DEVON ENERGY
Cotton Draw Unit #154H

Remediation/Closure Plan
(Performed under the most stringent criteria from 19.15.29 NMAC)

U/L O, Section 34, T24S, R31E
Eddy County, New Mexico

NAB1814139729; 2RP-4759

September 3, 2020

Prepared for:

Devon Energy
6488 Seven Rivers Hwy
Artesia, NM 88210

By:

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

Company Contacts

Representative	Company	Telephone	E-mail
Tom Bynum	Devon Energy	580-748-1613	Tom.Bynum@dvn.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was contracted by Devon Energy to assess a spill at the Cotton Draw Unit #154H. This site is situated in U/L O, Section 34, Township 24S and Range 31E, in Eddy County New Mexico. The contaminated area was mapped at the time of discovery.

According to the C-141 for incident NAB1814139729, a compromised balon check valve caused a discharge line release into the pasture between the location and the road just south of location. The spill did not run onto the road.

Surface and Ground Water

According to the NMOCD Oil and Gas Map, there is no surface water within 3,000 feet of this location and spill area. Based on the Chevron trend map, depth to groundwater appears to be around 400ft bgs; however, since no groundwater depth sources can be found within a half mile of the spill area, SESI will remediate this spill according to the most stringent criteria established in 19.15.29 NMAC.

Characterization

The site has been fully delineated according to the NMOCD NMAC 19.15.29 published guidelines. Vertical delineation was established by advancing six auger holes at various locations and depths. Horizontal delineation was achieved during remediation. All vertical samples were conducted at the surface and one foot increments until the most stringent criteria of 600 mg/Kg for chlorides, 100 mg/kg for TPH, 10 mg/kg for Benzene, and 50 mg/kg for BTEX was reached.

Work Performed, Initial sampling event

On March 26, 2020, SESI personnel gathered samples at six different places within the spill area at the surface and one foot increments. The samples were field tested for TPH and Chloride concentrations then properly packaged, preserved, and transported to Hall Environmental Laboratory. The results of the sampling are detailed below:

Devon Energy Cotton Draw Unit #154H Soil Sample Results: Hall Environmental Laboratory 3/26/20								
SAMPLE ID	**Chloride**	**DRO**	**MRO**	**GRO**	**Benzene**	**Toluene**	**Ethyl benzene**	**Total Xylenes**
AH1 @ Surface	**3200**	**100**	**63**	ND	ND	ND	ND	ND
AH1 @ 1'	**2000**	**78**	**55**	ND	ND	ND	ND	ND
AH1 @ 2'	**1500**	ND	ND	ND	ND	ND	ND	ND
AH1 @ 3'	**60**	**20**	ND	ND	ND	ND	ND	ND
AH2 @ Surface	**160**	**320**	**400**	ND	ND	ND	ND	ND
AH2 @ 1'	ND	**19**	ND	ND	ND	ND	ND	ND
AH3 @ Surface	**1500**	ND	ND	ND	ND	ND	ND	ND
AH3 @ 1'	**160**	**280**	**330**	ND	ND	ND	ND	ND
AH3 @ 2'	ND	**19**	ND	ND	ND	ND	ND	ND
AH4 @ Surface	**180**	**310**	**380**	ND	ND	ND	ND	ND
AH4 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
AH5 @ Surface	**1500**	ND	ND	ND	ND	ND	ND	ND
AH5 @ 1'	**180**	**330**	**440**	ND	ND	ND	ND	ND
AH5 @ 2'	ND	ND	ND	ND	ND	ND	ND	ND
AH6 @ Surface	**170**	**300**	**350**	ND	ND	ND	ND	ND
AH6 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND

Action Plan/Remediation

Based on the results of the lab analysis, and lack of depth to groundwater determination, SESI made the decision to remediate this spill to the most stringent closure criteria. Therefore, in April of this year, the area around SP1 was excavated to a depth of 3 feet and the remaining leak area was excavated to a depth of 1.5 feet. A backhoe and shovels were used to remove one hundred and sixty yards of soil which were disposed of in a NMOCD approved landfill.

