

Incident ID	NRM2008733329
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: Dale Woodall Title: Env. Professional  
Signature: Dale Woodall Date: 11/17/2022  
email: dale.woodall@dvn.com Telephone: 575-748-1838

**OCD Only**

Received by: OCD Date: 11/17/2022

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.

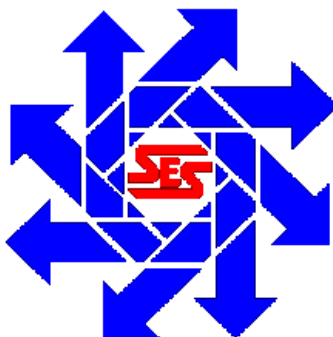
Closure Approved by: Ashley Maxwell Date: 2/08/2023  
Printed Name: Ashley Maxwell Title: Environmental Specialist

**Devon Energy Production Company  
Cotton Draw Unit 181 SWD**

**Closure Report  
UL H, Section 36, T24S, R31E  
Eddy County, New Mexico**

**NAB1530234949  
NAB1626756642  
NOY1701331626  
NAB1726355760  
NRM2003439614  
NRM2008733329**

**December 19, 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
Wesley Mathews	Devon Energy	575-578-6195	<a href="mailto:Wesley.Mathews@dvn.com">Wesley.Mathews@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 to perform a site assessment at the CDU 181 SWD concerning multiple historic releases of produced water in and outside of containment. This site is situated in Eddy County, Section 36, Township 24S, and Range 31E.

Releases at this location date back to February of 2015 and span to March of 2020. A total of 6 releases are contained in this report, and as they collectively were released on the site, they are addressed in total in this closure document separately.

SESI personnel performed an assessment of the site in July of 2020 based on generator knowledge of the leak locations. SESI personnel mapped the leak areas and performed delineation.

## Surface and Ground Water

Based on the NMOCD Oil and Gas map included in this report, surface water is not present within 3,000 feet of this release. The New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be 315' 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 for

**NAB1530234949, NAB1626756642, NAB1726355760, NRM2003439614, NRM2008733329**

Each of these incident numbers had some amount of release that was outside of containment. Many of them had the potential to impact soil, therefore, due to the historic nature of some of the releases, they were bundled together and approached as one much larger leak area for feasibility. In July of 2020, SESI personnel performed sampling to determine vertical extent of the releases. SESI advanced multiple auger holes within the leak area. The samples were properly packaged and preserved and sent to Hall Laboratories for analysis. The results of the testing are captured in the summary below:

Devon Energy CDU 181 SWD Soil Sample Results: Hall Environmental Laboratories 7/23/20								
SAMPLE ID	Chloride	GRO	DRO	MRO	Benzene	Toluene	Ethyl benzene	Total Xylenes
AH-1 H NORTH	200	ND	ND	85	ND	ND	ND	ND
AH-2 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-3 H WEST	340	ND	2600	2500	ND	ND	ND	ND
AH-4 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-5 SURFACE	68	ND	ND	ND	ND	ND	ND	ND
AH-6 H SOUTH	67	ND	ND	ND	ND	ND	ND	ND
AH-7 SURFACE	310	ND	ND	ND	ND	ND	ND	ND
AH-8 H SOUTH	ND	ND	ND	ND	ND	ND	ND	ND
AH-9 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-10 H SE	ND	ND	ND	ND	ND	ND	ND	ND
AH-11 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-12 SURFACE	230	ND	ND	ND	ND	ND	ND	ND
AH-13 SURFACE	120	ND	ND	ND	ND	ND	ND	ND
AH-14 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-15 SURFACE	67	ND	ND	ND	ND	ND	ND	ND
AH-16 SURFACE	200	ND	ND	ND	ND	ND	ND	ND
AH-17 SURFACE	200	ND	ND	ND	ND	ND	ND	ND
AH-18 H EAST	ND	ND	ND	ND	ND	ND	ND	ND
AH-19 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-22 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-21 SURFACE	81	ND	ND	ND	ND	ND	ND	ND
AH-24 SURFACE	430	ND	ND	ND	ND	ND	ND	ND
AH-24 @ 1'	79	ND	ND	ND	ND	ND	ND	ND
AH-23 H EAST	180	ND	ND	ND	ND	ND	ND	ND
AH-25 H NE	220	ND	ND	ND	ND	ND	ND	ND
AH-26 SURFACE	220	ND	ND	ND	ND	ND	ND	ND
AH-27 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-28 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-29 H NORTH	ND	ND	ND	ND	ND	ND	ND	ND
AH-30 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-31 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH-32 SURFACE	290	ND	ND	ND	ND	ND	ND	ND
AH-33 SURFACE	ND	ND	ND	ND	ND	ND	ND	ND

Further investigation was needed at the AH-1 H North sample point and the AH-3 H West sample point. Auger was advanced to 1' and resampled, the results are presented below.

Devon Energy CDU 181 SWD Soil Sample Results: Hall Environmental Laboratories 9/15/20								
SAMPLE ID	Chloride	GRO	DRO	MRO	Benzene	Toluene	Ethyl benzene	Total Xylenes
AH-1 H NORTH	ND	ND	ND	ND	ND	ND	ND	ND
AH-3 @ 1'	130	ND	ND	ND	ND	ND	ND	ND

## Remediation

Based on the results of the delineation, SESI, determined the best course of action is to excavate the contaminated soil to a depth of 1ft as practicable. The areas with appreciable DRO and MRO contamination were marked for excavation. In January of 2021, approximately 60 yds of contaminated material was removed via shovel or backhoe. Confirmation and horizontal samples were taken to ensure remediation was successful and that the horizontal extent of the release area had been established. The samples were properly preserved and packaged then sent to Hall Laboratories for analysis. The results of the sampling is captured in the table below.

Devon Energy CDU 181 SWD Soil Sample Results: Hall Environmental Laboratories 1/25/21								
SAMPLE ID	Chloride	GRO	DRO	MRO	Benzene	Toluene	Ethyl benzene	Total Xylenes
SP-1 BTM @ 1'	120	ND	ND	ND	ND	ND	ND	ND
SP-2 BTM @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
SP-3 BTM @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
SP-4 BTM @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
SP-5 N WALL	ND	ND	14	ND	ND	ND	ND	ND
SP-6 W WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-7 E WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-8 N WALL	ND	ND	ND	ND	ND	ND	ND	ND

Once sample results verified both successful remediation and horizontal extent, the site was backfilled with clean soil. Pictures of the remediation are included in this report.

### NOY1701331626

This release was completely contained inside of the SPCC. An initial 45 bbls of produced water was released, and a vacuum truck recovered all 45 bbls from the lined containment area. A visual liner inspection was subsequently performed with no deficiencies. No further remedial actions were needed, and this report shall serve as a closure request for this incident number as well.

## Closure Request

Based on the confirmation and horizontal 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 the following releases.

**NAB1530234949**  
**NAB1626756642**  
**NOY1701331626**  
**NAB1726355760**  
**NRM2003439614**  
**NRM2008733329**

Supplemental information has been included in this report to support our closure request.

### **Supplemental Documentation for Closure**


Map of Release with sample locations  
Photos of release and remediation  
NMOCD Oil and Gas Map  
BLM Cave Karst Map  
Laboratory Analysis  
C-141,

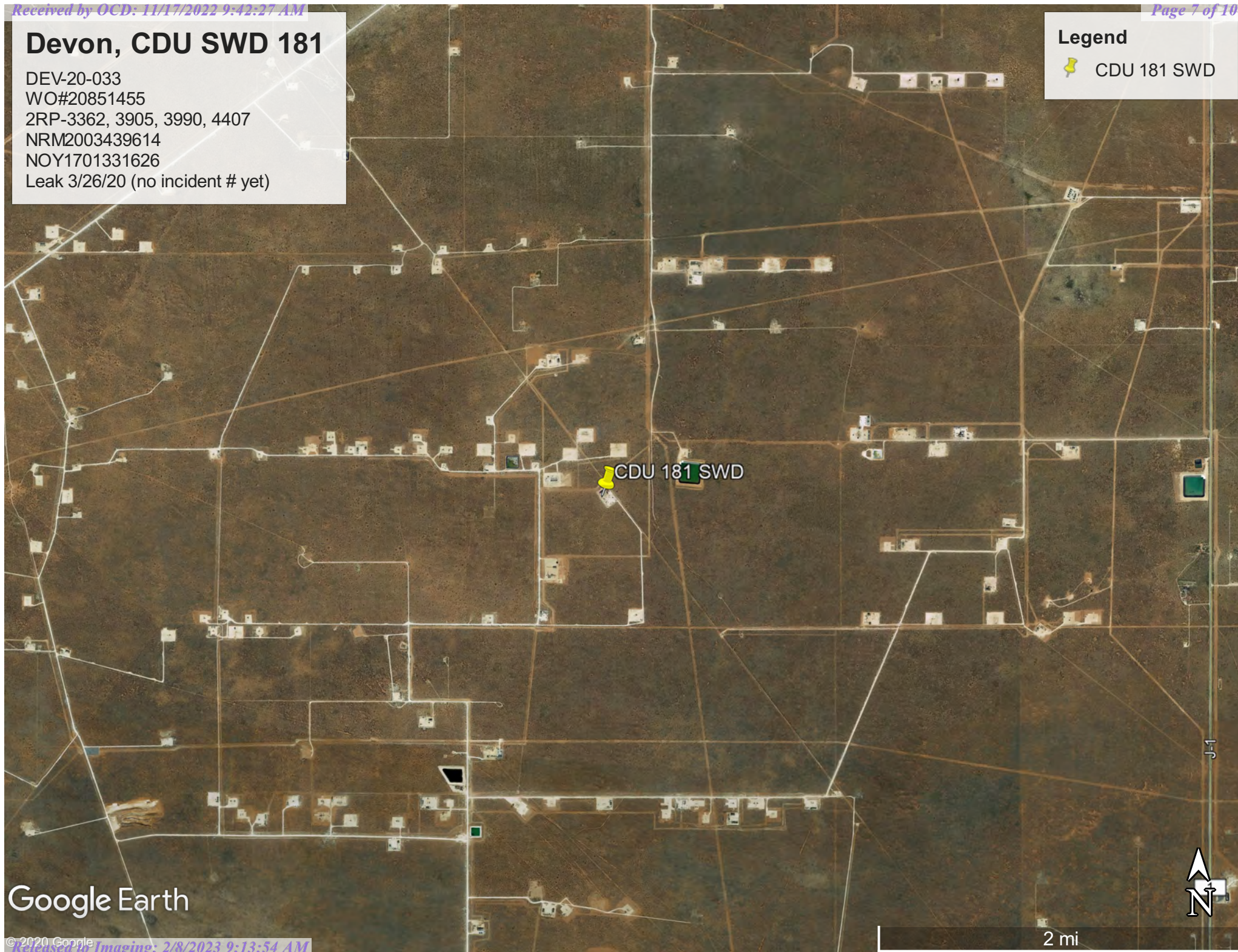


## Devon, CDU SWD 181

DEV-20-033  
WO#20851455  
2RP-3362, 3905, 3990, 4407  
NRM2003439614  
NOY1701331626  
Leak 3/26/20 (no incident # yet)

