:55 PM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/6/2020 11:44:06 AM	52917
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/6/2020 11:44:06 AM	52917
Surr: DNOP	56.9	55.1-146		%Rec	1	6/6/2020 11:44:06 AM	52917
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/6/2020 11:36:46 PM	52895
Surr: BFB	83.3	66.6-105		%Rec	1	6/6/2020 11:36:46 PM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/6/2020 11:36:46 PM	52895
Toluene	ND	0.047		mg/Kg	1	6/6/2020 11:36:46 PM	52895
Ethylbenzene	ND	0.047		mg/Kg	1	6/6/2020 11:36:46 PM	52895
Xylenes, Total	ND	0.094		mg/Kg	1	6/6/2020 11:36:46 PM	52895
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/6/2020 11:36:46 PM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-17-H South Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 12:20:00 PM

Lab ID: 2006230-008

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	150	60		mg/Kg	20	6/10/2020 1:05:16 PM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/6/2020 12:08:12 PM	52917
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/6/2020 12:08:12 PM	52917
Surr: DNOP	60.1	55.1-146		%Rec	1	6/6/2020 12:08:12 PM	52917
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/7/2020 12:00:24 AM	52895
Surr: BFB	84.6	66.6-105		%Rec	1	6/7/2020 12:00:24 AM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/7/2020 12:00:24 AM	52895
Toluene	ND	0.048		mg/Kg	1	6/7/2020 12:00:24 AM	52895
Ethylbenzene	ND	0.048		mg/Kg	1	6/7/2020 12:00:24 AM	52895
Xylenes, Total	ND	0.096		mg/Kg	1	6/7/2020 12:00:24 AM	52895
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/7/2020 12:00:24 AM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-18-H South Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 12:50:00 PM

Lab ID: 2006230-009

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	160	60		mg/Kg	20	6/10/2020 1:17:36 PM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/6/2020 12:32:32 PM	52917
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/6/2020 12:32:32 PM	52917
Surr: DNOP	45.5	55.1-146	S	%Rec	1	6/6/2020 12:32:32 PM	52917
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/7/2020 12:23:57 AM	52895
Surr: BFB	82.6	66.6-105		%Rec	1	6/7/2020 12:23:57 AM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	6/7/2020 12:23:57 AM	52895
Toluene	ND	0.047		mg/Kg	1	6/7/2020 12:23:57 AM	52895
Ethylbenzene	ND	0.047		mg/Kg	1	6/7/2020 12:23:57 AM	52895
Xylenes, Total	ND	0.094		mg/Kg	1	6/7/2020 12:23:57 AM	52895
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/7/2020 12:23:57 AM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-19-H South Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 1:15:00 PM

Lab ID: 2006230-010

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/10/2020 1:54:38 PM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/6/2020 12:56:38 PM	52917
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/6/2020 12:56:38 PM	52917
Surr: DNOP	46.8	55.1-146	S	%Rec	1	6/6/2020 12:56:38 PM	52917
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/7/2020 12:47:31 AM	52895
Surr: BFB	84.2	66.6-105		%Rec	1	6/7/2020 12:47:31 AM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/7/2020 12:47:31 AM	52895
Toluene	ND	0.048		mg/Kg	1	6/7/2020 12:47:31 AM	52895
Ethylbenzene	ND	0.048		mg/Kg	1	6/7/2020 12:47:31 AM	52895
Xylenes, Total	ND	0.096		mg/Kg	1	6/7/2020 12:47:31 AM	52895
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/7/2020 12:47:31 AM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-20-H South Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 1:35:00 PM

Lab ID: 2006230-011

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/10/2020 2:06:59 PM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/6/2020 1:21:00 PM	52917
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/6/2020 1:21:00 PM	52917
Surr: DNOP	56.6	55.1-146		%Rec	1	6/6/2020 1:21:00 PM	52917
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/7/2020 1:11:10 AM	52895
Surr: BFB	81.7	66.6-105		%Rec	1	6/7/2020 1:11:10 AM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/7/2020 1:11:10 AM	52895
Toluene	ND	0.048		mg/Kg	1	6/7/2020 1:11:10 AM	52895
Ethylbenzene	ND	0.048		mg/Kg	1	6/7/2020 1:11:10 AM	52895
Xylenes, Total	ND	0.095		mg/Kg	1	6/7/2020 1:11:10 AM	52895
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/7/2020 1:11:10 AM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2006230

Date Reported: 6/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-21-H South Surface

Project: Devon Tomcat 16 State 13

Collection Date: 6/2/2020 2:10:00 PM

Lab ID: 2006230-012

Matrix: SOIL

Received Date: 6/4/2020 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/10/2020 2:19:20 PM	52998
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/6/2020 1:45:12 PM	52917
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/6/2020 1:45:12 PM	52917
Surr: DNOP	69.8	55.1-146		%Rec	1	6/6/2020 1:45:12 PM	52917
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/7/2020 1:34:59 AM	52895
Surr: BFB	82.8	66.6-105		%Rec	1	6/7/2020 1:34:59 AM	52895
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/7/2020 1:34:59 AM	52895
Toluene	ND	0.050		mg/Kg	1	6/7/2020 1:34:59 AM	52895
Ethylbenzene	ND	0.050		mg/Kg	1	6/7/2020 1:34:59 AM	52895
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2020 1:34:59 AM	52895
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/7/2020 1:34:59 AM	52895

