

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.

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: Jocelyn Harimon 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.

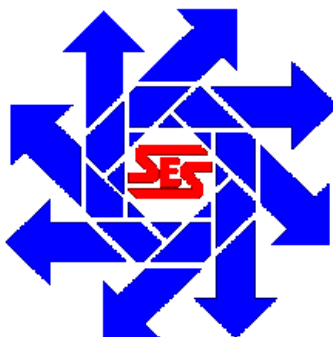
Closure Approved by: Ashley Maxwell Date: 2/08/2023
Printed Name: Ashley Maxwell Title: Environmental Specialist

**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	Wesley.Mathews@dvn.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

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

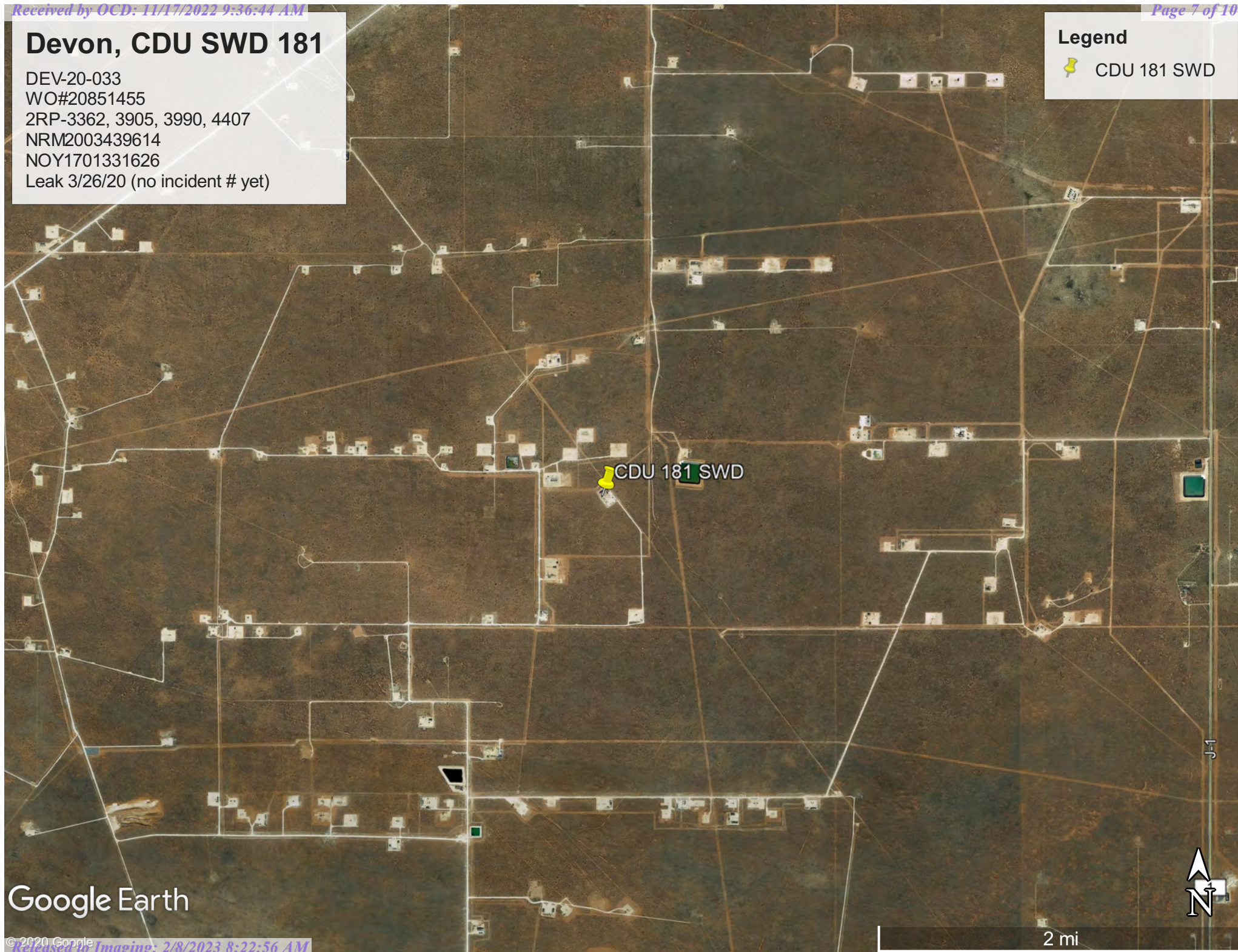
Map of Release with sample locations
Photos of release and remediation
NMOCD Oil and Gas Map
BLM Cave Karst Map
Laboratory Analysis
C-141,