### Legend

 CDU 181 SWD



Google Earth



DEV-20-033

Legend

- Horizontal sample points
- Sample points







200 ft

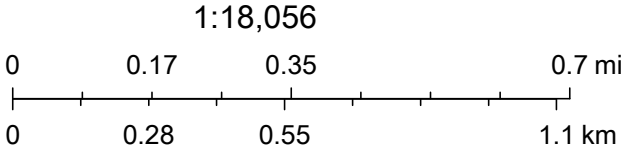


# OSE PUBLIC PRINT



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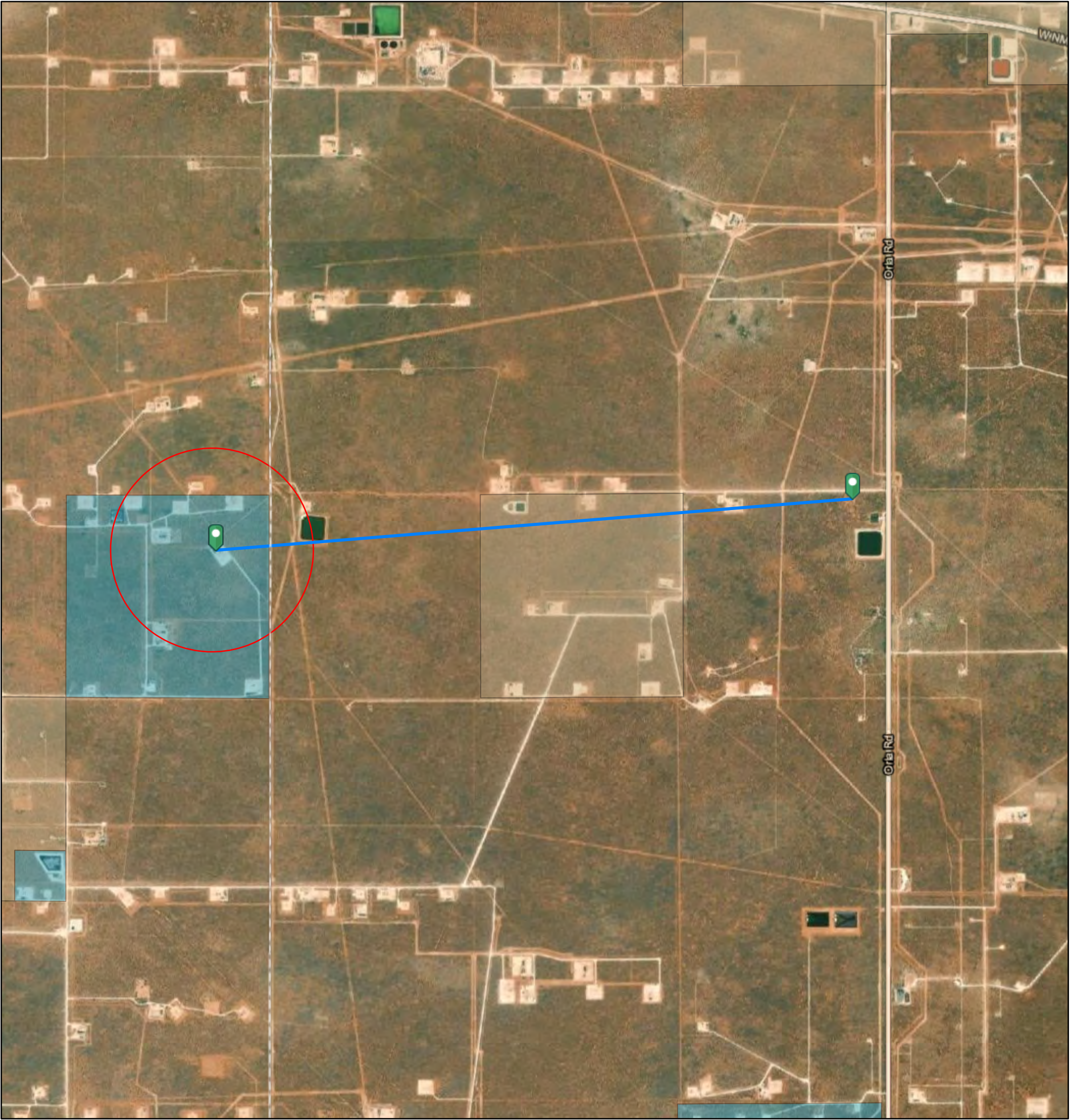
-  OSE District Boundary
- New Mexico State Trust Lands
-  Subsurface Estate
-  Both Estates
-  SiteBoundaries



Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC, Maxar

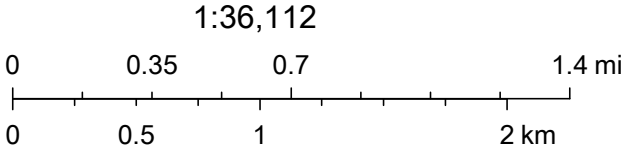


OSE PUBLIC PRINT



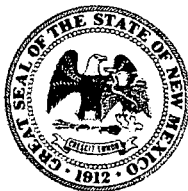
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- OSE District Boundary
- New Mexico State Trust Lands
- Subsurface Estate
- Both Estates
- SiteBoundaries



Esri, HERE, Garmin, Esri, HERE, U.S. Department of Energy Office of Legacy Management, Maxar





# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

OSE DTI JUL 9 2021 PM 1:52

OSE DTI JUN 21 2021 PM 10:14

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) <b>C-4536-POD 1</b>		WELL TAG ID NO. 20E37		OSE FILE NO(S) C-4536 ✓			
	WELL OWNER NAME(S) BASIN PROPERTIES RANCHES LLC				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 3300 N A STREET, BLDG 1, STE 220				CITY MIDLAND	STATE TX		
					ZIP 79705			
2. DRILLING & CASING INFORMATION	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 10	SECONDS 50.8 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE 103	40	25.9 W	* DATUM REQUIRED: WGS 84			
	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE							
3. ANNULAR MATERIAL	LICENSE NO. WD1706		NAME OF LICENSED DRILLER Bryce Wallace		NAME OF WELL DRILLING COMPANY Elite Drillers Corporation			
	DRILLING STARTED 06/09/21		DRILLING ENDED 06/10/21		DEPTH OF COMPLETED WELL (FT) 500			
			BORE HOLE DEPTH (FT) 500		DEPTH WATER FIRST ENCOUNTERED (FT) 314			
	COMPLETED WELL IS:		<input type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input checked="" type="checkbox"/> SHALLOW (UNCONFINED)		STATIC WATER LEVEL IN COMPLETED WELL (FT) 314			
	DRILLING FLUID:		<input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD		ADDITIVES - SPECIFY:			
	DRILLING METHOD:		<input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:					
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	
	FROM	TO					SLOT SIZE (inches)	
	0	20	12 3/4	STEEL	N/A	8.28	.337	
	0	300	7 7/8	SDR17 PVC	SPLINE	4.3	SDR17	
300	500	7 7/8	SDR17 PVC	SPLINE	4.3	SDR17	.032	
DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT			
FROM	TO							
0	20	12 3/4	CEMENT	10	TOP FILL			
0	20	7 7/8	CEMENT	6	TOP FILL			
300	500	7 7/8	8/16 SILICA SAND	46	TOP FILL			

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. <b>C-4536-POD 1</b>	POD NO. <b>1</b>	TRN NO. <b>695378</b>
LOCATION <b>STK 24.32.33.122</b>	WELL TAG ID NO. <b>20E37</b>	PAGE 1 OF 2

05E DJJ JUL 9 2021 PM1:53

DSE DTI JUN 21 2021 RM10:14

	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES <small>(attach supplemental sheets to fully describe all units)</small>	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
	FROM	TO				
<b>4. HYDROGEOLOGIC LOG OF WELL</b>	0	3	3	RED SAND	Y ✓ N	
	3	12	9	CALICHE	Y ✓ N	
	12	180	168	RED CLAY	Y ✓ N	
	180	235	415	TAN SANDSTONE	Y ✓ N	
	235	480	245	TAN SANDSTONE & CLAY STRINGERS	✓ Y N	4.00
	480	500	20	RED CLAY WITH SAND STRINGERS	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input checked="" type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER – SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 4.00
<b>5. TEST; RIG SUPERVISION</b>	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	MISCELLANEOUS INFORMATION:					
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:						
<b>6. SIGNATURE</b>	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:					
				Bryce Wallace	06/16/2021	
SIGNATURE OF DRILLER / PRINT SIGNEE NAME				DATE		

FOR USE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 06/30/2017)