SESI obtained bottom and sidewall confirmation samples at 12 various locations in and around the excavated area. The samples were properly preserved and sent to Hall Environmental Labs. The results of the sampling analysis are captured in the table below:

Devon Energy Cotton Draw Unit #154H Soil Sample Results: Hall Environmental Laboratory 4/3/20								
SAMPLE ID	**Chloride**	**DRO**	**MRO**	**GRO**	**Benzene**	**Toluene**	**Ethyl benzene**	**Total Xylenes**
SP1 @ BTM 3’	ND	ND	ND	ND	ND	ND	ND	ND
SP2 @ BTM 3’	ND	ND	ND	ND	ND	ND	ND	ND
SP3 @ N WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP4 @ W WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP5 @ BTM 1.5’	ND	ND	ND	ND	ND	ND	ND	ND
SP6 @ N WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP7 @ BTM 1.5’	ND	ND	ND	ND	ND	ND	ND	ND
SP8 @ W WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP9 @ W WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP10 @ BTM 1.5’	ND	ND	ND	ND	ND	ND	ND	ND
SP11 @ BTM 1.5’	ND	ND	ND	ND	ND	ND	ND	ND
SP12 @ N WALL	ND	ND	ND	ND	ND	ND	ND	ND

Based on the results of the confirmation bottom, sidewall, and horizontal extent sampling, SESI determined the site had been properly remediated; therefore, clean backfill was placed in the excavated area.

Closure Request

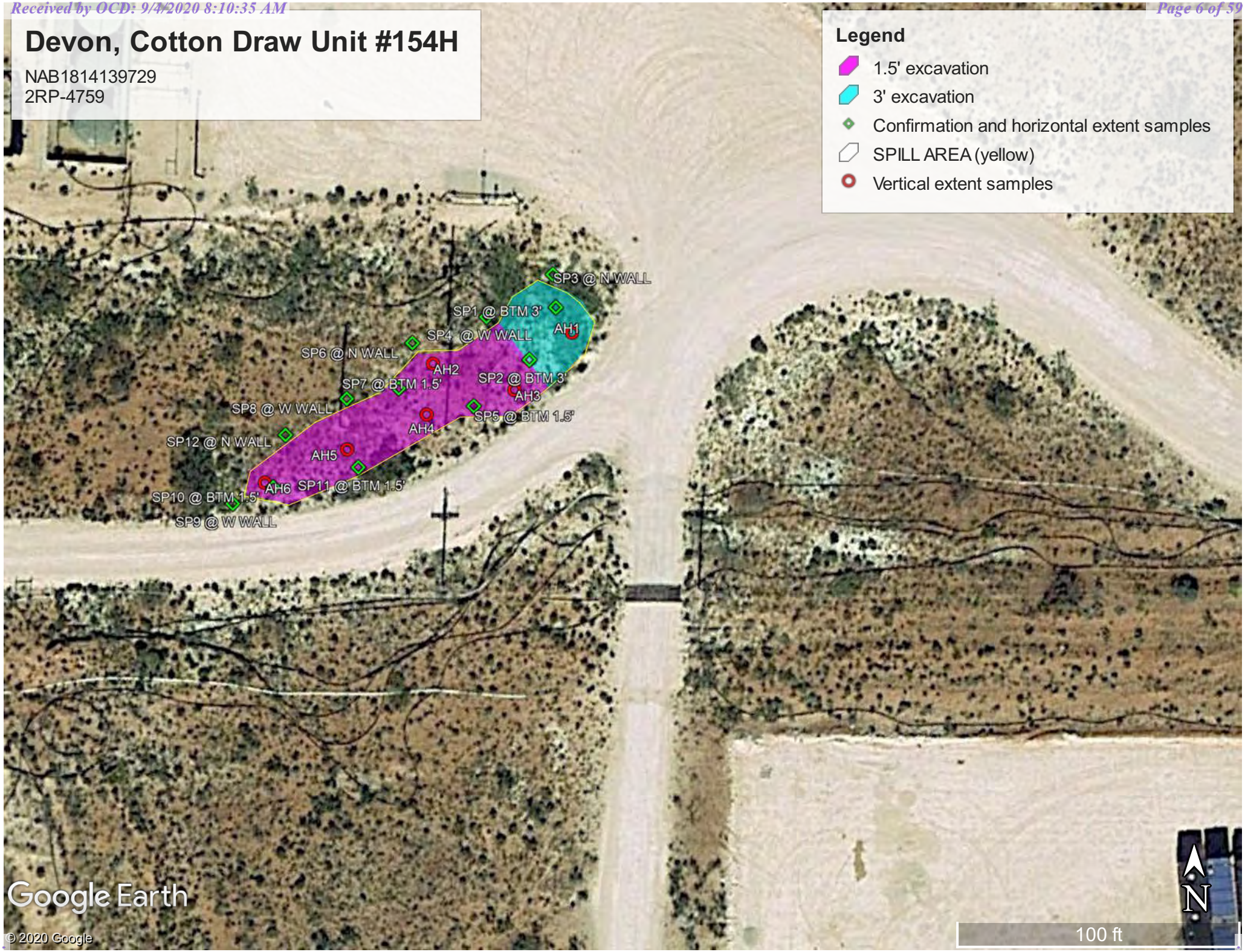
Based on the evidence presented by the data, SESI and Devon believe this site was properly delineated and remediated according to the most stringent criteria set forth by NMOCD. Therefore, we would like to respectfully request closure approval for this incident (NAB1814139729).