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

2 mi

DEV-20-033

Legend

- Horizontal sample points
- Sample points







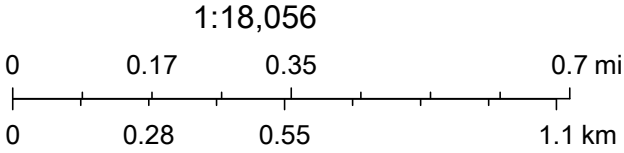
200 ft

OSE PUBLIC PRINT



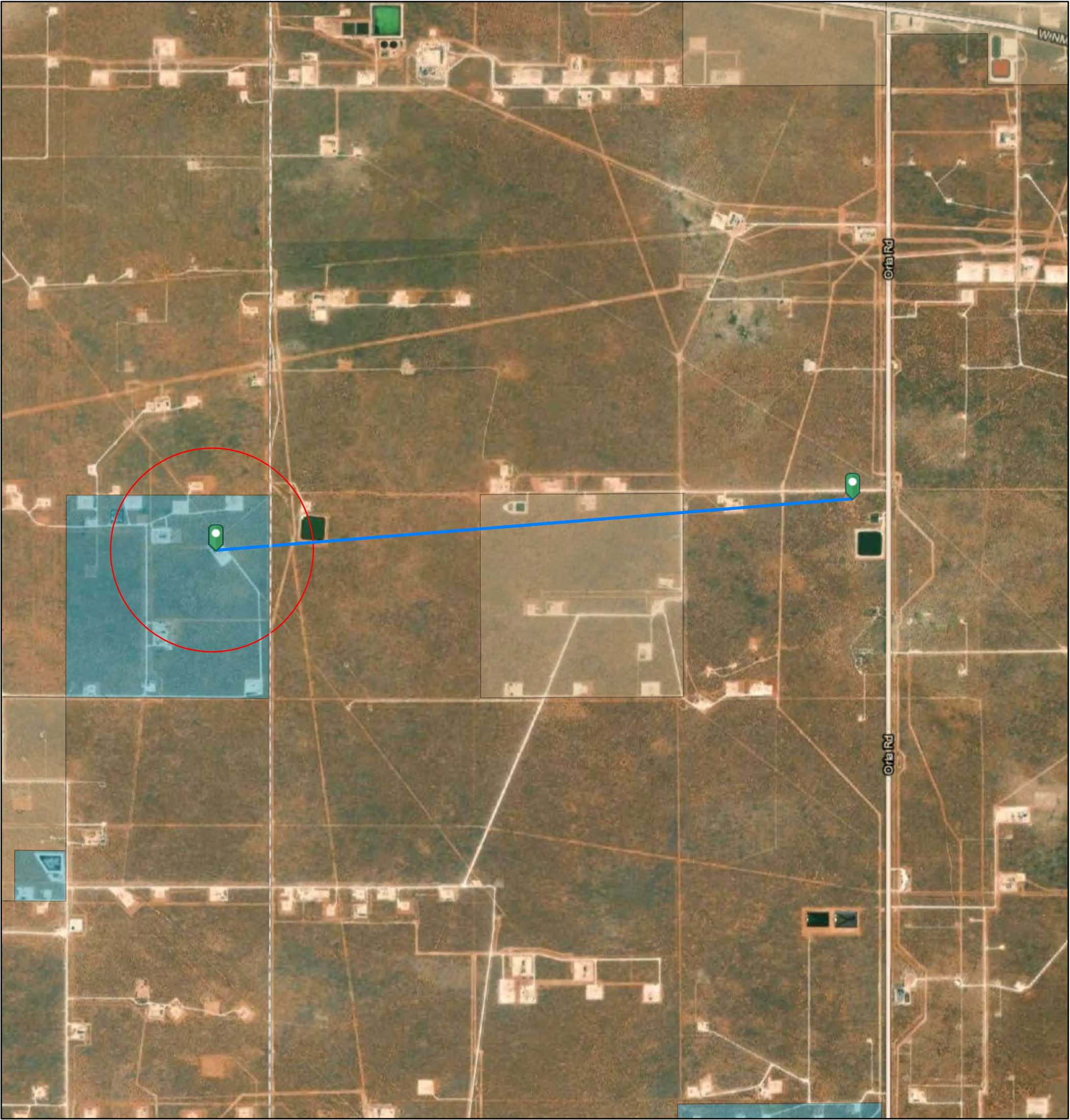
8/27/2021, 9:50:24 AM

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








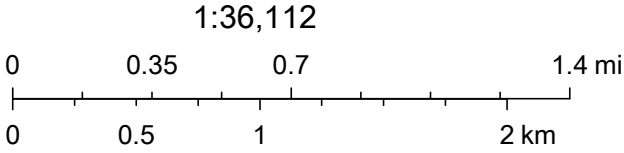
Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC, Maxar

OSE PUBLIC PRINT



8/27/2021, 10:05:01 AM

-  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

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.) C-4536 POD 1		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		
WELL LOCATION (FROM GPS)	DEGREES 32		MINUTES 10	SECONDS 50.8	N		
	LONGITUDE 103		40	25.9	W		
	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84						
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE							
2. DRILLING & CASING INFORMATION	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					
	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
3. ANNULAR MATERIAL	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	

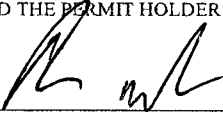
FOR OSE INTERNAL USE

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

FILE NO. C-4536-POD 1	POD NO. 1	TRN NO. 695378
LOCATION STK 24.32.33.122	WELL TAG ID NO. 20E37	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 (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
	FROM	TO				
4. HYDROGEOLOGIC LOG OF WELL	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
5. TEST; RIG SUPERVISION	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:						
6. SIGNATURE	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 & LOG (Version 06/30/2017)