FILE NO. C-4536-FOA

POD NO. 1

TRN NO. 1695378

LOCATION STK - 24.32.33.122

WELL TAG ID NO. 20E37

PAGE 2 OF 2

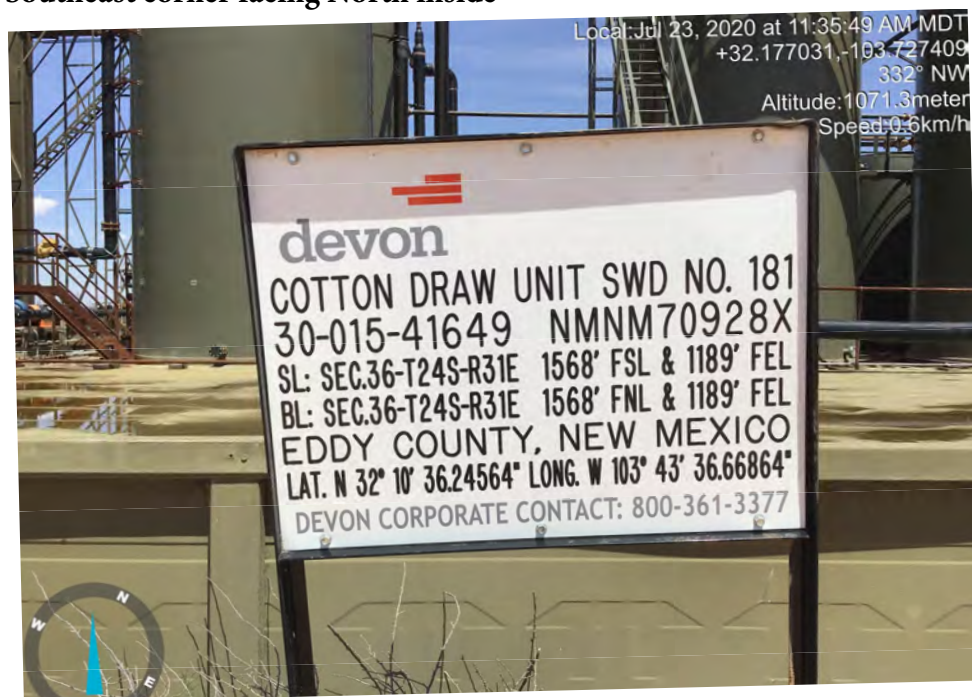




Southeast corner facing North inside



Southeast corner facing West inside



Location sign facing West

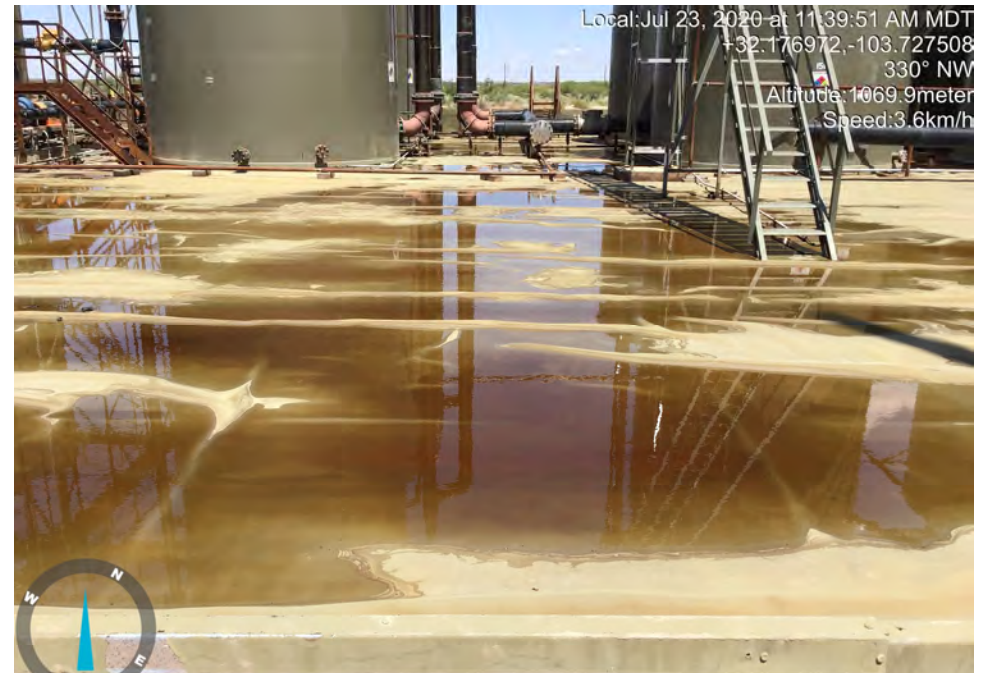


Southeast corner facing North inside





East side facing West inside



East side facing West inside



Southeast corner facing West outside



East side facing West inside

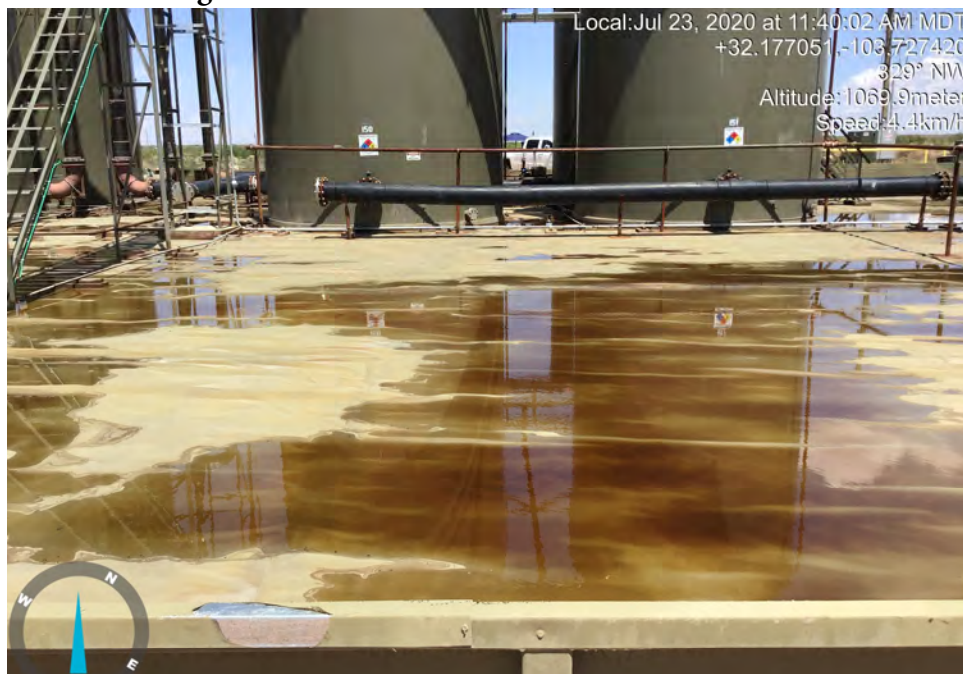




East side facing West inside



Northeast corner facing South inside



East side facing West inside



East side facing west inside





Northeast corner facing West inside



North side facing South inside



Northeast corner facing South outside



Northeast corner facing West inside





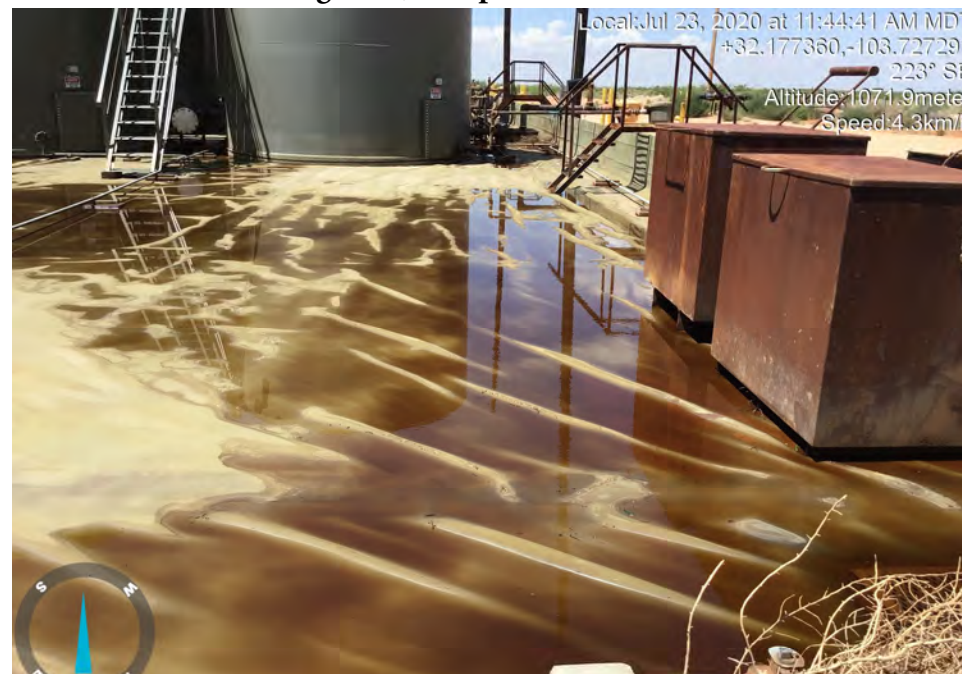
North side facing South inside



Northeast corner facing East , Sump with water



North side facing South inside



North side facing South inside





Northeast corner facing South outside



West side facing East inside

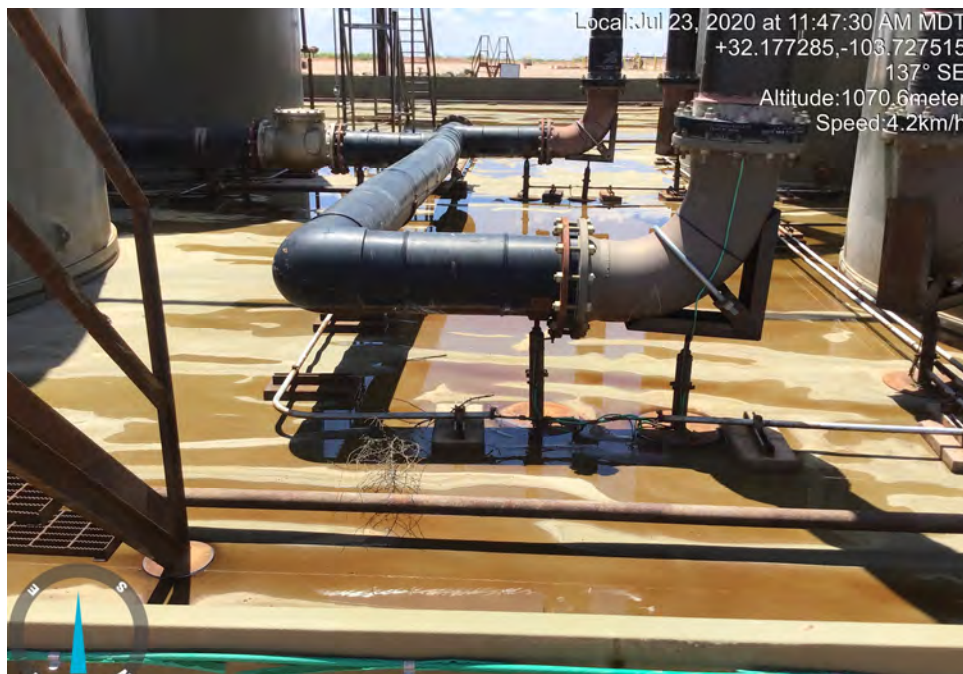


Northwest corner facing South inside



West side facing East inside





West side facing East inside



Southwest corner facing North inside



West side facing East inside



West side facing East inside





Southwest corner facing East inside



Southeast corner sump facing East (water)



Southwest corner facing North outside



Southwest corner facing east outside





West side inside (pump#1), patch unglued



East side, inside pump#3, liner patch unglued



Inside center facing Southwest



Inside center facing Northeast





East side, outside of liner (oil dump)



Inside facing Southwest (chemical and water mix)



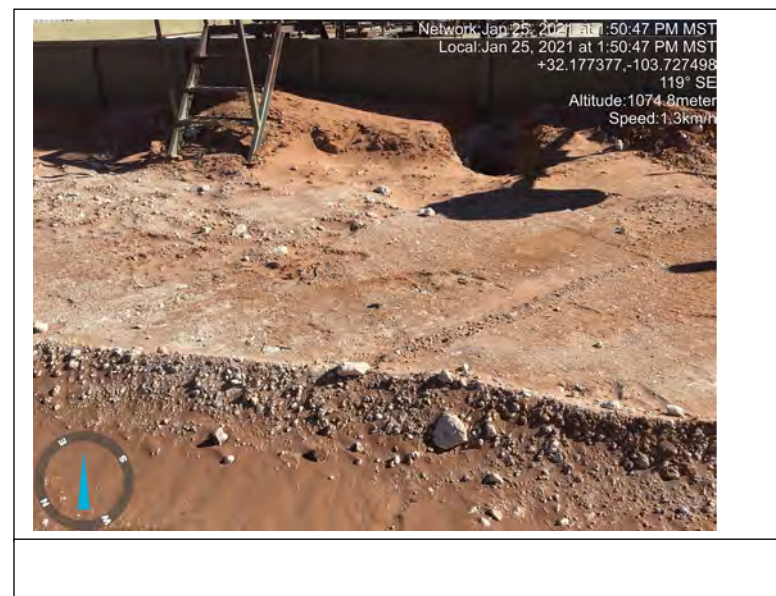
East side, outside of liner, oil stain (not liner leak), oil dump



East side, outside of liner (oil dump)



## Devon Energy – Cotton Draw Unit 181 SWD Excavation & Remediation





## Devon Energy – Cotton Draw Unit 181 SWD Excavation & Remediation





## Devon Energy – Cotton Draw Unit 181 SWD Excavation & Remediation







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)

February 01, 2021

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

RE: Cofitton Draw 181 SWD

OrderNo.: 2101967

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/27/2021 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 2101967

Date Reported: 2/1/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-1 1ft Bottom

Project: Cofitton Draw 181 SWD

Collection Date: 1/25/2021 10:15:00 AM

Lab ID: 2101967-001

Matrix: SOIL

Received Date: 1/27/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	120	60		mg/Kg	20	1/29/2021 7:12:25 PM	57808
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/28/2021 10:46:12 AM	57769
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/28/2021 10:46:12 AM	57769
Surr: DNOP	127	30.4-154		%Rec	1	1/28/2021 10:46:12 AM	57769
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/29/2021 1:15:18 PM	57765
Surr: BFB	96.2	75.3-105		%Rec	1	1/29/2021 1:15:18 PM	57765
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	1/29/2021 1:15:18 PM	57765
Toluene	ND	0.047		mg/Kg	1	1/29/2021 1:15:18 PM	57765
Ethylbenzene	ND	0.047		mg/Kg	1	1/29/2021 1:15:18 PM	57765
Xylenes, Total	ND	0.094		mg/Kg	1	1/29/2021 1:15:18 PM	57765
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	1/29/2021 1:15:18 PM	57765

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 2101967

Date Reported: 2/1/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-2 1ft Bottom

Project: Cofitton Draw 181 SWD

Collection Date: 1/25/2021 10:30:00 AM

Lab ID: 2101967-002

Matrix: SOIL

Received Date: 1/27/2021 7:35:00 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	1/29/2021 8:14:27 PM	57808
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/28/2021 11:57:29 AM	57769
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/28/2021 11:57:29 AM	57769
Surr: DNOP	142	30.4-154		%Rec	1	1/28/2021 11:57:29 AM	57769
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/29/2021 2:26:12 PM	57765
Surr: BFB	97.4	75.3-105		%Rec	1	1/29/2021 2:26:12 PM	57765
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	1/29/2021 2:26:12 PM	57765
Toluene	ND	0.048		mg/Kg	1	1/29/2021 2:26:12 PM	57765
Ethylbenzene	ND	0.048		mg/Kg	1	1/29/2021 2:26:12 PM	57765
Xylenes, Total	ND	0.096		mg/Kg	1	1/29/2021 2:26:12 PM	57765
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/29/2021 2:26:12 PM	57765

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 2101967

Date Reported: 2/1/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-3 1ft Bottom

Project: Cofitton Draw 181 SWD

Collection Date: 1/25/2021 11:20:00 AM

Lab ID: 2101967-003

Matrix: SOIL

Received Date: 1/27/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	59		mg/Kg	20	1/29/2021 8:51:39 PM	57808
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	1/28/2021 12:21:18 PM	57769
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/28/2021 12:21:18 PM	57769
Surr: DNOP	144	30.4-154		%Rec	1	1/28/2021 12:21:18 PM	57769
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/29/2021 3:37:29 PM	57765
Surr: BFB	97.3	75.3-105		%Rec	1	1/29/2021 3:37:29 PM	57765
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.023		mg/Kg	1	1/29/2021 3:37:29 PM	57765
Toluene	ND	0.047		mg/Kg	1	1/29/2021 3:37:29 PM	57765
Ethylbenzene	ND	0.047		mg/Kg	1	1/29/2021 3:37:29 PM	57765
Xylenes, Total	ND	0.094		mg/Kg	1	1/29/2021 3:37:29 PM	57765
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	1/29/2021 3:37:29 PM	57765

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 2101967

Date Reported: 2/1/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-4 1ft Bottom

Project: Cofitton Draw 181 SWD

Collection Date: 1/25/2021 1:40:00 PM

Lab ID: 2101967-004

Matrix: SOIL

Received Date: 1/27/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	59		mg/Kg	20	1/29/2021 9:04:04 PM	57808
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/28/2021 12:45:06 PM	57769
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/28/2021 12:45:06 PM	57769
Surr: DNOP	145	30.4-154		%Rec	1	1/28/2021 12:45:06 PM	57769
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/29/2021 4:01:18 PM	57765
Surr: BFB	100	75.3-105		%Rec	1	1/29/2021 4:01:18 PM	57765
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	1/29/2021 4:01:18 PM	57765
Toluene	ND	0.050		mg/Kg	1	1/29/2021 4:01:18 PM	57765
Ethylbenzene	ND	0.050		mg/Kg	1	1/29/2021 4:01:18 PM	57765
Xylenes, Total	ND	0.10		mg/Kg	1	1/29/2021 4:01:18 PM	57765
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/29/2021 4:01:18 PM	57765

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 2101967

Date Reported: 2/1/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-5 North Wall

Project: Cofitton Draw 181 SWD

Collection Date: 1/25/2021 1:15:00 PM

Lab ID: 2101967-005

Matrix: SOIL

Received Date: 1/27/2021 7:35:00 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	1/29/2021 9:16:29 PM	57808
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	14	8.5		mg/Kg	1	1/28/2021 5:23:32 PM	57769
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	1/28/2021 5:23:32 PM	57769
Surr: DNOP	151	30.4-154		%Rec	1	1/28/2021 5:23:32 PM	57769
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/29/2021 4:25:09 PM	57765
Surr: BFB	99.6	75.3-105		%Rec	1	1/29/2021 4:25:09 PM	57765
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.023		mg/Kg	1	1/29/2021 4:25:09 PM	57765
Toluene	ND	0.046		mg/Kg	1	1/29/2021 4:25:09 PM	57765
Ethylbenzene	ND	0.046		mg/Kg	1	1/29/2021 4:25:09 PM	57765
Xylenes, Total	ND	0.092		mg/Kg	1	1/29/2021 4:25:09 PM	57765
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/29/2021 4:25:09 PM	57765