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2006230

11-Jun-20

**Client:** Safety & Environmental Solutions**Project:** Devon Tomcat 16 State 13

Sample ID: <b>MB-52998</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52998</b>	RunNo: <b>69559</b>								
Prep Date: <b>6/10/2020</b>	Analysis Date: <b>6/10/2020</b>	SeqNo: <b>2414133</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-52998</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52998</b>	RunNo: <b>69559</b>								
Prep Date: <b>6/10/2020</b>	Analysis Date: <b>6/10/2020</b>	SeqNo: <b>2414134</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 13 of 17



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2006230

11-Jun-20

**Client:** Safety & Environmental Solutions**Project:** Devon Tomcat 16 State 13

Sample ID: <b>MB-52911</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52911</b>	RunNo: <b>69424</b>								
Prep Date: <b>6/5/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409199</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		111	55.1	146			

Sample ID: <b>LCS-52911</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52911</b>	RunNo: <b>69424</b>								
Prep Date: <b>6/5/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409200</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	112	70	130			
Surr: DNOP	5.4		5.000		107	55.1	146			

Sample ID: <b>2006230-006AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>AH-15-H North Surfa</b>	Batch ID: <b>52917</b>	RunNo: <b>69422</b>								
Prep Date: <b>6/5/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409512</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	9.3	46.64	13.31	92.2	47.4	136			
Surr: DNOP	2.2		4.664		46.6	55.1	146			S

Sample ID: <b>2006230-006AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>AH-15-H North Surfa</b>	Batch ID: <b>52917</b>	RunNo: <b>69422</b>								
Prep Date: <b>6/5/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409513</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	9.8	49.02	13.31	86.1	47.4	136	1.41	43.4	
Surr: DNOP	2.4		4.902		48.5	55.1	146	0	0	S

Sample ID: <b>LCS-52917</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52917</b>	RunNo: <b>69422</b>								
Prep Date: <b>6/5/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409555</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	70	130			
Surr: DNOP	3.6		5.000		72.7	55.1	146			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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QC SUMMARY REPORT  
Hall Environmental Analysis Laboratory, Inc.

WO#: 2006230  
11-Jun-20

Client: Safety & Environmental Solutions  
Project: Devon Tomcat 16 State 13

Sample ID: MB-52917	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52917	RunNo: 69422								
Prep Date: 6/5/2020	Analysis Date: 6/6/2020	SeqNo: 2409557	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.4		10.00		84.3	55.1	146			

Qualifiers:

- \*

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2006230

11-Jun-20

**Client:** Safety & Environmental Solutions**Project:** Devon Tomcat 16 State 13

Sample ID: <b>mb-52895</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52895</b>	RunNo: <b>69459</b>								
Prep Date: <b>6/4/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409785</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.7	66.6	105			

Sample ID: <b>LCS-52895</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52895</b>	RunNo: <b>69459</b>								
Prep Date: <b>6/4/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409786</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.9	80	120			
Surr: BFB	960		1000		96.1	66.6	105			

Sample ID: <b>2006230-002ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>AH-11-H North Surfa</b>	Batch ID: <b>52895</b>	RunNo: <b>69459</b>								
Prep Date: <b>6/4/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409789</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	24.95	0	80.0	80	120			
Surr: BFB	950		998.0		95.7	66.6	105			

Sample ID: <b>2006230-002amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>AH-11-H North Surfa</b>	Batch ID: <b>52895</b>	RunNo: <b>69459</b>								
Prep Date: <b>6/4/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409790</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.8	24.02	0	91.2	80	120	9.32	20	
Surr: BFB	980		960.6		102	66.6	105	0	0	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2006230

11-Jun-20

**Client:** Safety & Environmental Solutions**Project:** Devon Tomcat 16 State 13

Sample ID: <b>mb-52895</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52895</b>	RunNo: <b>69459</b>								
Prep Date: <b>6/4/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409804</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID: <b>LCS-52895</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52895</b>	RunNo: <b>69459</b>								
Prep Date: <b>6/4/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409805</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.7	80	120			
Toluene	0.97	0.050	1.000	0	97.5	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.8	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID: <b>2006230-001ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>AH-10-H West Surfa</b>	Batch ID: <b>52895</b>	RunNo: <b>69459</b>								
Prep Date: <b>6/4/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409807</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	0.9940	0	96.6	78.5	119			
Toluene	0.98	0.050	0.9940	0	99.1	75.7	123			
Ethylbenzene	0.99	0.050	0.9940	0	99.2	74.3	126			
Xylenes, Total	3.0	0.099	2.982	0	99.7	72.9	130			
Surr: 4-Bromofluorobenzene	1.1		0.9940		106	80	120			

Sample ID: <b>2006230-001amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>AH-10-H West Surfa</b>	Batch ID: <b>52895</b>	RunNo: <b>69459</b>								
Prep Date: <b>6/4/2020</b>	Analysis Date: <b>6/6/2020</b>	SeqNo: <b>2409808</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9843	0	101	78.5	119	3.97	20	
Toluene	1.0	0.049	0.9843	0	105	75.7	123	4.64	20	
Ethylbenzene	1.0	0.049	0.9843	0	105	74.3	126	4.64	20	
Xylenes, Total	3.1	0.098	2.953	0	106	72.9	130	5.04	20	
Surr: 4-Bromofluorobenzene	1.1		0.9843		108	80	120	0	0	

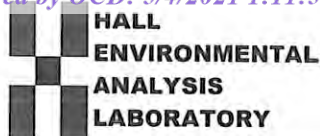
**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Safety Env Solutions

Work Order Number: 2006230

RcptNo: 1

Received By: Scott Anderson 6/4/2020 9:20:00 AM

Completed By: Desiree Dominguez 6/4/2020 9:11:02 AM

Reviewed By: LB

6/4/20

ID-2

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:  
( $<2$  or  $>12$  unless noted)

Adjusted?