Supplemental and Supporting Documentation

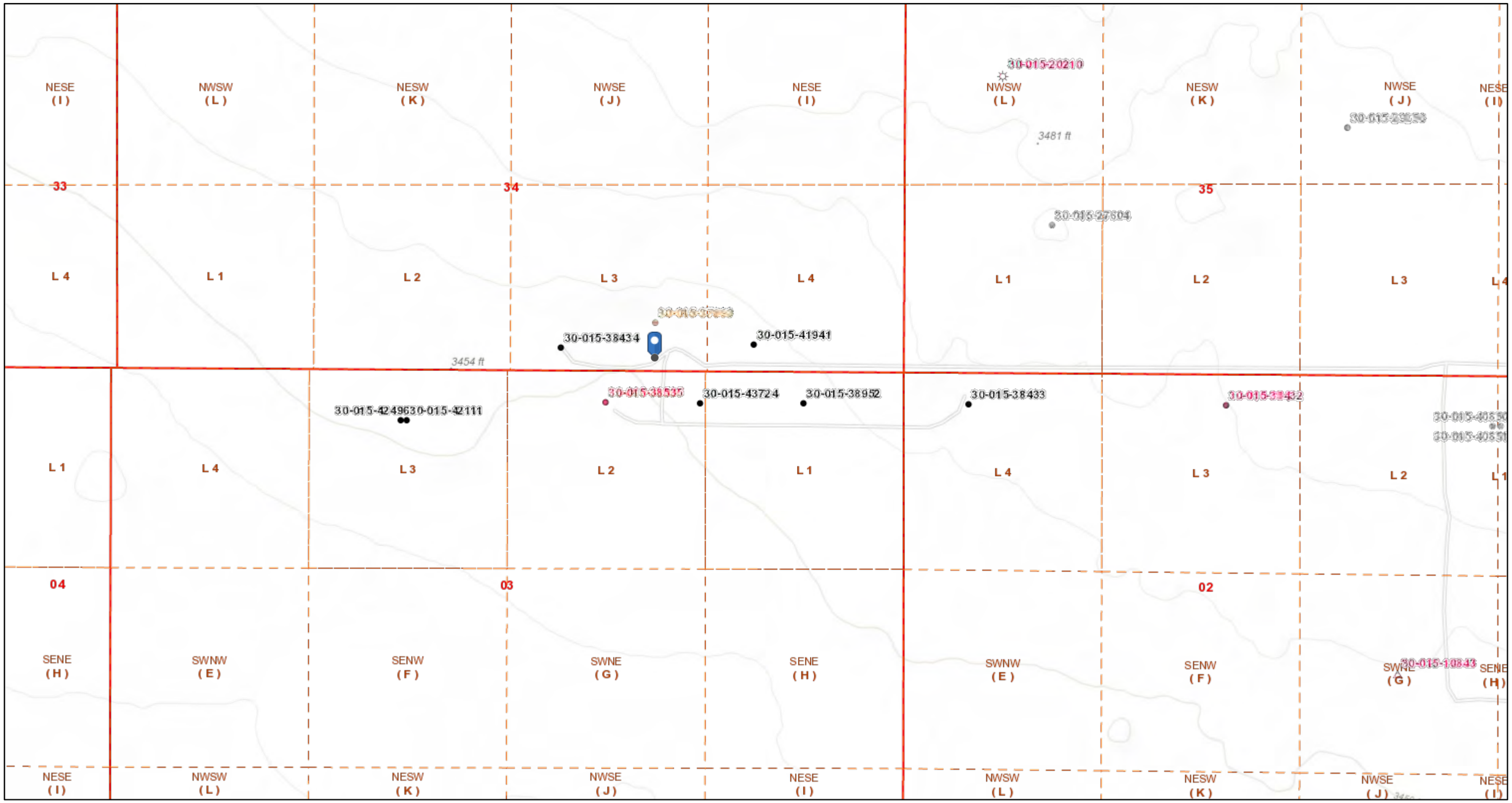
Evidence Document 1: Map of leak area with sample points and excavation depths
Evidence Document 2: NMOCD Oil and Gas Topo map
Evidence Document 3: BLM Cave Karst map showing location in low potential area
Evidence Document 4: FEMA demonstrating minimal flood hazards for this area
Evidence Document 5: Laboratory analysis
Evidence Document 6: Photos of the remediated area prior to backfill
Evidence Document 7: C-141, pgs. 3-6