FILE NO. C-4536-FOA

POD NO. 1

TRN NO. 1695378

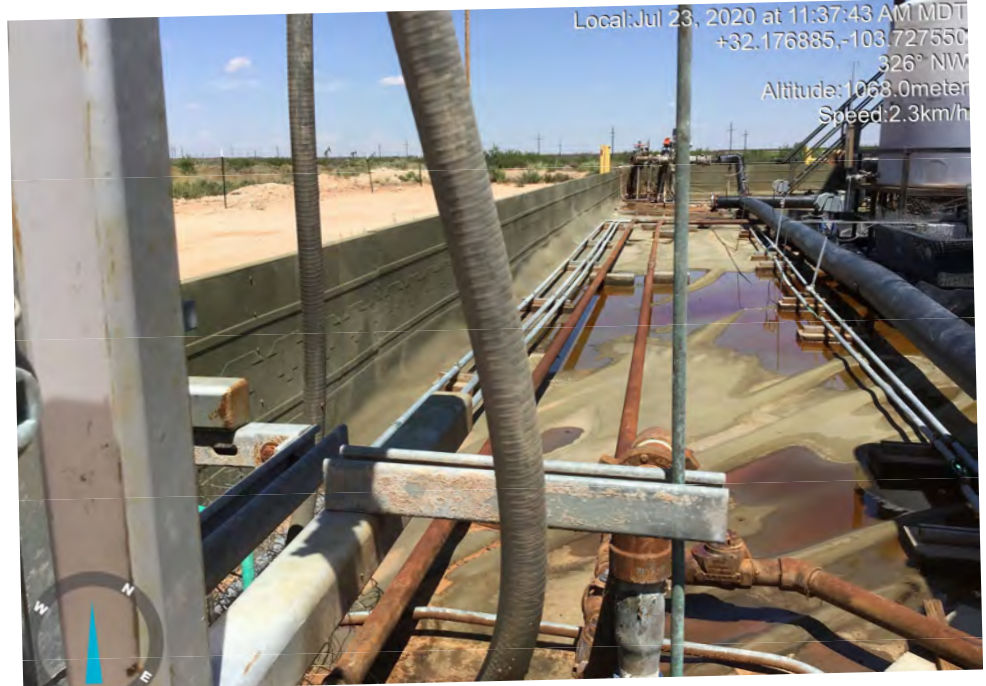
LOCATION STK - 24.32.33.122

WELL TAG ID NO. 20E37

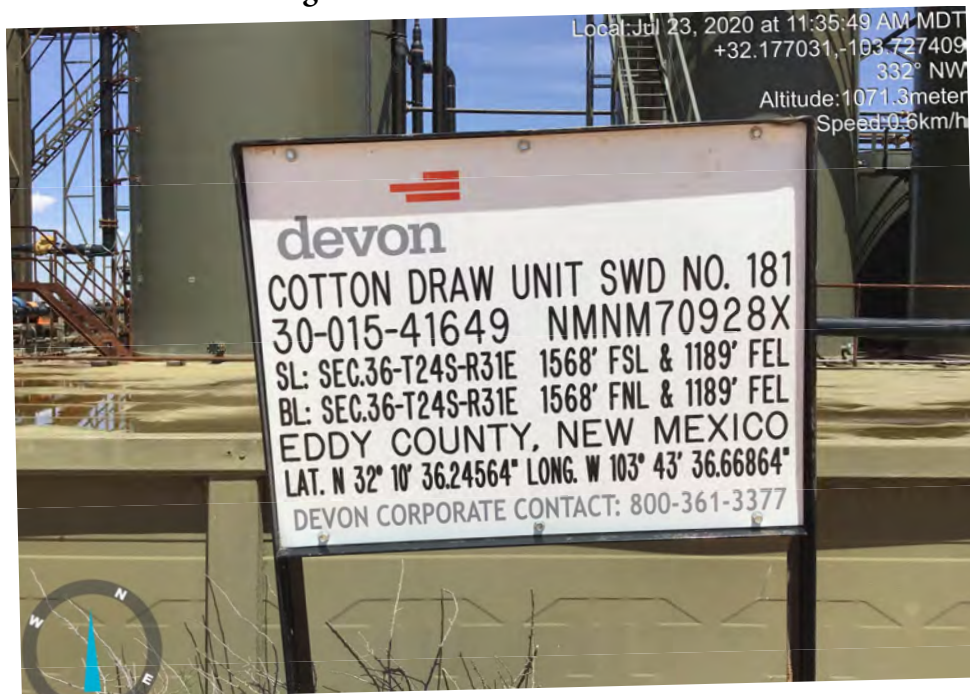
PAGE 2 OF 2



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



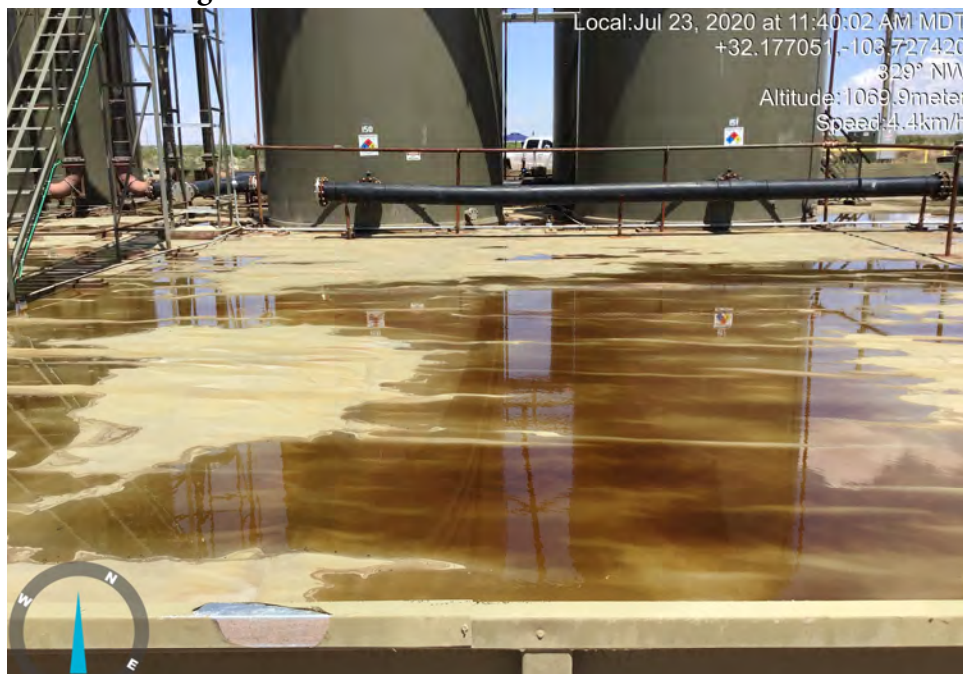
East side facing West inside



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