Checked by: JR 6/4/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail☐ Phone☐ Fax☐ In Person

Regarding:

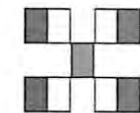
Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.7	Good	Not Present			

Chain-of-Custody Record		Turn-Around Time: 5 day Turn
Client: Safety & Environmental Solutions	Project Name: Devol Tower 16 State 13	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Mailing Address: 703 E. Clinton	Project #: 20848469	
Phone #: 575-397-0570	Project #: Dev-16-001	
email or Fax#:	Project Manager: Allen, Bob	
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	Sampler: Sany	
Accreditation: <input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> EDD (Type)	# of Coolers: 1	



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

[illegible]

Remarks:

Bill Devan





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [clients.hallenvironmental.com](http://clients.hallenvironmental.com)

March 16, 2021

Bob Allen  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 397-0510  
FAX: (575) 393-4388

RE: Devon Tom Cat 16 State 13

OrderNo.: 2103562

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 8 sample(s) on 3/11/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 2103562

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-1 Bottom 2ft

Project: Devon Tom Cat 16 State 13

Collection Date: 3/8/2021 9:25:00 AM

Lab ID: 2103562-001

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	3/15/2021 7:01:26 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/12/2021 11:37:17 AM	58676
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/12/2021 11:37:17 AM	58676
Surr: DNOP	74.7	70-130		%Rec	1	3/12/2021 11:37:17 AM	58676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/12/2021 9:27:14 PM	58673
Surr: BFB	105	75.3-105		%Rec	1	3/12/2021 9:27:14 PM	58673
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	3/12/2021 9:27:14 PM	58673
Toluene	ND	0.050		mg/Kg	1	3/12/2021 9:27:14 PM	58673
Ethylbenzene	ND	0.050		mg/Kg	1	3/12/2021 9:27:14 PM	58673
Xylenes, Total	ND	0.10		mg/Kg	1	3/12/2021 9:27:14 PM	58673
Surr: 4-Bromofluorobenzene	99.9	80-120		%Rec	1	3/12/2021 9:27:14 PM	58673

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 1 of 12



## Analytical Report

Lab Order 2103562

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-2 Bottom 1.5ft

Project: Devon Tom Cat 16 State 13

Collection Date: 3/8/2021 10:00:00 AM

Lab ID: 2103562-002

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	64	60		mg/Kg	20	3/15/2021 7:38:39 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	3/12/2021 11:47:03 AM	58676
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	3/12/2021 11:47:03 AM	58676
Surr: DNOP	79.0	70-130		%Rec	1	3/12/2021 11:47:03 AM	58676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/12/2021 9:50:55 PM	58673
Surr: BFB	102	75.3-105		%Rec	1	3/12/2021 9:50:55 PM	58673
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	3/12/2021 9:50:55 PM	58673
Toluene	ND	0.049		mg/Kg	1	3/12/2021 9:50:55 PM	58673
Ethylbenzene	ND	0.049		mg/Kg	1	3/12/2021 9:50:55 PM	58673
Xylenes, Total	ND	0.099		mg/Kg	1	3/12/2021 9:50:55 PM	58673
Surr: 4-Bromofluorobenzene	95.5	80-120		%Rec	1	3/12/2021 9:50:55 PM	58673

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2103562

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-4 Bottom 1.5ft

Project: Devon Tom Cat 16 State 13

Collection Date: 3/8/2021 11:30:00 AM

Lab ID: 2103562-003

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	3/15/2021 7:51:03 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/12/2021 11:56:51 AM	58676
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/12/2021 11:56:51 AM	58676
Surr: DNOP	93.0	70-130		%Rec	1	3/12/2021 11:56:51 AM	58676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/12/2021 10:14:34 PM	58673
Surr: BFB	102	75.3-105		%Rec	1	3/12/2021 10:14:34 PM	58673
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	3/12/2021 10:14:34 PM	58673
Toluene	ND	0.049		mg/Kg	1	3/12/2021 10:14:34 PM	58673
Ethylbenzene	ND	0.049		mg/Kg	1	3/12/2021 10:14:34 PM	58673
Xylenes, Total	ND	0.099		mg/Kg	1	3/12/2021 10:14:34 PM	58673
Surr: 4-Bromofluorobenzene	95.2	80-120		%Rec	1	3/12/2021 10:14:34 PM	58673

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2103562

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-5 Bottom 1.5ft

Project: Devon Tom Cat 16 State 13

Collection Date: 3/8/2021 11:00:00 AM

Lab ID: 2103562-004

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	3/15/2021 8:28:16 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/12/2021 12:06:35 PM	58676
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/12/2021 12:06:35 PM	58676
Surr: DNOP	83.2	70-130		%Rec	1	3/12/2021 12:06:35 PM	58676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/12/2021 10:38:12 PM	58673
Surr: BFB	103	75.3-105		%Rec	1	3/12/2021 10:38:12 PM	58673
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/12/2021 10:38:12 PM	58673
Toluene	ND	0.049		mg/Kg	1	3/12/2021 10:38:12 PM	58673
Ethylbenzene	ND	0.049		mg/Kg	1	3/12/2021 10:38:12 PM	58673
Xylenes, Total	ND	0.097		mg/Kg	1	3/12/2021 10:38:12 PM	58673
Surr: 4-Bromofluorobenzene	96.6	80-120		%Rec	1	3/12/2021 10:38:12 PM	58673