Devon, Cotton Draw Unit #154H

NAB1814139729
2RP-4759



Devon, CDU 154H--Topo map with water features



5/13/2020, 2:45:20 PM

1:9,028

Wells - Large Scale

- undefined
- Miscellaneous
- CO2, Active
- CO2, Cancelled
- CO2, New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas, Active
- Gas, Cancelled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection, Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New

0 0.07 0.15 0.3 mi

0 0.15 0.3 0.6 km

Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI,

BLM CAVE KARST MAP

Devon, Cotton Draw Unit 154H
2RP-4759
NAB1814139729

Legend

- Low potential
- Spill area (yellow)

Google Earth

N

200 ft

National Flood Hazard Layer FIRMette

FEMA

32°10'16.39"N

103°46'3.92"W

103°45'26.46"W

32°9'45.94"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/13/2020 at 4:08:07 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 03, 2020

Bob Allen

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

RE: Devon Cotton Draw 154 WO#20843059 OrderNo.: 2003C09

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 16 sample(s) on 3/27/2020 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-1 Surface
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 10:05:00 AM
Lab ID: 2003C09-001 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	3200	150		mg/Kg	50	3/31/2020 5:43:16 PM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/31/2020 4:40:20 PM	51391
Surr: BFB	93.5	70-130		%Rec	1	3/31/2020 4:40:20 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	100	9.1		mg/Kg	1	3/31/2020 9:34:06 PM	51398
Motor Oil Range Organics (MRO)	63	46		mg/Kg	1	3/31/2020 9:34:06 PM	51398
Surr: DNOP	72.7	55.1-146		%Rec	1	3/31/2020 9:34:06 PM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 4:40:20 PM	51391
Toluene	ND	0.049		mg/Kg	1	3/31/2020 4:40:20 PM	51391
Ethylbenzene	ND	0.049		mg/Kg	1	3/31/2020 4:40:20 PM	51391
Xylenes, Total	ND	0.099		mg/Kg	1	3/31/2020 4:40:20 PM	51391
Surr: 1,2-Dichloroethane-d4	97.5	70-130		%Rec	1	3/31/2020 4:40:20 PM	51391
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	1	3/31/2020 4:40:20 PM	51391
Surr: Dibromofluoromethane	97.4	70-130		%Rec	1	3/31/2020 4:40:20 PM	51391
Surr: Toluene-d8	106	70-130		%Rec	1	3/31/2020 4:40:20 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-1 1ft
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 10:15:00 AM
Lab ID: 2003C09-002 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2000	59		mg/Kg	20	3/30/2020 10:27:42 PM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/31/2020 6:05:56 PM	51391
Surr: BFB	98.4	70-130		%Rec	1	3/31/2020 6:05:56 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	78	9.1		mg/Kg	1	3/31/2020 10:40:31 PM	51398
Motor Oil Range Organics (MRO)	55	46		mg/Kg	1	3/31/2020 10:40:31 PM	51398
Surr: DNOP	77.2	55.1-146		%Rec	1	3/31/2020 10:40:31 PM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 6:05:56 PM	51391
Toluene	ND	0.049		mg/Kg	1	3/31/2020 6:05:56 PM	51391
Ethylbenzene	ND	0.049		mg/Kg	1	3/31/2020 6:05:56 PM	51391
Xylenes, Total	ND	0.099		mg/Kg	1	3/31/2020 6:05:56 PM	51391
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%Rec	1	3/31/2020 6:05:56 PM	51391