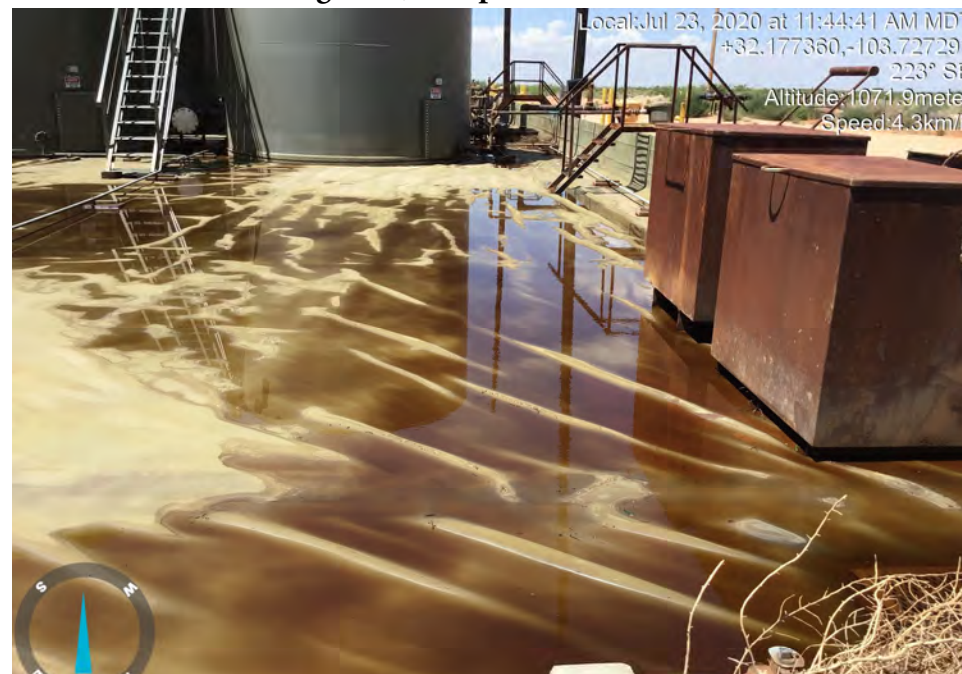
North side facing South inside



Northeast corner facing East , Sump with water



North side facing South inside



North side facing South inside



Northeast corner facing South outside



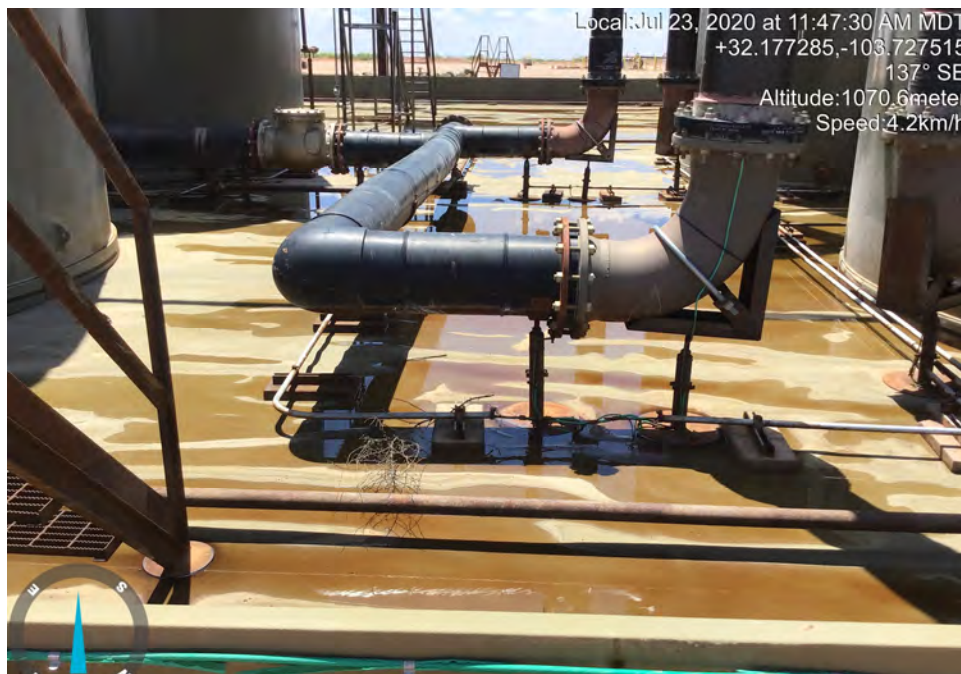
West side facing East inside



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)