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 2101967

Date Reported: 2/1/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-6 West Wall

Project: Cofitton Draw 181 SWD

Collection Date: 1/25/2021 2:05:00 PM

Lab ID: 2101967-006

Matrix: SOIL

Received Date: 1/27/2021 7:35:00 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	1/29/2021 9:28:54 PM	57808
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/28/2021 1:32:50 PM	57769
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/28/2021 1:32:50 PM	57769
Surr: DNOP	159	30.4-154	S	%Rec	1	1/28/2021 1:32:50 PM	57769
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/29/2021 4:49:03 PM	57765
Surr: BFB	97.8	75.3-105		%Rec	1	1/29/2021 4:49:03 PM	57765
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	1/29/2021 4:49:03 PM	57765
Toluene	ND	0.047		mg/Kg	1	1/29/2021 4:49:03 PM	57765
Ethylbenzene	ND	0.047		mg/Kg	1	1/29/2021 4:49:03 PM	57765
Xylenes, Total	ND	0.094		mg/Kg	1	1/29/2021 4:49:03 PM	57765
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	1/29/2021 4:49:03 PM	57765

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 2101967

Date Reported: 2/1/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-7 East Wall

Project: Cofitton Draw 181 SWD

Collection Date: 1/25/2021 11:00:00 AM

Lab ID: 2101967-007

Matrix: SOIL

Received Date: 1/27/2021 7:35:00 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	1/29/2021 9:41:19 PM	57808
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/28/2021 1:56:48 PM	57769
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/28/2021 1:56:48 PM	57769
Surr: DNOP	140	30.4-154		%Rec	1	1/28/2021 1:56:48 PM	57769
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/29/2021 5:12:56 PM	57765
Surr: BFB	99.9	75.3-105		%Rec	1	1/29/2021 5:12:56 PM	57765
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	1/29/2021 5:12:56 PM	57765
Toluene	ND	0.048		mg/Kg	1	1/29/2021 5:12:56 PM	57765
Ethylbenzene	ND	0.048		mg/Kg	1	1/29/2021 5:12:56 PM	57765
Xylenes, Total	ND	0.096		mg/Kg	1	1/29/2021 5:12:56 PM	57765
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	1/29/2021 5:12:56 PM	57765

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 2101967

Date Reported: 2/1/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: SP-8 North Wall

Project: Cofitton Draw 181 SWD

Collection Date: 1/25/2021 11:55:00 AM

Lab ID: 2101967-008

Matrix: SOIL

Received Date: 1/27/2021 7:35:00 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	1/29/2021 9:53:43 PM	57808
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	1/28/2021 2:20:45 PM	57769
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	1/28/2021 2:20:45 PM	57769
Surr: DNOP	147	30.4-154		%Rec	1	1/28/2021 2:20:45 PM	57769
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/29/2021 7:35:47 PM	57765
Surr: BFB	99.7	75.3-105		%Rec	1	1/29/2021 7:35:47 PM	57765
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.023		mg/Kg	1	1/29/2021 7:35:47 PM	57765
Toluene	ND	0.047		mg/Kg	1	1/29/2021 7:35:47 PM	57765
Ethylbenzene	ND	0.047		mg/Kg	1	1/29/2021 7:35:47 PM	57765
Xylenes, Total	ND	0.094		mg/Kg	1	1/29/2021 7:35:47 PM	57765
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/29/2021 7:35:47 PM	57765

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#: 2101967  
01-Feb-21

Client: Safety & Environmental Solutions  
Project: Cofitton Draw 181 SWD

Sample ID: MB-57808	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 57808	RunNo: 74942
Prep Date: 1/29/2021	Analysis Date: 1/29/2021	SeqNo: 2645957 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-57808	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 57808	RunNo: 74942
Prep Date: 1/29/2021	Analysis Date: 1/29/2021	SeqNo: 2645958 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	15	1.5 15.00 0 98.7 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#: 2101967

01-Feb-21

**Client:** Safety & Environmental Solutions**Project:** Coftton Draw 181 SWD

Sample ID: <b>MB-57769</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>57769</b>	RunNo: <b>74917</b>								
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/28/2021</b>	SeqNo: <b>2644531</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	13		10.00		132	30.4	154			

Sample ID: <b>LCS-57769</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>57769</b>	RunNo: <b>74917</b>								
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/28/2021</b>	SeqNo: <b>2644533</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	67	10	50.00	0	133	68.9	141			
Surr: DNOP	6.5		5.000		130	30.4	154			

Sample ID: <b>2101967-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>SP-1 1ft Bottom</b>	Batch ID: <b>57769</b>	RunNo: <b>74917</b>								
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/28/2021</b>	SeqNo: <b>2644534</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	9.1	45.54	0	127	15	184			
Surr: DNOP	5.8		4.554		128	30.4	154			

Sample ID: <b>2101967-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>SP-1 1ft Bottom</b>	Batch ID: <b>57769</b>	RunNo: <b>74917</b>								
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/28/2021</b>	SeqNo: <b>2644535</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	9.0	44.76	0	135	15	184	4.58	23.9	
Surr: DNOP	6.1		4.476		136	30.4	154	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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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2101967

01-Feb-21

**Client:** Safety & Environmental Solutions**Project:** Coftton Draw 181 SWD

Sample ID: <b>ics-57765</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>57765</b>		RunNo: <b>74945</b>							
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/29/2021</b>		SeqNo: <b>2645737</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.9	80	120			
Surr: BFB	1100		1000		107	75.3	105			S

Sample ID: <b>mb-57765</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>57765</b>		RunNo: <b>74945</b>							
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/29/2021</b>		SeqNo: <b>2645738</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	960		1000		95.8	75.3	105			

Sample ID: <b>2101967-002ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>SP-2 1ft Bottom</b>	Batch ID: <b>57765</b>		RunNo: <b>74945</b>							
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/29/2021</b>		SeqNo: <b>2646037</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.32	0	105	61.3	114			
Surr: BFB	1100		972.8		111	75.3	105			S

Sample ID: <b>2101967-002amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>SP-2 1ft Bottom</b>	Batch ID: <b>57765</b>		RunNo: <b>74945</b>							
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/29/2021</b>		SeqNo: <b>2646038</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.8	24.08	0	101	61.3	114	4.39	20	
Surr: BFB	1000		963.4		109	75.3	105	0	0	S

Sample ID: <b>ics-57723</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>57723</b>		RunNo: <b>74945</b>							
Prep Date: <b>1/25/2021</b>	Analysis Date: <b>1/30/2021</b>		SeqNo: <b>2646074</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		107	75.3	105			S

Sample ID: <b>mb-57723</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>57723</b>		RunNo: <b>74945</b>							
Prep Date: <b>1/25/2021</b>	Analysis Date: <b>1/30/2021</b>		SeqNo: <b>2646078</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		94.6	75.3	105			

**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#: 2101967

01-Feb-21

**Client:** Safety & Environmental Solutions**Project:** Coftton Draw 181 SWD

Sample ID: <b>LCS-57765</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>57765</b>	RunNo: <b>74945</b>								
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/29/2021</b>	SeqNo: <b>2645742</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.9	80	120			
Toluene	0.99	0.050	1.000	0	98.8	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.6	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: <b>mb-57765</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>57765</b>	RunNo: <b>74945</b>								
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/29/2021</b>	SeqNo: <b>2645743</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		99.2	80	120			

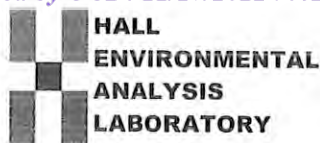
Sample ID: <b>2101967-001ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SP-1 1ft Bottom</b>	Batch ID: <b>57765</b>	RunNo: <b>74945</b>								
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/29/2021</b>	SeqNo: <b>2646088</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.024	0.9597	0	96.4	76.3	120			
Toluene	0.95	0.048	0.9597	0	98.7	78.5	120			
Ethylbenzene	0.96	0.048	0.9597	0	99.8	78.1	124			
Xylenes, Total	2.9	0.096	2.879	0	99.4	79.3	125			
Surr: 4-Bromofluorobenzene	0.98		0.9597		102	80	120			

Sample ID: <b>2101967-001amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SP-1 1ft Bottom</b>	Batch ID: <b>57765</b>	RunNo: <b>74945</b>								
Prep Date: <b>1/27/2021</b>	Analysis Date: <b>1/29/2021</b>	SeqNo: <b>2646089</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9756	0	93.0	76.3	120	1.99	20	
Toluene	0.93	0.049	0.9756	0	95.0	78.5	120	2.20	20	
Ethylbenzene	0.92	0.049	0.9756	0	94.5	78.1	124	3.78	20	
Xylenes, Total	2.8	0.098	2.927	0	94.7	79.3	125	3.19	20	
Surr: 4-Bromofluorobenzene	1.0		0.9756		102	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



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 S**Work Order Number: **2101967**

RcptNo: 1

Received By: **Isaiah Ortiz**

1/27/2021 7:35:00 AM

I-OK

Completed By: **Isaiah Ortiz**

1/27/2021 8:41:10 AM

I-OK

Reviewed By: **SR 1/27/21**

### 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: **SGC 1/27/21**

### 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	3.1	Good	Not Present			







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)

September 25, 2020

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

RE: Devon Cotton Draw 181 SWD

OrderNo.: 2009B07

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/18/2020 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 2009B07

Date Reported: 9/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-3 1ft

Project: Devon Cotton Draw 181 SWD

Collection Date: 9/15/2020 9:55:00 AM

Lab ID: 2009B07-001

Matrix: SOIL

Received Date: 9/18/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	130	60		mg/Kg	20	9/25/2020 2:34:41 AM	55435
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/22/2020 6:20:39 PM	55318
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/22/2020 6:20:39 PM	55318
Surr: DNOP	144	30.4-154		%Rec	1	9/22/2020 6:20:39 PM	55318
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/23/2020 4:01:24 AM	55300
Surr: BFB	89.4	75.3-105		%Rec	1	9/23/2020 4:01:24 AM	55300
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	9/23/2020 4:01:24 AM	55300
Toluene	ND	0.048		mg/Kg	1	9/23/2020 4:01:24 AM	55300
Ethylbenzene	ND	0.048		mg/Kg	1	9/23/2020 4:01:24 AM	55300
Xylenes, Total	ND	0.096		mg/Kg	1	9/23/2020 4:01:24 AM	55300
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	9/23/2020 4:01:24 AM	55300

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 2009B07

Date Reported: 9/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: H- North

Project: Devon Cotton Draw 181 SWD

Collection Date: 9/15/2020 11:30:00 AM

Lab ID: 2009B07-002

Matrix: SOIL

Received Date: 9/18/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	9/25/2020 2:47:06 AM	55435
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/22/2020 6:30:42 PM	55318
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/22/2020 6:30:42 PM	55318
Surr: DNOP	126	30.4-154		%Rec	1	9/22/2020 6:30:42 PM	55318
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/23/2020 4:24:48 AM	55300
Surr: BFB	87.4	75.3-105		%Rec	1	9/23/2020 4:24:48 AM	55300
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	9/23/2020 4:24:48 AM	55300
Toluene	ND	0.048		mg/Kg	1	9/23/2020 4:24:48 AM	55300
Ethylbenzene	ND	0.048		mg/Kg	1	9/23/2020 4:24:48 AM	55300
Xylenes, Total	ND	0.097		mg/Kg	1	9/23/2020 4:24:48 AM	55300
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/23/2020 4:24:48 AM	55300

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#: **2009B07****25-Sep-20****Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>MB-55435</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>55435</b>	RunNo: <b>72148</b>								
Prep Date: <b>9/24/2020</b>	Analysis Date: <b>9/24/2020</b>	SeqNo: <b>2529091</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-55435</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>55435</b>	RunNo: <b>72148</b>								
Prep Date: <b>9/24/2020</b>	Analysis Date: <b>9/24/2020</b>	SeqNo: <b>2529092</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	92.4	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 3 of 6

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

WO#: 2009B07

25-Sep-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>LCS-55318</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>55318</b>			RunNo: <b>72063</b>						
Prep Date: <b>9/21/2020</b>	Analysis Date: <b>9/22/2020</b>			SeqNo: <b>2524682</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	10	50.00	0	119	70	130			
Surr: DNOP	3.7		5.000		74.6	30.4	154			

Sample ID: <b>LCS-55322</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>55322</b>			RunNo: <b>72063</b>						
Prep Date: <b>9/21/2020</b>	Analysis Date: <b>9/22/2020</b>			SeqNo: <b>2524684</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		5.000		80.5	30.4	154			