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	3/31/2020 6:05:56 PM	51391
Surr: Dibromofluoromethane	93.8	70-130		%Rec	1	3/31/2020 6:05:56 PM	51391
Surr: Toluene-d8	107	70-130		%Rec	1	3/31/2020 6:05:56 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-1 2ft
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 10:30:00 AM
Lab ID: 2003C09-003 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1500	61		mg/Kg	20	3/30/2020 10:40:02 PM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/31/2020 7:31:27 PM	51391
Surr: BFB	95.3	70-130		%Rec	1	3/31/2020 7:31:27 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/31/2020 11:02:40 PM	51398
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/31/2020 11:02:40 PM	51398
Surr: DNOP	74.1	55.1-146		%Rec	1	3/31/2020 11:02:40 PM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 7:31:27 PM	51391
Toluene	ND	0.049		mg/Kg	1	3/31/2020 7:31:27 PM	51391
Ethylbenzene	ND	0.049		mg/Kg	1	3/31/2020 7:31:27 PM	51391
Xylenes, Total	ND	0.098		mg/Kg	1	3/31/2020 7:31:27 PM	51391
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%Rec	1	3/31/2020 7:31:27 PM	51391
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	1	3/31/2020 7:31:27 PM	51391
Surr: Dibromofluoromethane	99.1	70-130		%Rec	1	3/31/2020 7:31:27 PM	51391
Surr: Toluene-d8	104	70-130		%Rec	1	3/31/2020 7:31:27 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-1 3ft
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 10:40:00 AM
Lab ID: 2003C09-004 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	60	60		mg/Kg	20	3/30/2020 10:52:23 PM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/31/2020 7:59:55 PM	51391
Surr: BFB	97.0	70-130		%Rec	1	3/31/2020 7:59:55 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	20	8.9		mg/Kg	1	3/31/2020 11:24:47 PM	51398
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	3/31/2020 11:24:47 PM	51398
Surr: DNOP	76.7	55.1-146		%Rec	1	3/31/2020 11:24:47 PM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 7:59:55 PM	51391
Toluene	ND	0.050		mg/Kg	1	3/31/2020 7:59:55 PM	51391
Ethylbenzene	ND	0.050		mg/Kg	1	3/31/2020 7:59:55 PM	51391
Xylenes, Total	ND	0.099		mg/Kg	1	3/31/2020 7:59:55 PM	51391
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	3/31/2020 7:59:55 PM	51391
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	3/31/2020 7:59:55 PM	51391
Surr: Dibromofluoromethane	95.2	70-130		%Rec	1	3/31/2020 7:59:55 PM	51391
Surr: Toluene-d8	107	70-130		%Rec	1	3/31/2020 7:59:55 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-2 Surface
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 11:10:00 AM
Lab ID: 2003C09-005 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	160	60		mg/Kg	20	3/30/2020 11:04:44 PM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/31/2020 8:28:22 PM	51391
Surr: BFB	98.0	70-130		%Rec	1	3/31/2020 8:28:22 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	320	46		mg/Kg	5	4/1/2020 6:24:30 PM	51398
Motor Oil Range Organics (MRO)	400	230		mg/Kg	5	4/1/2020 6:24:30 PM	51398
Surr: DNOP	93.4	55.1-146		%Rec	5	4/1/2020 6:24:30 PM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 8:28:22 PM	51391
Toluene	ND	0.050		mg/Kg	1	3/31/2020 8:28:22 PM	51391