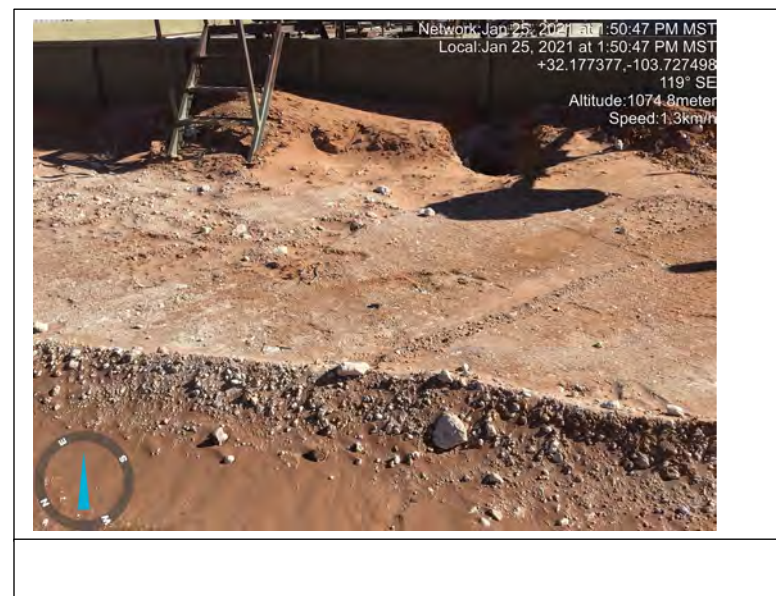


East side, outside of liner, oil stain (not liner leak), oil dump



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

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 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 2101967

Date Reported: 2/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	120	60		mg/Kg	20	1/29/2021 7:12:25 PM	57808
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
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
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
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
EPA METHOD 8021B: VOLATILES							Analyst: RAA
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.

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		

Page 1 of 12

Analytical Report

Lab Order 2101967

Date Reported: 2/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	1/29/2021 8:14:27 PM	57808
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
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
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
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
EPA METHOD 8021B: VOLATILES							Analyst: RAA
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.

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		

Page 2 of 12

Analytical Report

Lab Order 2101967

Date Reported: 2/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	59		mg/Kg	20	1/29/2021 8:51:39 PM	57808
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
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
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
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
EPA METHOD 8021B: VOLATILES							Analyst: RAA
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.

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		

Page 3 of 12

Analytical Report

Lab Order 2101967

Date Reported: 2/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	59		mg/Kg	20	1/29/2021 9:04:04 PM	57808
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
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
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
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
EPA METHOD 8021B: VOLATILES							Analyst: RAA
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.

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		

Page 4 of 12

Analytical Report

Lab Order 2101967

Date Reported: 2/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	1/29/2021 9:16:29 PM	57808
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
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
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
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
EPA METHOD 8021B: VOLATILES							Analyst: RAA
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.

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		

Page 5 of 12

Analytical Report

Lab Order 2101967

Date Reported: 2/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	1/29/2021 9:28:54 PM	57808
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
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
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
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
EPA METHOD 8021B: VOLATILES							Analyst: RAA
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.

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		

Page 6 of 12

Analytical Report

Lab Order 2101967

Date Reported: 2/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	1/29/2021 9:41:19 PM	57808
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
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
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
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
EPA METHOD 8021B: VOLATILES							Analyst: RAA
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.

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		

Page 7 of 12

Analytical Report

Lab Order 2101967

Date Reported: 2/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	1/29/2021 9:53:43 PM	57808
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
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
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
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
EPA METHOD 8021B: VOLATILES							Analyst: RAA
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.

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		

Page 8 of 12

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: MB-57769	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 57769	RunNo: 74917								
Prep Date: 1/27/2021	Analysis Date: 1/28/2021	SeqNo: 2644531			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	13		10.00		132	30.4	154			

Sample ID: LCS-57769	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 57769	RunNo: 74917								
Prep Date: 1/27/2021	Analysis Date: 1/28/2021	SeqNo: 2644533			Units: mg/Kg					
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: 2101967-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SP-1 1ft Bottom	Batch ID: 57769	RunNo: 74917								
Prep Date: 1/27/2021	Analysis Date: 1/28/2021	SeqNo: 2644534			Units: mg/Kg					
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: 2101967-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SP-1 1ft Bottom	Batch ID: 57769	RunNo: 74917								
Prep Date: 1/27/2021	Analysis Date: 1/28/2021	SeqNo: 2644535			Units: mg/Kg					
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