Sample ID: <b>LCS-55325</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>55325</b>			RunNo: <b>72063</b>						
Prep Date: <b>9/21/2020</b>	Analysis Date: <b>9/23/2020</b>			SeqNo: <b>2524685</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		92.7	30.4	154			

Sample ID: <b>MB-55318</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>55318</b>			RunNo: <b>72063</b>						
Prep Date: <b>9/21/2020</b>	Analysis Date: <b>9/22/2020</b>			SeqNo: <b>2524687</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	7.2		10.00		72.3	30.4	154			

Sample ID: <b>MB-55322</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>55322</b>			RunNo: <b>72063</b>						
Prep Date: <b>9/21/2020</b>	Analysis Date: <b>9/22/2020</b>			SeqNo: <b>2524688</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.6		10.00		86.2	30.4	154			

Sample ID: <b>MB-55325</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>55325</b>			RunNo: <b>72063</b>						
Prep Date: <b>9/21/2020</b>	Analysis Date: <b>9/22/2020</b>			SeqNo: <b>2524689</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		90.9	30.4	154			

**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 4 of 6



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

WO#: 2009B07

25-Sep-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>mb-55300</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>55300</b>	RunNo: <b>72044</b>								
Prep Date: <b>9/21/2020</b>	Analysis Date: <b>9/23/2020</b>	SeqNo: <b>2523843</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	850		1000		84.9	75.3	105			

Sample ID: <b>lcs-55300</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>55300</b>	RunNo: <b>72044</b>								
Prep Date: <b>9/21/2020</b>	Analysis Date: <b>9/22/2020</b>	SeqNo: <b>2523844</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	72.5	106			
Surr: BFB	960		1000		96.0	75.3	105			

**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#: **2009B07**

25-Sep-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>mb-55300</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>55300</b>	RunNo: <b>72044</b>								
Prep Date: <b>9/21/2020</b>	Analysis Date: <b>9/23/2020</b>	SeqNo: <b>2523891</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	1.0		1.000		102	80	120			

Sample ID: <b>LCS-55300</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>55300</b>	RunNo: <b>72044</b>								
Prep Date: <b>9/21/2020</b>	Analysis Date: <b>9/22/2020</b>	SeqNo: <b>2523892</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.2	80	120			
Toluene	0.92	0.050	1.000	0	91.6	80	120			
Ethylbenzene	0.93	0.050	1.000	0	92.8	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	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: 2009B07

RcptNo: 1

Received By: **Cheyenne Cason** 9/18/2020 8:00:00 AM

Completed By: **Juan Rojas** 9/18/2020 10:19:04 AM

Reviewed By: *em 9/18/20*

### 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: \_\_\_\_\_  
( $\leq 2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: *em 9/18/20*

### 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: \_\_\_\_\_

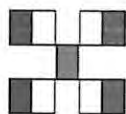
16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.0	Good				

Chain-of-Custody Record									
Client:		Safety + Environmental Solutions							
Mailing Address:		703 E. Clinton Koblesville, MO 64080							
Phone #:		575-397-0510							
email or Fax#:									
QA/QC Package:		<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation) <input type="checkbox"/> Accreditation: <input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other <input type="checkbox"/> EDD (Type)							
Turn-Around Time:		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush Project Name: <u>Devon Cotton Arw 181 SWD</u> Project #: <u>DEV-20-033</u> Project Manager: <u>Allen Bob</u>							
Sampler:		<u>Seon-jung</u>							
On Ice:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No # of Coolers: <u>1</u>							
Cooler Temp (including CF):		<u>4.91-0.1-5.0</u> (°C) Container Type and #      Preservative Type      HEAL No. <u>1</u> <u>Ice</u> <u>70091807</u> <u>1</u> <u>-001</u> <u>-002</u>							
Date:		Time:		Relinquished by:		Date:		Time:	
9/17/2020		0455		Seon-jung		9/17/20		1300	
Date:		Time:		Relinquished by:		Date:		Time:	

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**

[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 to Devon

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

August 05, 2020

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

RE: Devon Cotton Draw 181 SWD

OrderNo.: 2007E37

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 33 sample(s) on 7/29/2020 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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-1 H-North

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/23/2020 11:55:00 AM

Lab ID: 2007E37-001

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	200	60		mg/Kg	20	8/3/2020 4:26:15 PM	54133
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/31/2020 4:33:24 AM	54042
Surr: BFB	100	70-130		%Rec	1	7/31/2020 4:33:24 AM	54042
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	8/3/2020 4:53:43 PM	54043
Motor Oil Range Organics (MRO)	85	47		mg/Kg	1	8/3/2020 4:53:43 PM	54043
Surr: DNOP	117	30.4-154		%Rec	1	8/3/2020 4:53:43 PM	54043
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	7/31/2020 4:33:24 AM	54042
Toluene	ND	0.048		mg/Kg	1	7/31/2020 4:33:24 AM	54042
Ethylbenzene	ND	0.048		mg/Kg	1	7/31/2020 4:33:24 AM	54042
Xylenes, Total	ND	0.095		mg/Kg	1	7/31/2020 4:33:24 AM	54042
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	7/31/2020 4:33:24 AM	54042
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	7/31/2020 4:33:24 AM	54042
Surr: Dibromofluoromethane	111	70-130		%Rec	1	7/31/2020 4:33:24 AM	54042
Surr: Toluene-d8	97.4	70-130		%Rec	1	7/31/2020 4:33:24 AM	54042

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-2 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/23/2020 12:40:00 PM

Lab ID: 2007E37-002

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 3:26:27 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/31/2020 9:55:39 AM	54047
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/31/2020 9:55:39 AM	54047
Surr: DNOP	103	30.4-154		%Rec	1	7/31/2020 9:55:39 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/31/2020 8:41:20 PM	54044
Surr: BFB	96.3	75.3-105		%Rec	1	7/31/2020 8:41:20 PM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	7/31/2020 8:41:20 PM	54044
Toluene	ND	0.047		mg/Kg	1	7/31/2020 8:41:20 PM	54044
Ethylbenzene	ND	0.047		mg/Kg	1	7/31/2020 8:41:20 PM	54044
Xylenes, Total	ND	0.094		mg/Kg	1	7/31/2020 8:41:20 PM	54044
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	7/31/2020 8:41:20 PM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-3 H-West

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/23/2020 1:25:00 PM

Lab ID: 2007E37-003

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	340	60		mg/Kg	20	8/3/2020 4:28:29 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	2600	47		mg/Kg	5	7/31/2020 10:25:54 AM	54047
Motor Oil Range Organics (MRO)	2500	230		mg/Kg	5	7/31/2020 10:25:54 AM	54047
Surr: DNOP	309	30.4-154	S	%Rec	5	7/31/2020 10:25:54 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/31/2020 9:51:32 PM	54044
Surr: BFB	94.1	75.3-105		%Rec	1	7/31/2020 9:51:32 PM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	7/31/2020 9:51:32 PM	54044
Toluene	ND	0.048		mg/Kg	1	7/31/2020 9:51:32 PM	54044
Ethylbenzene	ND	0.048		mg/Kg	1	7/31/2020 9:51:32 PM	54044
Xylenes, Total	ND	0.096		mg/Kg	1	7/31/2020 9:51:32 PM	54044
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	7/31/2020 9:51:32 PM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-4 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/23/2020 2:15:00 PM

Lab ID: 2007E37-004

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 5:05:44 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/31/2020 10:35:59 AM	54047
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/31/2020 10:35:59 AM	54047
Surr: DNOP	121	30.4-154		%Rec	1	7/31/2020 10:35:59 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/31/2020 11:01:43 PM	54044
Surr: BFB	96.7	75.3-105		%Rec	1	7/31/2020 11:01:43 PM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	7/31/2020 11:01:43 PM	54044
Toluene	ND	0.046		mg/Kg	1	7/31/2020 11:01:43 PM	54044
Ethylbenzene	ND	0.046		mg/Kg	1	7/31/2020 11:01:43 PM	54044
Xylenes, Total	ND	0.092		mg/Kg	1	7/31/2020 11:01:43 PM	54044
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/31/2020 11:01:43 PM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-5 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 9:15:00 AM

Lab ID: 2007E37-005

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	68	60		mg/Kg	20	8/3/2020 5:18:09 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/31/2020 10:46:03 AM	54047
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/31/2020 10:46:03 AM	54047
Surr: DNOP	141	30.4-154		%Rec	1	7/31/2020 10:46:03 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/31/2020 11:25:05 PM	54044
Surr: BFB	94.8	75.3-105		%Rec	1	7/31/2020 11:25:05 PM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	7/31/2020 11:25:05 PM	54044
Toluene	ND	0.048		mg/Kg	1	7/31/2020 11:25:05 PM	54044
Ethylbenzene	ND	0.048		mg/Kg	1	7/31/2020 11:25:05 PM	54044
Xylenes, Total	ND	0.096		mg/Kg	1	7/31/2020 11:25:05 PM	54044
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	7/31/2020 11:25:05 PM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-6 H-South

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 9:35:00 AM

Lab ID: 2007E37-006

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	67	60		mg/Kg	20	8/3/2020 5:30:34 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/31/2020 10:56:02 AM	54047
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/31/2020 10:56:02 AM	54047
Surr: DNOP	109	30.4-154		%Rec	1	7/31/2020 10:56:02 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/31/2020 11:48:31 PM	54044
Surr: BFB	95.9	75.3-105		%Rec	1	7/31/2020 11:48:31 PM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	7/31/2020 11:48:31 PM	54044
Toluene	ND	0.048		mg/Kg	1	7/31/2020 11:48:31 PM	54044
Ethylbenzene	ND	0.048		mg/Kg	1	7/31/2020 11:48:31 PM	54044
Xylenes, Total	ND	0.096		mg/Kg	1	7/31/2020 11:48:31 PM	54044
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	7/31/2020 11:48:31 PM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-7 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 9:55:00 AM

Lab ID: 2007E37-007

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	310	60		mg/Kg	20	8/3/2020 5:42:58 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/31/2020 11:06:03 AM	54047
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/31/2020 11:06:03 AM	54047
Surr: DNOP	112	30.4-154		%Rec	1	7/31/2020 11:06:03 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/1/2020 12:11:58 AM	54044
Surr: BFB	97.6	75.3-105		%Rec	1	8/1/2020 12:11:58 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	8/1/2020 12:11:58 AM	54044
Toluene	ND	0.047		mg/Kg	1	8/1/2020 12:11:58 AM	54044
Ethylbenzene	ND	0.047		mg/Kg	1	8/1/2020 12:11:58 AM	54044
Xylenes, Total	ND	0.095		mg/Kg	1	8/1/2020 12:11:58 AM	54044
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	8/1/2020 12:11:58 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-8 H-South

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 10:10:00 AM

Lab ID: 2007E37-008

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 5:55:23 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/31/2020 11:16:06 AM	54047
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/31/2020 11:16:06 AM	54047
Surr: DNOP	127	30.4-154		%Rec	1	7/31/2020 11:16:06 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/1/2020 12:35:15 AM	54044
Surr: BFB	97.6	75.3-105		%Rec	1	8/1/2020 12:35:15 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	8/1/2020 12:35:15 AM	54044
Toluene	ND	0.047		mg/Kg	1	8/1/2020 12:35:15 AM	54044
Ethylbenzene	ND	0.047		mg/Kg	1	8/1/2020 12:35:15 AM	54044
Xylenes, Total	ND	0.093		mg/Kg	1	8/1/2020 12:35:15 AM	54044
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/1/2020 12:35:15 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-9 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 10:25:00 AM

Lab ID: 2007E37-009

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 6:32:38 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/31/2020 11:26:12 AM	54047
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/31/2020 11:26:12 AM	54047
Surr: DNOP	102	30.4-154		%Rec	1	7/31/2020 11:26:12 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2020 12:58:36 AM	54044
Surr: BFB	96.4	75.3-105		%Rec	1	8/1/2020 12:58:36 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	8/1/2020 12:58:36 AM	54044
Toluene	ND	0.049		mg/Kg	1	8/1/2020 12:58:36 AM	54044
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2020 12:58:36 AM	54044
Xylenes, Total	ND	0.099		mg/Kg	1	8/1/2020 12:58:36 AM	54044
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/1/2020 12:58:36 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-10 H-Southeast

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 10:40:00 AM

Lab ID: 2007E37-010

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 6:45:02 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/31/2020 11:36:17 AM	54047
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/31/2020 11:36:17 AM	54047
Surr: DNOP	95.0	30.4-154		%Rec	1	7/31/2020 11:36:17 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/1/2020 1:21:54 AM	54044
Surr: BFB	98.8	75.3-105		%Rec	1	8/1/2020 1:21:54 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	8/1/2020 1:21:54 AM	54044
Toluene	ND	0.047		mg/Kg	1	8/1/2020 1:21:54 AM	54044
Ethylbenzene	ND	0.047		mg/Kg	1	8/1/2020 1:21:54 AM	54044
Xylenes, Total	ND	0.093		mg/Kg	1	8/1/2020 1:21:54 AM	54044
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	8/1/2020 1:21:54 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-11 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 11:00:00 AM