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2103562

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-6 Bottom 1.5ft

Project: Devon Tom Cat 16 State 13

Collection Date: 3/8/2021 12:35:00 PM

Lab ID: 2103562-005

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	150	60		mg/Kg	20	3/15/2021 8:40:41 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	3/12/2021 12:16:22 PM	58676
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	3/12/2021 12:16:22 PM	58676
Surr: DNOP	93.2	70-130		%Rec	1	3/12/2021 12:16:22 PM	58676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/12/2021 11:01:48 PM	58673
Surr: BFB	102	75.3-105		%Rec	1	3/12/2021 11:01:48 PM	58673
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/12/2021 11:01:48 PM	58673
Toluene	ND	0.049		mg/Kg	1	3/12/2021 11:01:48 PM	58673
Ethylbenzene	ND	0.049		mg/Kg	1	3/12/2021 11:01:48 PM	58673
Xylenes, Total	ND	0.098		mg/Kg	1	3/12/2021 11:01:48 PM	58673
Surr: 4-Bromofluorobenzene	95.1	80-120		%Rec	1	3/12/2021 11:01:48 PM	58673

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2103562

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-10 North Wall

Project: Devon Tom Cat 16 State 13

Collection Date: 3/8/2021 9:00:00 AM

Lab ID: 2103562-006

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	3/15/2021 8:53:05 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	3/12/2021 12:26:12 PM	58676
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	3/12/2021 12:26:12 PM	58676
Surr: DNOP	84.7	70-130		%Rec	1	3/12/2021 12:26:12 PM	58676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/12/2021 11:25:14 PM	58673
Surr: BFB	106	75.3-105	S	%Rec	1	3/12/2021 11:25:14 PM	58673
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/12/2021 11:25:14 PM	58673
Toluene	ND	0.049		mg/Kg	1	3/12/2021 11:25:14 PM	58673
Ethylbenzene	ND	0.049		mg/Kg	1	3/12/2021 11:25:14 PM	58673
Xylenes, Total	ND	0.097		mg/Kg	1	3/12/2021 11:25:14 PM	58673
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	1	3/12/2021 11:25:14 PM	58673

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2103562

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-11 North Wall

Project: Devon Tom Cat 16 State 13

Collection Date: 3/8/2021 1:00:00 PM

Lab ID: 2103562-007

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	61		mg/Kg	20	3/15/2021 9:05:30 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	3/12/2021 12:36:10 PM	58676
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	3/12/2021 12:36:10 PM	58676
Surr: DNOP	94.0	70-130		%Rec	1	3/12/2021 12:36:10 PM	58676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/12/2021 11:48:55 PM	58673
Surr: BFB	104	75.3-105		%Rec	1	3/12/2021 11:48:55 PM	58673
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	3/12/2021 11:48:55 PM	58673
Toluene	ND	0.050		mg/Kg	1	3/12/2021 11:48:55 PM	58673
Ethylbenzene	ND	0.050		mg/Kg	1	3/12/2021 11:48:55 PM	58673
Xylenes, Total	ND	0.099		mg/Kg	1	3/12/2021 11:48:55 PM	58673
Surr: 4-Bromofluorobenzene	96.4	80-120		%Rec	1	3/12/2021 11:48:55 PM	58673

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2103562

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-15 West Wall

Project: Devon Tom Cat 16 State 13

Collection Date: 3/8/2021 10:40:00 AM

Lab ID: 2103562-008

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	3/15/2021 9:17:54 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	3/12/2021 12:46:06 PM	58676
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	3/12/2021 12:46:06 PM	58676
Surr: DNOP	83.7	70-130		%Rec	1	3/12/2021 12:46:06 PM	58676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/13/2021 12:12:33 AM	58673
Surr: BFB	104	75.3-105		%Rec	1	3/13/2021 12:12:33 AM	58673
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/13/2021 12:12:33 AM	58673
Toluene	ND	0.048		mg/Kg	1	3/13/2021 12:12:33 AM	58673
Ethylbenzene	ND	0.048		mg/Kg	1	3/13/2021 12:12:33 AM	58673
Xylenes, Total	ND	0.096		mg/Kg	1	3/13/2021 12:12:33 AM	58673
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	3/13/2021 12:12:33 AM	58673

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2103562

16-Mar-21

**Client:** Safety & Environmental Solutions**Project:** Devon Tom Cat 16 State 13

Sample ID: <b>MB-58731</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>58731</b>	RunNo: <b>75950</b>								
Prep Date: <b>3/15/2021</b>	Analysis Date: <b>3/15/2021</b>	SeqNo: <b>2687729</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-58731</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>58731</b>	RunNo: <b>75950</b>								
Prep Date: <b>3/15/2021</b>	Analysis Date: <b>3/15/2021</b>	SeqNo: <b>2687730</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.0	90	110			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2103562

16-Mar-21

**Client:** Safety & Environmental Solutions**Project:** Devon Tom Cat 16 State 13

Sample ID: <b>MB-58676</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>58676</b>	RunNo: <b>75912</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2685950</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.7		10.00		86.6	70	130			

Sample ID: <b>LCS-58676</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>58676</b>	RunNo: <b>75912</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2685951</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.6	68.9	141			
Surr: DNOP	4.5		5.000		90.1	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2103562

16-Mar-21

**Client:** Safety & Environmental Solutions**Project:** Devon Tom Cat 16 State 13

Sample ID: <b>mb-58673</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>58673</b>	RunNo: <b>75901</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2686708</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	75.3	105			

Sample ID: <b>lcs-58673</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>58673</b>	RunNo: <b>75901</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2686709</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	80	120			
Surr: BFB	1100		1000		114	75.3	105			S