Page 10 of 12

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

WO#: 2101967

01-Feb-21

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

Sample ID: ics-57765	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 57765		RunNo: 74945							
Prep Date: 1/27/2021	Analysis Date: 1/29/2021		SeqNo: 2645737		Units: mg/Kg					
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: mb-57765	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 57765		RunNo: 74945							
Prep Date: 1/27/2021	Analysis Date: 1/29/2021		SeqNo: 2645738		Units: mg/Kg					
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: 2101967-002ams	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: SP-2 1ft Bottom	Batch ID: 57765		RunNo: 74945							
Prep Date: 1/27/2021	Analysis Date: 1/29/2021		SeqNo: 2646037		Units: mg/Kg					
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: 2101967-002amsd	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: SP-2 1ft Bottom	Batch ID: 57765		RunNo: 74945							
Prep Date: 1/27/2021	Analysis Date: 1/29/2021		SeqNo: 2646038		Units: mg/Kg					
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: ics-57723	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 57723		RunNo: 74945							
Prep Date: 1/25/2021	Analysis Date: 1/30/2021		SeqNo: 2646074		Units: %Rec					
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: mb-57723	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 57723		RunNo: 74945							
Prep Date: 1/25/2021	Analysis Date: 1/30/2021		SeqNo: 2646078		Units: %Rec					
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

Page 11 of 12

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

WO#: 2101967

01-Feb-21

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

Sample ID: LCS-57765	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 57765	RunNo: 74945								
Prep Date: 1/27/2021	Analysis Date: 1/29/2021	SeqNo: 2645742	Units: mg/Kg							
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: mb-57765	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 57765	RunNo: 74945								
Prep Date: 1/27/2021	Analysis Date: 1/29/2021	SeqNo: 2645743	Units: mg/Kg							
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: 2101967-001ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: SP-1 1ft Bottom	Batch ID: 57765	RunNo: 74945								
Prep Date: 1/27/2021	Analysis Date: 1/29/2021	SeqNo: 2646088	Units: mg/Kg							
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			

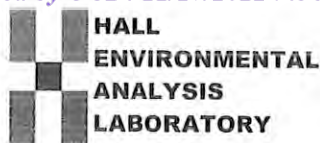
Sample ID: 2101967-001amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: SP-1 1ft Bottom	Batch ID: 57765	RunNo: 74945								
Prep Date: 1/27/2021	Analysis Date: 1/29/2021	SeqNo: 2646089	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	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

Page 12 of 12



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°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

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 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 & 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
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	130	60		mg/Kg	20	9/25/2020 2:34:41 AM	55435
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
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
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
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
EPA METHOD 8021B: VOLATILES							Analyst: NSB
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.

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 2009B07

Date Reported: 9/25/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/25/2020 2:47:06 AM	55435
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
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
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
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
EPA METHOD 8021B: VOLATILES							Analyst: NSB
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.

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		

Page 2 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: MB-55435		SampType: mblk		TestCode: EPA Method 300.0: Anions						
Client ID: PBS		Batch ID: 55435		RunNo: 72148						
Prep Date: 9/24/2020		Analysis Date: 9/24/2020		SeqNo: 2529091		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-55435		SampType: lcs		TestCode: EPA Method 300.0: Anions						
Client ID: LCSS		Batch ID: 55435		RunNo: 72148						
Prep Date: 9/24/2020		Analysis Date: 9/24/2020		SeqNo: 2529092		Units: mg/Kg				
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

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: LCS-55318	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 55318	RunNo: 72063								
Prep Date: 9/21/2020	Analysis Date: 9/22/2020	SeqNo: 2524682	Units: mg/Kg							
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: LCS-55322	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 55322	RunNo: 72063								
Prep Date: 9/21/2020	Analysis Date: 9/22/2020	SeqNo: 2524684	Units: %Rec							
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: LCS-55325	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 55325	RunNo: 72063								
Prep Date: 9/21/2020	Analysis Date: 9/23/2020	SeqNo: 2524685	Units: %Rec							
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: MB-55318	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 55318	RunNo: 72063								
Prep Date: 9/21/2020	Analysis Date: 9/22/2020	SeqNo: 2524687	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.2		10.00		72.3	30.4	154			

Sample ID: MB-55322	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 55322	RunNo: 72063								
Prep Date: 9/21/2020	Analysis Date: 9/22/2020	SeqNo: 2524688	Units: %Rec							
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: MB-55325	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 55325	RunNo: 72063								
Prep Date: 9/21/2020	Analysis Date: 9/22/2020	SeqNo: 2524689	Units: %Rec							
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

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: mb-55300	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 55300	RunNo: 72044								
Prep Date: 9/21/2020	Analysis Date: 9/23/2020	SeqNo: 2523843	Units: mg/Kg							
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: lcs-55300	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 55300	RunNo: 72044								
Prep Date: 9/21/2020	Analysis Date: 9/22/2020	SeqNo: 2523844	Units: mg/Kg							
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: mb-55300	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 55300	RunNo: 72044								
Prep Date: 9/21/2020	Analysis Date: 9/23/2020	SeqNo: 2523891	Units: mg/Kg							
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: LCS-55300	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 55300	RunNo: 72044								
Prep Date: 9/21/2020	Analysis Date: 9/22/2020	SeqNo: 2523892	Units: mg/Kg							
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°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: *Em 9/18/20*

Special Handling (if applicable)

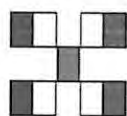
15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

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				

[illegible]

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

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

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 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 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	200	60		mg/Kg	20	8/3/2020 4:26:15 PM	54133
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
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
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
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.