Lab ID: 2007E37-011

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 6:57:26 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/31/2020 11:46:16 AM	54047
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/31/2020 11:46:16 AM	54047
Surr: DNOP	96.2	30.4-154		%Rec	1	7/31/2020 11:46:16 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/1/2020 1:45:21 AM	54044
Surr: BFB	94.3	75.3-105		%Rec	1	8/1/2020 1:45:21 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	8/1/2020 1:45:21 AM	54044
Toluene	ND	0.046		mg/Kg	1	8/1/2020 1:45:21 AM	54044
Ethylbenzene	ND	0.046		mg/Kg	1	8/1/2020 1:45:21 AM	54044
Xylenes, Total	ND	0.092		mg/Kg	1	8/1/2020 1:45:21 AM	54044
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	8/1/2020 1:45:21 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-12 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 11:20:00 AM

Lab ID: 2007E37-012

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	230	60		mg/Kg	20	8/3/2020 7:09:50 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/31/2020 11:56:17 AM	54047
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/31/2020 11:56:17 AM	54047
Surr: DNOP	106	30.4-154		%Rec	1	7/31/2020 11:56:17 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2020 2:55:50 AM	54044
Surr: BFB	97.0	75.3-105		%Rec	1	8/1/2020 2:55:50 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	8/1/2020 2:55:50 AM	54044
Toluene	ND	0.049		mg/Kg	1	8/1/2020 2:55:50 AM	54044
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2020 2:55:50 AM	54044
Xylenes, Total	ND	0.098		mg/Kg	1	8/1/2020 2:55:50 AM	54044
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/1/2020 2:55:50 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-13 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 11:40:00 AM

Lab ID: 2007E37-013

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	120	60		mg/Kg	20	8/3/2020 7:22:14 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/31/2020 12:06:15 PM	54047
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/31/2020 12:06:15 PM	54047
Surr: DNOP	106	30.4-154		%Rec	1	7/31/2020 12:06:15 PM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/1/2020 3:19:12 AM	54044
Surr: BFB	98.0	75.3-105		%Rec	1	8/1/2020 3:19:12 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	8/1/2020 3:19:12 AM	54044
Toluene	ND	0.048		mg/Kg	1	8/1/2020 3:19:12 AM	54044
Ethylbenzene	ND	0.048		mg/Kg	1	8/1/2020 3:19:12 AM	54044
Xylenes, Total	ND	0.097		mg/Kg	1	8/1/2020 3:19:12 AM	54044
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/1/2020 3:19:12 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-14 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 12:00:00 PM

Lab ID: 2007E37-014

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 7:34:39 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/31/2020 12:16:16 PM	54047
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/31/2020 12:16:16 PM	54047
Surr: DNOP	107	30.4-154		%Rec	1	7/31/2020 12:16:16 PM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2020 3:42:34 AM	54044
Surr: BFB	99.5	75.3-105		%Rec	1	8/1/2020 3:42:34 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	8/1/2020 3:42:34 AM	54044
Toluene	ND	0.049		mg/Kg	1	8/1/2020 3:42:34 AM	54044
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2020 3:42:34 AM	54044
Xylenes, Total	ND	0.097		mg/Kg	1	8/1/2020 3:42:34 AM	54044
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	8/1/2020 3:42:34 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-15 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 12:20:00 PM

Lab ID: 2007E37-015

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	67	60		mg/Kg	20	8/3/2020 7:47:04 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/31/2020 12:26:17 PM	54047
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/31/2020 12:26:17 PM	54047
Surr: DNOP	109	30.4-154		%Rec	1	7/31/2020 12:26:17 PM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/1/2020 4:05:56 AM	54044
Surr: BFB	98.1	75.3-105		%Rec	1	8/1/2020 4:05:56 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	8/1/2020 4:05:56 AM	54044
Toluene	ND	0.048		mg/Kg	1	8/1/2020 4:05:56 AM	54044
Ethylbenzene	ND	0.048		mg/Kg	1	8/1/2020 4:05:56 AM	54044
Xylenes, Total	ND	0.096		mg/Kg	1	8/1/2020 4:05:56 AM	54044
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	8/1/2020 4:05:56 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-16 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 12:50:00 PM

Lab ID: 2007E37-016

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	200	60		mg/Kg	20	8/3/2020 7:59:29 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/31/2020 12:36:18 PM	54047
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/31/2020 12:36:18 PM	54047
Surr: DNOP	102	30.4-154		%Rec	1	7/31/2020 12:36:18 PM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/1/2020 4:29:30 AM	54044
Surr: BFB	98.6	75.3-105		%Rec	1	8/1/2020 4:29:30 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	8/1/2020 4:29:30 AM	54044
Toluene	ND	0.048		mg/Kg	1	8/1/2020 4:29:30 AM	54044
Ethylbenzene	ND	0.048		mg/Kg	1	8/1/2020 4:29:30 AM	54044
Xylenes, Total	ND	0.095		mg/Kg	1	8/1/2020 4:29:30 AM	54044
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	8/1/2020 4:29:30 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-17 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 1:10:00 PM

Lab ID: 2007E37-017

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	200	59		mg/Kg	20	8/3/2020 8:11:53 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/31/2020 12:46:18 PM	54047
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/31/2020 12:46:18 PM	54047
Surr: DNOP	105	30.4-154		%Rec	1	7/31/2020 12:46:18 PM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/1/2020 4:53:01 AM	54044
Surr: BFB	95.9	75.3-105		%Rec	1	8/1/2020 4:53:01 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	8/1/2020 4:53:01 AM	54044
Toluene	ND	0.048		mg/Kg	1	8/1/2020 4:53:01 AM	54044
Ethylbenzene	ND	0.048		mg/Kg	1	8/1/2020 4:53:01 AM	54044
Xylenes, Total	ND	0.096		mg/Kg	1	8/1/2020 4:53:01 AM	54044
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/1/2020 4:53:01 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-18 H-East

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 1:30:00 PM

Lab ID: 2007E37-018

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 8:24:17 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/31/2020 12:56:23 PM	54047
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/31/2020 12:56:23 PM	54047
Surr: DNOP	98.8	30.4-154		%Rec	1	7/31/2020 12:56:23 PM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2020 5:16:37 AM	54044
Surr: BFB	96.4	75.3-105		%Rec	1	8/1/2020 5:16:37 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	8/1/2020 5:16:37 AM	54044
Toluene	ND	0.049		mg/Kg	1	8/1/2020 5:16:37 AM	54044
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2020 5:16:37 AM	54044
Xylenes, Total	ND	0.099		mg/Kg	1	8/1/2020 5:16:37 AM	54044
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/1/2020 5:16:37 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-19 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 1:55:00 PM

Lab ID: 2007E37-019

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	59		mg/Kg	20	8/3/2020 9:01:30 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/31/2020 1:06:28 PM	54047
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/31/2020 1:06:28 PM	54047
Surr: DNOP	94.6	30.4-154		%Rec	1	7/31/2020 1:06:28 PM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/1/2020 5:40:18 AM	54044
Surr: BFB	99.1	75.3-105		%Rec	1	8/1/2020 5:40:18 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	8/1/2020 5:40:18 AM	54044
Toluene	ND	0.048		mg/Kg	1	8/1/2020 5:40:18 AM	54044
Ethylbenzene	ND	0.048		mg/Kg	1	8/1/2020 5:40:18 AM	54044
Xylenes, Total	ND	0.097		mg/Kg	1	8/1/2020 5:40:18 AM	54044
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/1/2020 5:40:18 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-22 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/24/2020 2:20:00 PM

Lab ID: 2007E37-020

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 9:13:55 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/31/2020 1:16:34 PM	54047
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/31/2020 1:16:34 PM	54047
Surr: DNOP	108	30.4-154		%Rec	1	7/31/2020 1:16:34 PM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/1/2020 6:03:47 AM	54044
Surr: BFB	100	75.3-105		%Rec	1	8/1/2020 6:03:47 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	8/1/2020 6:03:47 AM	54044
Toluene	ND	0.048		mg/Kg	1	8/1/2020 6:03:47 AM	54044
Ethylbenzene	ND	0.048		mg/Kg	1	8/1/2020 6:03:47 AM	54044
Xylenes, Total	ND	0.097		mg/Kg	1	8/1/2020 6:03:47 AM	54044
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	8/1/2020 6:03:47 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-21 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 9:00:00 AM

Lab ID: 2007E37-021

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	80	60		mg/Kg	20	8/3/2020 9:26:20 PM	54130
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/4/2020 11:47:47 AM	54047
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/4/2020 11:47:47 AM	54047
Surr: DNOP	103	30.4-154		%Rec	1	8/4/2020 11:47:47 AM	54047
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/1/2020 6:27:25 AM	54044
Surr: BFB	96.9	75.3-105		%Rec	1	8/1/2020 6:27:25 AM	54044
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	8/1/2020 6:27:25 AM	54044
Toluene	ND	0.047		mg/Kg	1	8/1/2020 6:27:25 AM	54044
Ethylbenzene	ND	0.047		mg/Kg	1	8/1/2020 6:27:25 AM	54044
Xylenes, Total	ND	0.094		mg/Kg	1	8/1/2020 6:27:25 AM	54044
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	8/1/2020 6:27:25 AM	54044

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-24 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 9:25:00 AM

Lab ID: 2007E37-022

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	430	60		mg/Kg	20	8/3/2020 5:03:30 PM	54133
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/31/2020 5:01:50 AM	54045
Surr: BFB	95.8	70-130		%Rec	1	7/31/2020 5:01:50 AM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/31/2020 4:45:05 PM	54051
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/31/2020 4:45:05 PM	54051
Surr: DNOP	109	30.4-154		%Rec	1	7/31/2020 4:45:05 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/31/2020 5:01:50 AM	54045
Toluene	ND	0.049		mg/Kg	1	7/31/2020 5:01:50 AM	54045
Ethylbenzene	ND	0.049		mg/Kg	1	7/31/2020 5:01:50 AM	54045
Xylenes, Total	ND	0.099		mg/Kg	1	7/31/2020 5:01:50 AM	54045
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	7/31/2020 5:01:50 AM	54045
Surr: 4-Bromofluorobenzene	96.9	70-130		%Rec	1	7/31/2020 5:01:50 AM	54045
Surr: Dibromofluoromethane	105	70-130		%Rec	1	7/31/2020 5:01:50 AM	54045
Surr: Toluene-d8	98.5	70-130		%Rec	1	7/31/2020 5:01:50 AM	54045

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		



## Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-24 1ft

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 9:50:00 AM

Lab ID: 2007E37-023

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	79	60		mg/Kg	20	8/3/2020 5:40:44 PM	54133
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/31/2020 6:27:34 AM	54045
Surr: BFB	103	70-130		%Rec	1	7/31/2020 6:27:34 AM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/31/2020 4:55:26 PM	54051
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/31/2020 4:55:26 PM	54051
Surr: DNOP	123	30.4-154		%Rec	1	7/31/2020 4:55:26 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/31/2020 6:27:34 AM	54045
Toluene	ND	0.049		mg/Kg	1	7/31/2020 6:27:34 AM	54045
Ethylbenzene	ND	0.049		mg/Kg	1	7/31/2020 6:27:34 AM	54045
Xylenes, Total	ND	0.098		mg/Kg	1	7/31/2020 6:27:34 AM	54045
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%Rec	1	7/31/2020 6:27:34 AM	54045
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	7/31/2020 6:27:34 AM	54045
Surr: Dibromofluoromethane	107	70-130		%Rec	1	7/31/2020 6:27:34 AM	54045
Surr: Toluene-d8	98.1	70-130		%Rec	1	7/31/2020 6:27:34 AM	54045

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-23 H-East

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 10:15:00 AM

Lab ID: 2007E37-024

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	180	60		mg/Kg	20	8/3/2020 8:51:50 PM	54139
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/2/2020 2:50:24 AM	54045
Surr: BFB	101	70-130		%Rec	1	8/2/2020 2:50:24 AM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/31/2020 5:05:49 PM	54051
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/31/2020 5:05:49 PM	54051
Surr: DNOP	104	30.4-154		%Rec	1	7/31/2020 5:05:49 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/31/2020 1:45:35 PM	54045
Toluene	ND	0.049		mg/Kg	1	7/31/2020 1:45:35 PM	54045
Ethylbenzene	ND	0.049		mg/Kg	1	7/31/2020 1:45:35 PM	54045
Xylenes, Total	ND	0.097		mg/Kg	1	7/31/2020 1:45:35 PM	54045
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	7/31/2020 1:45:35 PM	54045
Surr: 4-Bromofluorobenzene	94.0	70-130		%Rec	1	7/31/2020 1:45:35 PM	54045
Surr: Dibromofluoromethane	101	70-130		%Rec	1	7/31/2020 1:45:35 PM	54045
Surr: Toluene-d8	102	70-130		%Rec	1	7/31/2020 1:45:35 PM	54045