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2103562

16-Mar-21

**Client:** Safety & Environmental Solutions**Project:** Devon Tom Cat 16 State 13

Sample ID: <b>mb-58673</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>58673</b>	RunNo: <b>75901</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2686749</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		96.5	80	120			

Sample ID: <b>LCS-58673</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>58673</b>	RunNo: <b>75901</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2686750</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.7	80	120			
Toluene	0.90	0.050	1.000	0	90.2	80	120			
Ethylbenzene	0.90	0.050	1.000	0	90.4	80	120			
Xylenes, Total	2.7	0.10	3.000	0	89.6	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

## Sample Log-In Check List

Client Name: **Safety & Environmental Solutions**

Work Order Number: **2103562**

RcptNo: 1

Received By: **Cheyenne Cason**

3/11/2021 7:30:00 AM

Completed By: **Sean Livingston**

3/11/2021 8:44:19 AM

Reviewed By: *CL*

3/11/21

*Se-Lyn*

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

Checked by: **DAD 3/11/21**

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good				



## Turn-Around Time: 21

Client:	Safety & Compliance Model Solutions
Mailing Address:	703 E. Clanton Nobles NM 88240
Phone #:	575-397-0510
email or Fax#:	
QA/QC Package:	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)
Accreditation:	<input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other
	<input type="checkbox"/> EDD (Type)

Turn-Around Time:	5 day
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush
Project Name:	Devon
	Tomcat 16 Site 13
Project #:	Dev 16-001

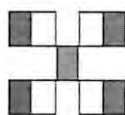
Project Manager:	Allen, Bob	
Sampler:	Sen Jang	
On Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
# of Coolers:	1	

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	Cooler Temp (including CF): $1.8 + 0.1 = 1.9$ (°C)
03/08	0925	S	SP-1 Bottom 2F	1	Jelly	2103562	001
	1000	S	SP-2 Bottom 1.5F	1	Jelly	002	002
	1130	S	SP-4 Bottom 1.5F	1		003	003
	1100	S	SP-5 Bottom 1.5F	1		004	004
	1235	S	SP-6 Bottom 1.5F	1		005	005
	0900	S	SP-10 North well	1		006	006
	1300		SP-11 North well	1		007	007
03/08	1040		SP-15 West well	1		008	008

Date:	Time:	Relinquished by:	Received by:	Date:	Time:
3/10/21	1500	<i>[Signature]</i>	<i>[Signature]</i>	3/10/21	1600
3/10/21	1900	<i>[Signature]</i>	<i>[Signature]</i>	3/11/21	0730

Remarks:

Received by: <i>[Signature]</i>	Via:	Date	Time
Received by: <i>[Signature]</i>	Via:	Date	Time



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

Project Manager:	Allen, Bob	
Sampler:	Sen Jang	
On Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
# of Coolers:	1	

Cooler Temp (including CF): 1.8 + 0.1 = 1.9 (°C)	Container Type and #	Preservative Type	HEAL No.
	1	Sal	2103562 001
	1	Penk	002
	1		003
	1		004
	1		005
	1		006
	1		007
	1		008

[illegible]

Remarks:

Received by: <i>[Signature]</i>	Via:	Date	Time
Received by: <i>[Signature]</i>	Via:	Date	Time



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [clients.hallenvironmental.com](http://clients.hallenvironmental.com)

March 16, 2021

Bob Allen  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 397-0510  
FAX: (575) 393-4388

RE: Devon Tom Cat 16 State 13

OrderNo.: 2103565

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 8 sample(s) on 3/11/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 2103565

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-3 Bottom 1.5ft

Project: Devon Tom Cat 16 State 13

Collection Date: 3/9/2021 9:15:00 AM

Lab ID: 2103565-001

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	63	60		mg/Kg	20	3/15/2021 9:30:18 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	3/12/2021 1:07:39 PM	58676
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	3/12/2021 1:07:39 PM	58676
Surr: DNOP	79.4	70-130		%Rec	1	3/12/2021 1:07:39 PM	58676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/13/2021 12:59:44 AM	58673
Surr: BFB	104	75.3-105		%Rec	1	3/13/2021 12:59:44 AM	58673
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/13/2021 12:59:44 AM	58673
Toluene	ND	0.048		mg/Kg	1	3/13/2021 12:59:44 AM	58673
Ethylbenzene	ND	0.048		mg/Kg	1	3/13/2021 12:59:44 AM	58673
Xylenes, Total	ND	0.096		mg/Kg	1	3/13/2021 12:59:44 AM	58673
Surr: 4-Bromofluorobenzene	95.9	80-120		%Rec	1	3/13/2021 12:59:44 AM	58673

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2103565

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-7 Bottom 1.5ft

Project: Devon Tom Cat 16 State 13

Collection Date: 3/9/2021 10:00:00 AM

Lab ID: 2103565-002

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	150	60		mg/Kg	20	3/15/2021 9:42:43 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/12/2021 1:17:35 PM	58676
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/12/2021 1:17:35 PM	58676
Surr: DNOP	80.0	70-130		%Rec	1	3/12/2021 1:17:35 PM	58676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/13/2021 1:23:21 AM	58673
Surr: BFB	106	75.3-105	S	%Rec	1	3/13/2021 1:23:21 AM	58673
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	3/13/2021 1:23:21 AM	58673
Toluene	ND	0.050		mg/Kg	1	3/13/2021 1:23:21 AM	58673
Ethylbenzene	ND	0.050		mg/Kg	1	3/13/2021 1:23:21 AM	58673
Xylenes, Total	ND	0.099		mg/Kg	1	3/13/2021 1:23:21 AM	58673
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	3/13/2021 1:23:21 AM	58673