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		

Page 1 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 3:26:27 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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		

Page 2 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	340	60		mg/Kg	20	8/3/2020 4:28:29 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 3 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 5:05:44 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 4 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	68	60		mg/Kg	20	8/3/2020 5:18:09 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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		

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	67	60		mg/Kg	20	8/3/2020 5:30:34 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 6 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	310	60		mg/Kg	20	8/3/2020 5:42:58 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 7 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 5:55:23 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 8 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 6:32:38 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 9 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 6:45:02 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 10 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 6:57:26 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 11 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	230	60		mg/Kg	20	8/3/2020 7:09:50 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 12 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	120	60		mg/Kg	20	8/3/2020 7:22:14 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 13 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 7:34:39 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 14 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	67	60		mg/Kg	20	8/3/2020 7:47:04 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 15 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	200	60		mg/Kg	20	8/3/2020 7:59:29 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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		

Page 16 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	200	59		mg/Kg	20	8/3/2020 8:11:53 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 17 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 8:24:17 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 18 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	59		mg/Kg	20	8/3/2020 9:01:30 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 19 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/3/2020 9:13:55 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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.

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		

Page 20 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	80	60		mg/Kg	20	8/3/2020 9:26:20 PM	54130
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8015D: GASOLINE RANGE							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
EPA METHOD 8021B: VOLATILES							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		

Page 21 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	430	60		mg/Kg	20	8/3/2020 5:03:30 PM	54133
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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		

Page 22 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	79	60		mg/Kg	20	8/3/2020 5:40:44 PM	54133
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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.

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		

Page 23 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	180	60		mg/Kg	20	8/3/2020 8:51:50 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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.

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 & 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
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	220	60		mg/Kg	20	8/3/2020 9:28:53 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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.

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		

Page 25 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	220	60		mg/Kg	20	8/3/2020 9:41:13 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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		

Page 26 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	8/3/2020 10:18:14 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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.

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 & 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
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	8/3/2020 10:30:35 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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.

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		

Page 28 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	59		mg/Kg	20	8/3/2020 10:42:56 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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.

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 & 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
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	8/3/2020 10:55:17 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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		

Page 30 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	8/3/2020 11:07:37 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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 & 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
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	290	60		mg/Kg	20	8/3/2020 11:19:57 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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		

Page 32 of 43

Analytical Report

Lab Order 2007E37

Date Reported: 8/5/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & 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
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	8/3/2020 11:32:17 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE							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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							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
EPA METHOD 8260B: VOLATILES SHORT LIST							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.

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		

Page 33 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: MB-54130	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 54130	RunNo: 70807								
Prep Date: 8/3/2020	Analysis Date: 8/3/2020	SeqNo: 2464841 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-54130	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 54130	RunNo: 70807								
Prep Date: 8/3/2020	Analysis Date: 8/3/2020	SeqNo: 2464842 Units: mg/Kg								
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: MB-54139	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 54139	RunNo: 70812								
Prep Date: 8/3/2020	Analysis Date: 8/3/2020	SeqNo: 2465249 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-54139	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 54139	RunNo: 70812								
Prep Date: 8/3/2020	Analysis Date: 8/3/2020	SeqNo: 2465250 Units: mg/Kg								
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: MB-54133	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 54133	RunNo: 70785								
Prep Date: 8/3/2020	Analysis Date: 8/3/2020	SeqNo: 2465333 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-54133	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 54133	RunNo: 70785								
Prep Date: 8/3/2020	Analysis Date: 8/3/2020	SeqNo: 2465334 Units: mg/Kg								
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

Page 34 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: LCS-54043	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 54043			RunNo: 70757						
Prep Date: 7/29/2020	Analysis Date: 7/30/2020			SeqNo: 2462544		Units: mg/Kg				
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: MB-54043	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 54043			RunNo: 70757						
Prep Date: 7/29/2020	Analysis Date: 7/30/2020			SeqNo: 2462545		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		114	30.4	154			

Sample ID: MB-54047	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 54047			RunNo: 70804						
Prep Date: 7/29/2020	Analysis Date: 7/31/2020			SeqNo: 2464707		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		99.4	30.4	154			

Sample ID: MB-54051	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 54051			RunNo: 70804						
Prep Date: 7/29/2020	Analysis Date: 7/31/2020			SeqNo: 2464708		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		124	30.4	154			

Sample ID: LCS-54047	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 54047			RunNo: 70804						
Prep Date: 7/29/2020	Analysis Date: 7/31/2020			SeqNo: 2464709		Units: mg/Kg				
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

Page 35 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: LCS-54051	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 54051		RunNo: 70804							
Prep Date: 7/29/2020	Analysis Date: 7/31/2020		SeqNo: 2464710		Units: mg/Kg					
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: 2007E37-002AMS	SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: AH-2 Surface	Batch ID: 54047		RunNo: 70804							
Prep Date: 7/29/2020	Analysis Date: 7/31/2020		SeqNo: 2464755		Units: mg/Kg					
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: 2007E37-002AMSD	SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: AH-2 Surface	Batch ID: 54047		RunNo: 70804							
Prep Date: 7/29/2020	Analysis Date: 7/31/2020		SeqNo: 2464758		Units: mg/Kg					
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