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-25 H-Northeast

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 10:50:00 AM

Lab ID: 2007E37-025

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	220	60		mg/Kg	20	8/3/2020 9:28:53 PM	54139
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/31/2020 2:14:17 PM	54045
Surr: BFB	97.2	70-130		%Rec	1	7/31/2020 2:14:17 PM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/31/2020 5:16:15 PM	54051
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/31/2020 5:16:15 PM	54051
Surr: DNOP	70.5	30.4-154		%Rec	1	7/31/2020 5:16:15 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.023		mg/Kg	1	7/31/2020 2:14:17 PM	54045
Toluene	ND	0.047		mg/Kg	1	7/31/2020 2:14:17 PM	54045
Ethylbenzene	ND	0.047		mg/Kg	1	7/31/2020 2:14:17 PM	54045
Xylenes, Total	ND	0.093		mg/Kg	1	7/31/2020 2:14:17 PM	54045
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	7/31/2020 2:14:17 PM	54045
Surr: 4-Bromofluorobenzene	94.4	70-130		%Rec	1	7/31/2020 2:14:17 PM	54045
Surr: Dibromofluoromethane	107	70-130		%Rec	1	7/31/2020 2:14:17 PM	54045
Surr: Toluene-d8	99.8	70-130		%Rec	1	7/31/2020 2:14:17 PM	54045

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-26 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 11:15:00 AM

Lab ID: 2007E37-026

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	220	60		mg/Kg	20	8/3/2020 9:41:13 PM	54139
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/31/2020 2:42:55 PM	54045
Surr: BFB	99.1	70-130		%Rec	1	7/31/2020 2:42:55 PM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/31/2020 5:26:47 PM	54051
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/31/2020 5:26:47 PM	54051
Surr: DNOP	84.2	30.4-154		%Rec	1	7/31/2020 5:26:47 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/31/2020 2:42:55 PM	54045
Toluene	ND	0.050		mg/Kg	1	7/31/2020 2:42:55 PM	54045
Ethylbenzene	ND	0.050		mg/Kg	1	7/31/2020 2:42:55 PM	54045
Xylenes, Total	ND	0.099		mg/Kg	1	7/31/2020 2:42:55 PM	54045
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%Rec	1	7/31/2020 2:42:55 PM	54045
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	7/31/2020 2:42:55 PM	54045
Surr: Dibromofluoromethane	109	70-130		%Rec	1	7/31/2020 2:42:55 PM	54045
Surr: Toluene-d8	101	70-130		%Rec	1	7/31/2020 2:42:55 PM	54045

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-27 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 11:45:00 AM

Lab ID: 2007E37-027

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 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	8/3/2020 10:18:14 PM	54139
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/31/2020 3:11:39 PM	54045
Surr: BFB	101	70-130		%Rec	1	7/31/2020 3:11:39 PM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/31/2020 5:37:24 PM	54051
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/31/2020 5:37:24 PM	54051
Surr: DNOP	49.3	30.4-154		%Rec	1	7/31/2020 5:37:24 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/31/2020 3:11:39 PM	54045
Toluene	ND	0.050		mg/Kg	1	7/31/2020 3:11:39 PM	54045
Ethylbenzene	ND	0.050		mg/Kg	1	7/31/2020 3:11:39 PM	54045
Xylenes, Total	ND	0.099		mg/Kg	1	7/31/2020 3:11:39 PM	54045
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	7/31/2020 3:11:39 PM	54045
Surr: 4-Bromofluorobenzene	97.5	70-130		%Rec	1	7/31/2020 3:11:39 PM	54045
Surr: Dibromofluoromethane	108	70-130		%Rec	1	7/31/2020 3:11:39 PM	54045
Surr: Toluene-d8	101	70-130		%Rec	1	7/31/2020 3:11:39 PM	54045

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-28 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 12:05:00 PM

Lab ID: 2007E37-028

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 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	8/3/2020 10:30:35 PM	54139
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/31/2020 3:40:18 PM	54045
Surr: BFB	103	70-130		%Rec	1	7/31/2020 3:40:18 PM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/31/2020 5:48:03 PM	54051
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/31/2020 5:48:03 PM	54051
Surr: DNOP	60.7	30.4-154		%Rec	1	7/31/2020 5:48:03 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/31/2020 3:40:18 PM	54045
Toluene	ND	0.050		mg/Kg	1	7/31/2020 3:40:18 PM	54045
Ethylbenzene	ND	0.050		mg/Kg	1	7/31/2020 3:40:18 PM	54045
Xylenes, Total	ND	0.099		mg/Kg	1	7/31/2020 3:40:18 PM	54045
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	7/31/2020 3:40:18 PM	54045
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	7/31/2020 3:40:18 PM	54045
Surr: Dibromofluoromethane	106	70-130		%Rec	1	7/31/2020 3:40:18 PM	54045
Surr: Toluene-d8	97.9	70-130		%Rec	1	7/31/2020 3:40:18 PM	54045

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-29 H-North

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 12:20:00 PM

Lab ID: 2007E37-029

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	59		mg/Kg	20	8/3/2020 10:42:56 PM	54139
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/31/2020 4:08:57 PM	54045
Surr: BFB	99.1	70-130		%Rec	1	7/31/2020 4:08:57 PM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/31/2020 5:58:41 PM	54051
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/31/2020 5:58:41 PM	54051
Surr: DNOP	64.9	30.4-154		%Rec	1	7/31/2020 5:58:41 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/31/2020 4:08:57 PM	54045
Toluene	ND	0.049		mg/Kg	1	7/31/2020 4:08:57 PM	54045
Ethylbenzene	ND	0.049		mg/Kg	1	7/31/2020 4:08:57 PM	54045
Xylenes, Total	ND	0.099		mg/Kg	1	7/31/2020 4:08:57 PM	54045
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	7/31/2020 4:08:57 PM	54045
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	7/31/2020 4:08:57 PM	54045
Surr: Dibromofluoromethane	107	70-130		%Rec	1	7/31/2020 4:08:57 PM	54045
Surr: Toluene-d8	101	70-130		%Rec	1	7/31/2020 4:08:57 PM	54045

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-30 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 12:50:00 PM

Lab ID: 2007E37-030

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 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	8/3/2020 10:55:17 PM	54139
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/31/2020 4:37:36 PM	54045
Surr: BFB	94.3	70-130		%Rec	1	7/31/2020 4:37:36 PM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/31/2020 6:09:15 PM	54051
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/31/2020 6:09:15 PM	54051
Surr: DNOP	98.6	30.4-154		%Rec	1	7/31/2020 6:09:15 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/31/2020 4:37:36 PM	54045
Toluene	ND	0.049		mg/Kg	1	7/31/2020 4:37:36 PM	54045
Ethylbenzene	ND	0.049		mg/Kg	1	7/31/2020 4:37:36 PM	54045
Xylenes, Total	ND	0.099		mg/Kg	1	7/31/2020 4:37:36 PM	54045
Surr: 1,2-Dichloroethane-d4	98.7	70-130		%Rec	1	7/31/2020 4:37:36 PM	54045
Surr: 4-Bromofluorobenzene	95.1	70-130		%Rec	1	7/31/2020 4:37:36 PM	54045
Surr: Dibromofluoromethane	101	70-130		%Rec	1	7/31/2020 4:37:36 PM	54045
Surr: Toluene-d8	98.0	70-130		%Rec	1	7/31/2020 4:37:36 PM	54045

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-31 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 1:20:00 PM

Lab ID: 2007E37-031

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 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	8/3/2020 11:07:37 PM	54139
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/31/2020 5:06:15 PM	54045
Surr: BFB	104	70-130		%Rec	1	7/31/2020 5:06:15 PM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/31/2020 6:19:51 PM	54051
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/31/2020 6:19:51 PM	54051
Surr: DNOP	88.9	30.4-154		%Rec	1	7/31/2020 6:19:51 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/31/2020 5:06:15 PM	54045
Toluene	ND	0.049		mg/Kg	1	7/31/2020 5:06:15 PM	54045
Ethylbenzene	ND	0.049		mg/Kg	1	7/31/2020 5:06:15 PM	54045
Xylenes, Total	ND	0.098		mg/Kg	1	7/31/2020 5:06:15 PM	54045
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	7/31/2020 5:06:15 PM	54045
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	7/31/2020 5:06:15 PM	54045
Surr: Dibromofluoromethane	107	70-130		%Rec	1	7/31/2020 5:06:15 PM	54045
Surr: Toluene-d8	104	70-130		%Rec	1	7/31/2020 5:06:15 PM	54045

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		



## Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-32 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 1:50:00 PM

Lab ID: 2007E37-032

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	290	60		mg/Kg	20	8/3/2020 11:19:57 PM	54139
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/31/2020 5:35:00 PM	54045
Surr: BFB	102	70-130		%Rec	1	7/31/2020 5:35:00 PM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/31/2020 6:30:17 PM	54051
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/31/2020 6:30:17 PM	54051
Surr: DNOP	120	30.4-154		%Rec	1	7/31/2020 6:30:17 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/31/2020 5:35:00 PM	54045
Toluene	ND	0.049		mg/Kg	1	7/31/2020 5:35:00 PM	54045
Ethylbenzene	ND	0.049		mg/Kg	1	7/31/2020 5:35:00 PM	54045
Xylenes, Total	ND	0.098		mg/Kg	1	7/31/2020 5:35:00 PM	54045
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%Rec	1	7/31/2020 5:35:00 PM	54045
Surr: 4-Bromofluorobenzene	98.5	70-130		%Rec	1	7/31/2020 5:35:00 PM	54045
Surr: Dibromofluoromethane	106	70-130		%Rec	1	7/31/2020 5:35:00 PM	54045
Surr: Toluene-d8	101	70-130		%Rec	1	7/31/2020 5:35:00 PM	54045

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 2007E37

Date Reported: 8/5/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: AH-33 Surface

Project: Devon Cotton Draw 181 SWD

Collection Date: 7/27/2020 2:10:00 PM

Lab ID: 2007E37-033

Matrix: SOIL

Received Date: 7/29/2020 9:30:00 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	8/3/2020 11:32:17 PM	54139
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/31/2020 6:03:42 PM	54045
Surr: BFB	96.1	70-130		%Rec	1	7/31/2020 6:03:42 PM	54045
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/31/2020 6:40:36 PM	54051
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/31/2020 6:40:36 PM	54051
Surr: DNOP	80.3	30.4-154		%Rec	1	7/31/2020 6:40:36 PM	54051
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/31/2020 6:03:42 PM	54045
Toluene	ND	0.049		mg/Kg	1	7/31/2020 6:03:42 PM	54045
Ethylbenzene	ND	0.049		mg/Kg	1	7/31/2020 6:03:42 PM	54045
Xylenes, Total	ND	0.098		mg/Kg	1	7/31/2020 6:03:42 PM	54045
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	7/31/2020 6:03:42 PM	54045
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	7/31/2020 6:03:42 PM	54045
Surr: Dibromofluoromethane	107	70-130		%Rec	1	7/31/2020 6:03:42 PM	54045
Surr: Toluene-d8	98.3	70-130		%Rec	1	7/31/2020 6:03:42 PM	54045

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#: 2007E37

05-Aug-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>MB-54130</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54130</b>	RunNo: <b>70807</b>								
Prep Date: <b>8/3/2020</b>	Analysis Date: <b>8/3/2020</b>	SeqNo: <b>2464841</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-54130</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54130</b>	RunNo: <b>70807</b>								
Prep Date: <b>8/3/2020</b>	Analysis Date: <b>8/3/2020</b>	SeqNo: <b>2464842</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			

Sample ID: <b>MB-54139</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54139</b>	RunNo: <b>70812</b>								
Prep Date: <b>8/3/2020</b>	Analysis Date: <b>8/3/2020</b>	SeqNo: <b>2465249</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-54139</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54139</b>	RunNo: <b>70812</b>								
Prep Date: <b>8/3/2020</b>	Analysis Date: <b>8/3/2020</b>	SeqNo: <b>2465250</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	92.0	90	110			

Sample ID: <b>MB-54133</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54133</b>	RunNo: <b>70785</b>								
Prep Date: <b>8/3/2020</b>	Analysis Date: <b>8/3/2020</b>	SeqNo: <b>2465333</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-54133</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54133</b>	RunNo: <b>70785</b>								
Prep Date: <b>8/3/2020</b>	Analysis Date: <b>8/3/2020</b>	SeqNo: <b>2465334</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	91.4	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#: 2007E37

05-Aug-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>LCS-54043</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54043</b>			RunNo: <b>70757</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/30/2020</b>			SeqNo: <b>2462544</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.1	70	130			
Surr: DNOP	4.0		5.000		79.6	30.4	154			

Sample ID: <b>MB-54043</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54043</b>			RunNo: <b>70757</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/30/2020</b>			SeqNo: <b>2462545</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		114	30.4	154			

Sample ID: <b>MB-54047</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54047</b>			RunNo: <b>70804</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>			SeqNo: <b>2464707</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	9.9		10.00		99.4	30.4	154			