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 2103565

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-8 Bottom 1.5ft

Project: Devon Tom Cat 16 State 13

Collection Date: 3/9/2021 10:20:00 AM

Lab ID: 2103565-003

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	3/15/2021 9:55:07 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/13/2021 10:50:20 AM	58689
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/13/2021 10:50:20 AM	58689
Surr: DNOP	89.3	70-130		%Rec	1	3/13/2021 10:50:20 AM	58689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>CCM</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/12/2021 11:47:00 AM	58684
Surr: BFB	89.2	75.3-105		%Rec	1	3/12/2021 11:47:00 AM	58684
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>CCM</b>
Benzene	ND	0.023		mg/Kg	1	3/12/2021 11:47:00 AM	58684
Toluene	ND	0.047		mg/Kg	1	3/12/2021 11:47:00 AM	58684
Ethylbenzene	ND	0.047		mg/Kg	1	3/12/2021 11:47:00 AM	58684
Xylenes, Total	ND	0.094		mg/Kg	1	3/12/2021 11:47:00 AM	58684
Surr: 4-Bromofluorobenzene	85.5	80-120		%Rec	1	3/12/2021 11:47:00 AM	58684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2103565

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-9 Bottom 1.5ft

Project: Devon Tom Cat 16 State 13

Collection Date: 3/9/2021 10:55:00 AM

Lab ID: 2103565-004

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	3/15/2021 10:07:32 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	3/13/2021 12:01:15 PM	58689
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	3/13/2021 12:01:15 PM	58689
Surr: DNOP	92.3	70-130		%Rec	1	3/13/2021 12:01:15 PM	58689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>CCM</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/12/2021 12:47:00 PM	58684
Surr: BFB	85.6	75.3-105		%Rec	1	3/12/2021 12:47:00 PM	58684
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>CCM</b>
Benzene	ND	0.025		mg/Kg	1	3/12/2021 12:47:00 PM	58684
Toluene	ND	0.049		mg/Kg	1	3/12/2021 12:47:00 PM	58684
Ethylbenzene	ND	0.049		mg/Kg	1	3/12/2021 12:47:00 PM	58684
Xylenes, Total	ND	0.099		mg/Kg	1	3/12/2021 12:47:00 PM	58684
Surr: 4-Bromofluorobenzene	80.6	80-120		%Rec	1	3/12/2021 12:47:00 PM	58684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2103565

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-12 North Wall

Project: Devon Tom Cat 16 State 13

Collection Date: 3/9/2021 11:15:00 AM

Lab ID: 2103565-005

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	3/15/2021 10:19:56 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	3/13/2021 12:25:07 PM	58689
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	3/13/2021 12:25:07 PM	58689
Surr: DNOP	93.7	70-130		%Rec	1	3/13/2021 12:25:07 PM	58689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>CCM</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/12/2021 1:47:00 PM	58684
Surr: BFB	85.0	75.3-105		%Rec	1	3/12/2021 1:47:00 PM	58684
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>CCM</b>
Benzene	ND	0.025		mg/Kg	1	3/12/2021 1:47:00 PM	58684
Toluene	ND	0.049		mg/Kg	1	3/12/2021 1:47:00 PM	58684
Ethylbenzene	ND	0.049		mg/Kg	1	3/12/2021 1:47:00 PM	58684
Xylenes, Total	ND	0.099		mg/Kg	1	3/12/2021 1:47:00 PM	58684
Surr: 4-Bromofluorobenzene	83.2	80-120		%Rec	1	3/12/2021 1:47:00 PM	58684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2103565

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-13 East Wall

Project: Devon Tom Cat 16 State 13

Collection Date: 3/9/2021 11:30:00 AM

Lab ID: 2103565-006

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	3/15/2021 10:57:10 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/13/2021 12:48:52 PM	58689
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/13/2021 12:48:52 PM	58689
Surr: DNOP	91.0	70-130		%Rec	1	3/13/2021 12:48:52 PM	58689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>CCM</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/12/2021 2:06:00 PM	58684
Surr: BFB	88.7	75.3-105		%Rec	1	3/12/2021 2:06:00 PM	58684
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>CCM</b>
Benzene	ND	0.025		mg/Kg	1	3/12/2021 2:06:00 PM	58684
Toluene	ND	0.049		mg/Kg	1	3/12/2021 2:06:00 PM	58684
Ethylbenzene	ND	0.049		mg/Kg	1	3/12/2021 2:06:00 PM	58684
Xylenes, Total	ND	0.099		mg/Kg	1	3/12/2021 2:06:00 PM	58684
Surr: 4-Bromofluorobenzene	85.8	80-120		%Rec	1	3/12/2021 2:06:00 PM	58684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2103565

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-14 South Wall

Project: Devon Tom Cat 16 State 13

Collection Date: 3/9/2021 12:05:00 PM

Lab ID: 2103565-007

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	62	60		mg/Kg	20	3/15/2021 11:09:35 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	3/13/2021 1:12:40 PM	58689
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	3/13/2021 1:12:40 PM	58689
Surr: DNOP	84.5	70-130		%Rec	1	3/13/2021 1:12:40 PM	58689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>CCM</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/12/2021 2:26:00 PM	58684
Surr: BFB	88.8	75.3-105		%Rec	1	3/12/2021 2:26:00 PM	58684
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>CCM</b>
Benzene	ND	0.024		mg/Kg	1	3/12/2021 2:26:00 PM	58684
Toluene	ND	0.047		mg/Kg	1	3/12/2021 2:26:00 PM	58684
Ethylbenzene	ND	0.047		mg/Kg	1	3/12/2021 2:26:00 PM	58684
Xylenes, Total	ND	0.094		mg/Kg	1	3/12/2021 2:26:00 PM	58684
Surr: 4-Bromofluorobenzene	84.5	80-120		%Rec	1	3/12/2021 2:26:00 PM	58684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2103565