Page 36 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: 2007e37-002ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: AH-2 Surface	Batch ID: 54044	RunNo: 70754								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462779 Units: mg/Kg								
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: 2007e37-002amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: AH-2 Surface	Batch ID: 54044	RunNo: 70754								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462780 Units: mg/Kg								
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: lcs-54044	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 54044	RunNo: 70754								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462804 Units: mg/Kg								
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: mb-54044	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 54044	RunNo: 70754								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462805 Units: mg/Kg								
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:

* 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: 2007e37-003ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: AH-3 H-West	Batch ID: 54044	RunNo: 70754								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462879	Units: mg/Kg							
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: 2007e37-003amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: AH-3 H-West	Batch ID: 54044	RunNo: 70754								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462880	Units: mg/Kg							
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: LCS-54044	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 54044	RunNo: 70754								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462903	Units: mg/Kg							
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: mb-54044	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 54044	RunNo: 70754								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462904	Units: mg/Kg							
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: mb-54042	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 54042	RunNo: 70747								
Prep Date: 7/29/2020	Analysis Date: 7/30/2020	SeqNo: 2462167	Units: mg/Kg							
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: lcs-54042	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 54042	RunNo: 70747								
Prep Date: 7/29/2020	Analysis Date: 7/30/2020	SeqNo: 2462168	Units: mg/Kg							
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: mb-54045	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 54045	RunNo: 70747								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462218	Units: mg/Kg							
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: Ics-54045	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 54045	RunNo: 70747								
Prep Date: 7/29/2020	Analysis Date: 7/30/2020	SeqNo: 2462219	Units: mg/Kg							
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: 2007e37-022ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: AH-24 Surface	Batch ID: 54045	RunNo: 70747								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462221	Units: mg/Kg							
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: 2007e37-022amsd	SampType: MSD4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: AH-24 Surface	Batch ID: 54045	RunNo: 70747								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462222	Units: mg/Kg							
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: mb-54070	SampType: MBLK			TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: PBS	Batch ID: 54070			RunNo: 70769						
Prep Date: 7/30/2020	Analysis Date: 7/31/2020			SeqNo: 2462806		Units: %Rec				
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: lcs-54070	SampType: LCS4			TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: BatchQC	Batch ID: 54070			RunNo: 70769						
Prep Date: 7/30/2020	Analysis Date: 7/31/2020			SeqNo: 2462807		Units: %Rec				
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: mb1	SampType: MBLK			TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: PBS	Batch ID: S70775			RunNo: 70775						
Prep Date:	Analysis Date: 8/1/2020			SeqNo: 2463032		Units: %Rec				
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: 100ng lcs	SampType: LCS4			TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: BatchQC	Batch ID: S70775			RunNo: 70775						
Prep Date:	Analysis Date: 8/1/2020			SeqNo: 2463033		Units: %Rec				
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: mb-54042	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 54042			RunNo: 70747						
Prep Date: 7/29/2020	Analysis Date: 7/30/2020			SeqNo: 2462229		Units: mg/Kg				
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: lcs-54042	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 54042			RunNo: 70747						
Prep Date: 7/29/2020	Analysis Date: 7/30/2020			SeqNo: 2462230		Units: mg/Kg				
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: mb-54045	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 54045			RunNo: 70747						
Prep Date: 7/29/2020	Analysis Date: 7/31/2020			SeqNo: 2462278		Units: mg/Kg				
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: lcs-54045	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 54045			RunNo: 70747						
Prep Date: 7/29/2020	Analysis Date: 7/31/2020			SeqNo: 2462279		Units: mg/Kg				
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: 2007e37-023ams	SampType: MS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: AH-24 1ft	Batch ID: 54045			RunNo: 70747						
Prep Date: 7/29/2020	Analysis Date: 7/31/2020			SeqNo: 2462282		Units: mg/Kg				
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: 2007e37-023amsd	SampType: MSD			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: AH-24 1ft	Batch ID: 54045			RunNo: 70747						
Prep Date: 7/29/2020	Analysis Date: 7/31/2020			SeqNo: 2462283		Units: mg/Kg				
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: 2007e37-023amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: AH-24 1ft	Batch ID: 54045	RunNo: 70747								
Prep Date: 7/29/2020	Analysis Date: 7/31/2020	SeqNo: 2462283	Units: mg/Kg							
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: mb-54070	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 54070	RunNo: 70769								
Prep Date: 7/30/2020	Analysis Date: 7/31/2020	SeqNo: 2462847	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	520		500.0		103	70	130			

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

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

Sample ID: 2.5ug gro lcs	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: G70775	RunNo: 70775								
Prep Date:	Analysis Date: 8/1/2020	SeqNo: 2463071	Units: %Rec							
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°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. 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.

Date

Time

Matrix

Sample Name

Time

Matrix

Sample Name

Time

Matrix

Sample Name

Time

Matrix

Sample Name

Time

Matrix

Sample Name

Time

Matrix

Sample Name

Time

Matrix

Sample Name

Time

Matrix

Sample Name

Time

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, NO₃, NO₂, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

Chloride

Remarks: $3.9 \pm 0 = 3.9$
 $2.3 \pm 0 = 2.3$
 $4.9 \pm 0 = 4.9$

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

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

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.

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	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.

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	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

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	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

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	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: _____ 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: _____

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 159662

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 159662
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

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