Sample ID: <b>MB-54051</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54051</b>			RunNo: <b>70804</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>			SeqNo: <b>2464708</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	12		10.00		124	30.4	154			

Sample ID: <b>LCS-54047</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54047</b>			RunNo: <b>70804</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>			SeqNo: <b>2464709</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	102	70	130			
Surr: DNOP	4.8		5.000		95.1	30.4	154			

**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#: 2007E37

05-Aug-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>LCS-54051</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>54051</b>		RunNo: <b>70804</b>							
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>		SeqNo: <b>2464710</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	50.00	0	116	70	130			
Surr: DNOP	5.7		5.000		115	30.4	154			

Sample ID: <b>2007E37-002AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>AH-2 Surface</b>	Batch ID: <b>54047</b>		RunNo: <b>70804</b>							
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>		SeqNo: <b>2464755</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.4	47.17	0	96.1	47.4	136			
Surr: DNOP	4.6		4.717		97.6	30.4	154			

Sample ID: <b>2007E37-002AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>AH-2 Surface</b>	Batch ID: <b>54047</b>		RunNo: <b>70804</b>							
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>		SeqNo: <b>2464758</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	9.1	45.66	0	110	47.4	136	10.6	43.4	
Surr: DNOP	5.7		4.566		125	30.4	154	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#: 2007E37

05-Aug-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>2007e37-002ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>AH-2 Surface</b>	Batch ID: <b>54044</b>	RunNo: <b>70754</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462779</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	4.9	24.58	0	89.0	61.3	114			
Surr: BFB	1100		983.3		109	75.3	105			S

Sample ID: <b>2007e37-002amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>AH-2 Surface</b>	Batch ID: <b>54044</b>	RunNo: <b>70754</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462780</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	4.8	24.15	0	82.2	61.3	114	9.69	20	
Surr: BFB	1000		966.2		108	75.3	105	0	0	S

Sample ID: <b>lcs-54044</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54044</b>	RunNo: <b>70754</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462804</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	25.00	0	81.8	72.5	106			
Surr: BFB	1100		1000		105	75.3	105			S

Sample ID: <b>mb-54044</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54044</b>	RunNo: <b>70754</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462805</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		99.9	75.3	105			

**Qualifiers:**

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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#: 2007E37

05-Aug-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>2007e37-003ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>AH-3 H-West</b>	Batch ID: <b>54044</b>	RunNo: <b>70754</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462879</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9728	0	97.2	76.3	120			
Toluene	0.99	0.049	0.9728	0.01032	101	78.5	120			
Ethylbenzene	1.0	0.049	0.9728	0	103	78.1	124			
Xylenes, Total	3.0	0.097	2.918	0	104	79.3	125			
Surr: 4-Bromofluorobenzene	1.0		0.9728		106	80	120			

Sample ID: <b>2007e37-003amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>AH-3 H-West</b>	Batch ID: <b>54044</b>	RunNo: <b>70754</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462880</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.024	0.9756	0	95.6	76.3	120	1.29	20	
Toluene	0.98	0.049	0.9756	0.01032	99.2	78.5	120	1.23	20	
Ethylbenzene	1.0	0.049	0.9756	0	103	78.1	124	0.552	20	
Xylenes, Total	3.0	0.098	2.927	0	104	79.3	125	0.427	20	
Surr: 4-Bromofluorobenzene	1.0		0.9756		104	80	120	0	0	

Sample ID: <b>LCS-54044</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54044</b>	RunNo: <b>70754</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462903</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.4	80	120			
Toluene	0.91	0.050	1.000	0	91.2	80	120			
Ethylbenzene	0.91	0.050	1.000	0	91.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.3	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID: <b>mb-54044</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54044</b>	RunNo: <b>70754</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462904</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	1.0		1.000		104	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

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

WO#: 2007E37

05-Aug-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>mb-54042</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54042</b>	RunNo: <b>70747</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/30/2020</b>	SeqNo: <b>2462167</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: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		99.0	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.48		0.5000		96.4	70	130			

Sample ID: <b>lcs-54042</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>54042</b>	RunNo: <b>70747</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/30/2020</b>	SeqNo: <b>2462168</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.5	80	120			
Toluene	0.99	0.050	1.000	0	99.1	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.8	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		100	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.48		0.5000		95.6	70	130			

Sample ID: <b>mb-54045</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54045</b>	RunNo: <b>70747</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462218</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: 1,2-Dichloroethane-d4	0.50		0.5000		99.4	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.51		0.5000		102	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#: 2007E37

05-Aug-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>Ics-54045</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>54045</b>	RunNo: <b>70747</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/30/2020</b>	SeqNo: <b>2462219</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.4	80	120			
Toluene	0.99	0.050	1.000	0	98.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		105	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: Toluene-d8	0.49		0.5000		98.4	70	130			

Sample ID: <b>2007e37-022ams</b>	SampType: <b>MS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>AH-24 Surface</b>	Batch ID: <b>54045</b>	RunNo: <b>70747</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462221</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	0.9872	0	101	71.1	115			
Toluene	1.0	0.049	0.9872	0	103	79.6	132			
Ethylbenzene	1.1	0.049	0.9872	0	106	83.8	134			
Xylenes, Total	3.3	0.099	2.962	0	111	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.48		0.4936		96.8	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.4936		97.0	70	130			
Surr: Dibromofluoromethane	0.53		0.4936		108	70	130			
Surr: Toluene-d8	0.49		0.4936		98.8	70	130			

Sample ID: <b>2007e37-022amsd</b>	SampType: <b>MSD4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>AH-24 Surface</b>	Batch ID: <b>54045</b>	RunNo: <b>70747</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462222</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9497	0	99.6	71.1	115	4.82	20	
Toluene	1.0	0.047	0.9497	0	109	79.6	132	1.94	20	
Ethylbenzene	1.1	0.047	0.9497	0	111	83.8	134	0.766	20	
Xylenes, Total	3.4	0.095	2.849	0	118	82.4	132	2.81	20	
Surr: 1,2-Dichloroethane-d4	0.48		0.4748		101	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.48		0.4748		101	70	130	0	0	
Surr: Dibromofluoromethane	0.50		0.4748		105	70	130	0	0	
Surr: Toluene-d8	0.45		0.4748		95.3	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#: 2007E37

05-Aug-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>mb-54070</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54070</b>	RunNo: <b>70769</b>								
Prep Date: <b>7/30/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462806</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.5	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.8	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		107	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID: <b>lcs-54070</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>54070</b>	RunNo: <b>70769</b>								
Prep Date: <b>7/30/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462807</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.0	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.1	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.49		0.5000		97.3	70	130			

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>S70775</b>	RunNo: <b>70775</b>								
Prep Date:	Analysis Date: <b>8/1/2020</b>	SeqNo: <b>2463032</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>S70775</b>	RunNo: <b>70775</b>								
Prep Date:	Analysis Date: <b>8/1/2020</b>	SeqNo: <b>2463033</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.51		0.5000		101	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#: 2007E37

05-Aug-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>mb-54042</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54042</b>			RunNo: <b>70747</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/30/2020</b>			SeqNo: <b>2462229</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	480		500.0		96.1	70	130			

Sample ID: <b>lcs-54042</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54042</b>			RunNo: <b>70747</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/30/2020</b>			SeqNo: <b>2462230</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.3	70	130			
Surr: BFB	510		500.0		102	70	130			

Sample ID: <b>mb-54045</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54045</b>			RunNo: <b>70747</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>			SeqNo: <b>2462278</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	510		500.0		101	70	130			

Sample ID: <b>lcs-54045</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54045</b>			RunNo: <b>70747</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>			SeqNo: <b>2462279</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.0	70	130			
Surr: BFB	520		500.0		105	70	130			

Sample ID: <b>2007e37-023ams</b>	SampType: <b>MS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>AH-24 1ft</b>	Batch ID: <b>54045</b>			RunNo: <b>70747</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>			SeqNo: <b>2462282</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	24.25	0	92.0	49.2	122			
Surr: BFB	490		485.0		101	70	130			

Sample ID: <b>2007e37-023amsd</b>	SampType: <b>MSD</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>AH-24 1ft</b>	Batch ID: <b>54045</b>			RunNo: <b>70747</b>						
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>			SeqNo: <b>2462283</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

Page 42 of 43

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

WO#: 2007E37

05-Aug-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 181 SWD

Sample ID: <b>2007e37-023amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>AH-24 1ft</b>	Batch ID: <b>54045</b>	RunNo: <b>70747</b>								
Prep Date: <b>7/29/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462283</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	24.90	0	92.7	49.2	122	3.39	20	
Surr: BFB	500		498.0		101	70	130	0	0	

Sample ID: <b>mb-54070</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54070</b>	RunNo: <b>70769</b>								
Prep Date: <b>7/30/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462847</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	520		500.0		103	70	130			

Sample ID: <b>lcs-54070</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54070</b>	RunNo: <b>70769</b>								
Prep Date: <b>7/30/2020</b>	Analysis Date: <b>7/31/2020</b>	SeqNo: <b>2462848</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	520		500.0		103	70	130			

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>G70775</b>	RunNo: <b>70775</b>								
Prep Date:	Analysis Date: <b>8/1/2020</b>	SeqNo: <b>2463070</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	510		500.0		103	70	130			

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>G70775</b>	RunNo: <b>70775</b>								
Prep Date:	Analysis Date: <b>8/1/2020</b>	SeqNo: <b>2463071</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	500		500.0		99.7	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





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: 2007E37

RcptNo: 1

Received By: Cheyenne Cason 7/29/2020 9:30:00 AM

Completed By: Juan Rojas 7/29/2020 9:55:50 AM

Reviewed By: *LR*

*7/29/20*

*Juan Rojas*

### 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? Yes ☒ No ☐  
(Note discrepancies on chain of custody)  
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? Yes ☒ No ☐  
(If no, notify customer for authorization.)

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

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

Checked by: *SPA 7.29.20*

### 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	3.9	Good				
2	2.3	Good				
3	4.9	Good				

## Chain-of-Custody Record

Client: Safety & Environmental

Solutions

Mailing Address: 703 E. Clinton6666 N. M. 88240Phone #: 575-397-0510

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: DevonCotton Draw 181 SWD

Project #:

Dev-20-033

Project Manager:

Allen, Bob

Sampler:

Sosi JerryOn Ice: ☒ Yes ☐ No# of Coolers: 3Cooler Temp (including CF): See Remarks (°C)

Container Type and #

Preservative Type

HEAL No.

Date

Time

Sample Name

Matrix

Date

Time

Sample Name

Matrix

Date

Time

Sample Name

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## Chain-of-Custody Record

Client: Safety & Environmental Solutions

Mailing Address: 703 E. Clinton

Albbs N.M. 88290

Phone #: 575-397-0570

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush 5 day

Project Name: Devon Brown 181 SWD

Project #: Dev-20-033

Project Manager: Allen, Bob

Sampler: So n Jerry

On Ice: ☒ Yes ☐ No

# of Coolers: 3

Cooler Temp (including GF): See Remarks (°C)

Container Type and #

Preservative Type

HEAL No.

7007637

-013

-014

-015

-016

-017

-018

-019

-020

-021

-022

-023

-024

Received by: So n Jerry Date: 7/28/20 Time: 0800

Received by: Chris Cover Date: 7/29/20 Time: 0930

Relinquished by: So n Jerry Date: 7/28/20 Time: 0800

Relinquished by: So n Jerry Date: 7/28/20 Time: 1900

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

BTEX / MTBE / TMB's (8021)

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

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)

Chloride

Remarks:  $3.9 \pm 0 = 3.9$

$2.3 \pm 0 = 2.3$

$4.9 \pm 0 = 4.9$



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.

Incident ID	NAB1530234949
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: Dale Woodall Title: Env. Professional  
Signature: Dale Woodall Date: 11/17/2022  
email: dale.woodall@dvn.com Telephone: 575-748-1838

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Incident ID	NAB1626756642
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.

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- ☐ Description of remediation activities

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Printed Name: Dale Woodall Title: Env. Professional  
Signature: Dale Woodall Date: 11/17/2022  
email: dale.woodall@dvn.com Telephone: 575-748-1838

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



Incident ID	NOY1701331626
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.

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- ☐ 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)
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- ☐ 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: Dale Woodall Title: Env. Professional  
Signature: Dale Woodall Date: 11/17/2022  
email: dale.woodall@dvn.com Telephone: 575-748-1838

**OCD Only**

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

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Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Incident ID	NAB1726355760
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

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Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Incident ID	NRM2003439614
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

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Signature: Dale Woodall Date: 11/17/2022  
email: dale.woodall@dvn.com Telephone: 575-748-1838

**OCD Only**

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

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Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



Incident ID	NRM2008733329
District RP	
Facility ID	
Application ID	

## Closure

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

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- ☐ 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

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Signature: Dale Woodall Date: 11/17/2022  
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**OCD Only**

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Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

**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 159670

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 159670
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	2/8/2023