Date Reported: 3/16/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-16 South Wall

Project: Devon Tom Cat 16 State 13

Collection Date: 3/9/2021 1:05:00 PM

Lab ID: 2103565-008

Matrix: SOIL

Received Date: 3/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	3/15/2021 11:21:59 PM	58731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	3/13/2021 1:36:35 PM	58689
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/13/2021 1:36:35 PM	58689
Surr: DNOP	84.7	70-130		%Rec	1	3/13/2021 1:36:35 PM	58689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>CCM</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/12/2021 2:46:00 PM	58684
Surr: BFB	89.2	75.3-105		%Rec	1	3/12/2021 2:46:00 PM	58684
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>CCM</b>
Benzene	ND	0.024		mg/Kg	1	3/12/2021 2:46:00 PM	58684
Toluene	ND	0.047		mg/Kg	1	3/12/2021 2:46:00 PM	58684
Ethylbenzene	ND	0.047		mg/Kg	1	3/12/2021 2:46:00 PM	58684
Xylenes, Total	ND	0.095		mg/Kg	1	3/12/2021 2:46:00 PM	58684
Surr: 4-Bromofluorobenzene	83.5	80-120		%Rec	1	3/12/2021 2:46:00 PM	58684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2103565

16-Mar-21

**Client:** Safety & Environmental Solutions**Project:** Devon Tom Cat 16 State 13

Sample ID: <b>MB-58731</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>58731</b>	RunNo: <b>75950</b>								
Prep Date: <b>3/15/2021</b>	Analysis Date: <b>3/15/2021</b>	SeqNo: <b>2687729</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-58731</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>58731</b>	RunNo: <b>75950</b>								
Prep Date: <b>3/15/2021</b>	Analysis Date: <b>3/15/2021</b>	SeqNo: <b>2687730</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.0	90	110			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 9 of 15

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2103565

16-Mar-21

**Client:** Safety & Environmental Solutions**Project:** Devon Tom Cat 16 State 13

Sample ID: <b>MB-58676</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>58676</b>	RunNo: <b>75912</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2685950</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.7		10.00		86.6	70	130			

Sample ID: <b>LCS-58676</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>58676</b>	RunNo: <b>75912</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2685951</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.6	68.9	141			
Surr: DNOP	4.5		5.000		90.1	70	130			

Sample ID: <b>MB-58689</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>58689</b>	RunNo: <b>75928</b>								
Prep Date: <b>3/12/2021</b>	Analysis Date: <b>3/13/2021</b>	SeqNo: <b>2686862</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.1		10.00		90.9	70	130			

Sample ID: <b>LCS-58689</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>58689</b>	RunNo: <b>75928</b>								
Prep Date: <b>3/12/2021</b>	Analysis Date: <b>3/13/2021</b>	SeqNo: <b>2686863</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.5	68.9	141			
Surr: DNOP	4.2		5.000		84.3	70	130			

Sample ID: <b>2103565-003AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>SP-8 Bottom 1.5ft</b>	Batch ID: <b>58689</b>	RunNo: <b>75928</b>								
Prep Date: <b>3/12/2021</b>	Analysis Date: <b>3/13/2021</b>	SeqNo: <b>2686864</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.5	47.48	0	92.4	15	184			
Surr: DNOP	4.4		4.748		92.8	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



QC SUMMARY REPORT  
Hall Environmental Analysis Laboratory, Inc.

WO#: 2103565  
16-Mar-21

Client: Safety & Environmental Solutions  
Project: Devon Tom Cat 16 State 13

Sample ID: 2103565-003AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: SP-8 Bottom 1.5ft		Batch ID: 58689		RunNo: 75928						
Prep Date: 3/12/2021		Analysis Date: 3/13/2021		SeqNo: 2686865		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.7	48.45	0	85.2	15	184	6.11	23.9	
Surr: DNOP	4.1		4.845		84.9	70	130	0	0	

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2103565

16-Mar-21

**Client:** Safety & Environmental Solutions**Project:** Devon Tom Cat 16 State 13

Sample ID: <b>ics-58684</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>58684</b>		RunNo: <b>75902</b>							
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>		SeqNo: <b>2685645</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	80	120			
Surr: BFB	990		1000		99.2	75.3	105			

Sample ID: <b>mb-58684</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>58684</b>		RunNo: <b>75902</b>							
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>		SeqNo: <b>2685646</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.8	75.3	105			

Sample ID: <b>2103565-003ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>SP-8 Bottom 1.5ft</b>	Batch ID: <b>58684</b>		RunNo: <b>75902</b>							
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>		SeqNo: <b>2686325</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	4.8	24.06	0	130	61.3	114			S
Surr: BFB	1000		962.5		105	75.3	105			S

Sample ID: <b>2103565-003amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>SP-8 Bottom 1.5ft</b>	Batch ID: <b>58684</b>		RunNo: <b>75902</b>							
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>		SeqNo: <b>2686326</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.7	23.28	0	129	61.3	114	4.76	20	S
Surr: BFB	910		931.1		97.7	75.3	105	0	0	

Sample ID: <b>mb-58673</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>58673</b>		RunNo: <b>75901</b>							
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>		SeqNo: <b>2686708</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	75.3	105			

Sample ID: <b>ics-58673</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>58673</b>		RunNo: <b>75901</b>							
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>		SeqNo: <b>2686709</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

QC SUMMARY REPORT  
Hall Environmental Analysis Laboratory, Inc.

WO#: 2103565  
16-Mar-21

Client: Safety & Environmental Solutions  
Project: Devon Tom Cat 16 State 13

Sample ID: Ics-58673	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 58673	RunNo: 75901								
Prep Date: 3/11/2021	Analysis Date: 3/12/2021	SeqNo: 2686709	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	80	120			
Surr: BFB	1100		1000		114	75.3	105			S

Qualifiers:

- \*

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2103565

16-Mar-21

**Client:** Safety & Environmental Solutions**Project:** Devon Tom Cat 16 State 13

Sample ID: <b>Ics-58684</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>58684</b>	RunNo: <b>75902</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2685648</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	1.000	0	84.7	80	120			
Toluene	0.84	0.050	1.000	0	83.9	80	120			
Ethylbenzene	0.84	0.050	1.000	0	83.5	80	120			
Xylenes, Total	2.5	0.10	3.000	0	82.6	80	120			
Surr: 4-Bromofluorobenzene	0.87		1.000		86.6	80	120			

Sample ID: <b>mb-58684</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>58684</b>	RunNo: <b>75902</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2685649</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.85		1.000		84.5	80	120			

Sample ID: <b>2103565-004ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SP-9 Bottom 1.5ft</b>	Batch ID: <b>58684</b>	RunNo: <b>75902</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2686346</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9569	0	93.8	76.3	120			
Toluene	0.90	0.048	0.9569	0	94.6	78.5	120			
Ethylbenzene	0.90	0.048	0.9569	0	94.5	78.1	124			
Xylenes, Total	2.7	0.096	2.871	0	93.6	79.3	125			
Surr: 4-Bromofluorobenzene	0.80		0.9569		83.9	80	120			

Sample ID: <b>2103565-004amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SP-9 Bottom 1.5ft</b>	Batch ID: <b>58684</b>	RunNo: <b>75902</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2686347</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	0.9940	0	94.1	76.3	120	4.12	20	
Toluene	0.94	0.050	0.9940	0	94.1	78.5	120	3.31	20	
Ethylbenzene	0.93	0.050	0.9940	0	93.7	78.1	124	2.96	20	
Xylenes, Total	2.8	0.099	2.982	0	92.8	79.3	125	2.97	20	
Surr: 4-Bromofluorobenzene	0.85		0.9940		85.6	80	120	0	0	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2103565

16-Mar-21

**Client:** Safety & Environmental Solutions**Project:** Devon Tom Cat 16 State 13

Sample ID: <b>mb-58673</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>58673</b>	RunNo: <b>75901</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2686749</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		96.5	80	120			

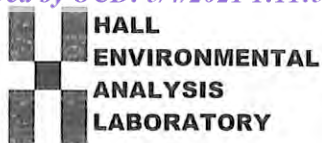
Sample ID: <b>LCS-58673</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>58673</b>	RunNo: <b>75901</b>								
Prep Date: <b>3/11/2021</b>	Analysis Date: <b>3/12/2021</b>	SeqNo: <b>2686750</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.7	80	120			
Toluene	0.90	0.050	1.000	0	90.2	80	120			
Ethylbenzene	0.90	0.050	1.000	0	90.4	80	120			
Xylenes, Total	2.7	0.10	3.000	0	89.6	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

## Sample Log-In Check List

Client Name: **Safety & Environmental Solutions**

Work Order Number: **2103565**

RcptNo: **1**

Received By: **Cheyenne Cason** **3/11/2021 7:30:00 AM**

Completed By: **Sean Livingston** **3/11/2021 9:01:03 AM**

Reviewed By: *[Signature]* **3/11/21**

*[Signature]*

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4"$  for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted?

Checked by: **DAD 3/11/21**

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good				

## Chain-of-Custody Record

Client: Safety & Environmental SolutionsMailing Address: 703 E. ClintonAlbuquerque NM 88740Phone #: 505-397-0510

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush 5 dayProject Name: DevonTom Cat 16 State 13

Project #:

DEV-16-001

Project Manager:

Allen, Bob

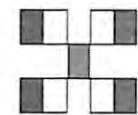
Sampler:

Sam JuneOn Ice: ☒ Yes ☐ No# of Coolers: 1Cooler Temp (including CF): 1.8 + 0.1 = 1.9 (°C)

Container Type and #

Preservative Type

HEAL No.

21035651Tap0011Dist.002100340041005100610071008100910101Date: 3/10 Time: 1500Relinquished by: Sam JuneDate: 3/10/21 Time: 1900Relinquished by: Sam JuneReceived by: Sam JuneDate: 3/10/21 Time: 1600Received by: Sam JuneDate: 3/11/2021 Time: 1600Received by: Sam JuneDate: 3/11/2021 Time: 1600Received by: Sam JuneDate: 3/11/2021 Time: 1600HALL ENVIRONMENTAL  
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

BTEX / MTBE / TMBs (8021)

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCBs

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

XXXXXXXXXXXXXXXXXXXXXXXXXXX

Remarks:

Incident ID	
District RP	
Facility ID	
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of 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 OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
Signature: Amanda T Davis Date: \_\_\_\_\_  
email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Brittany Hall Date: 10/12/2022

Printed Name: Brittany Hall Title: Environmental Specialist



**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 26849

**CONDITIONS**

Operator: Safety & Environmental Solutions, Inc. PO Box 1613 Hobbs, NM 88240	OGRID: 329088
	Action Number: 26849
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
bhall	Requires like approval from NMSLO.	10/12/2022