Ethylbenzene	ND	0.050		mg/Kg	1	3/31/2020 8:28:22 PM	51391
Xylenes, Total	ND	0.10		mg/Kg	1	3/31/2020 8:28:22 PM	51391
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	1	3/31/2020 8:28:22 PM	51391
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	3/31/2020 8:28:22 PM	51391
Surr: Dibromofluoromethane	99.4	70-130		%Rec	1	3/31/2020 8:28:22 PM	51391
Surr: Toluene-d8	106	70-130		%Rec	1	3/31/2020 8:28:22 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-2 1ft
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 11:20:00 AM
Lab ID: 2003C09-006 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	61		mg/Kg	20	3/30/2020 11:17:05 PM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/31/2020 8:56:59 PM	51391
Surr: BFB	99.0	70-130		%Rec	1	3/31/2020 8:56:59 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	19	9.1		mg/Kg	1	4/1/2020 12:08:59 AM	51398
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/1/2020 12:08:59 AM	51398
Surr: DNOP	77.3	55.1-146		%Rec	1	4/1/2020 12:08:59 AM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	3/31/2020 8:56:59 PM	51391
Toluene	ND	0.048		mg/Kg	1	3/31/2020 8:56:59 PM	51391
Ethylbenzene	ND	0.048		mg/Kg	1	3/31/2020 8:56:59 PM	51391
Xylenes, Total	ND	0.097		mg/Kg	1	3/31/2020 8:56:59 PM	51391
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	3/31/2020 8:56:59 PM	51391
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	3/31/2020 8:56:59 PM	51391
Surr: Dibromofluoromethane	97.6	70-130		%Rec	1	3/31/2020 8:56:59 PM	51391
Surr: Toluene-d8	103	70-130		%Rec	1	3/31/2020 8:56:59 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-3 Surface
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 11:30:00 AM
Lab ID: 2003C09-007 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1500	61		mg/Kg	20	3/30/2020 11:29:26 PM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/31/2020 9:25:25 PM	51391
Surr: BFB	97.2	70-130		%Rec	1	3/31/2020 9:25:25 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	4/1/2020 12:31:03 AM	51398
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/1/2020 12:31:03 AM	51398
Surr: DNOP	77.9	55.1-146		%Rec	1	4/1/2020 12:31:03 AM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 9:25:25 PM	51391
Toluene	ND	0.049		mg/Kg	1	3/31/2020 9:25:25 PM	51391
Ethylbenzene	ND	0.049		mg/Kg	1	3/31/2020 9:25:25 PM	51391
Xylenes, Total	ND	0.098		mg/Kg	1	3/31/2020 9:25:25 PM	51391
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%Rec	1	3/31/2020 9:25:25 PM	51391
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	3/31/2020 9:25:25 PM	51391
Surr: Dibromofluoromethane	97.6	70-130		%Rec	1	3/31/2020 9:25:25 PM	51391
Surr: Toluene-d8	108	70-130		%Rec	1	3/31/2020 9:25:25 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-3 1ft
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 11:45:00 AM
Lab ID: 2003C09-008 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	160	60		mg/Kg	20	3/30/2020 11:41:47 PM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/31/2020 9:53:53 PM	51391
Surr: BFB	96.4	70-130		%Rec	1	3/31/2020 9:53:53 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	280	19		mg/Kg	2	4/1/2020 6:48:58 PM	51398
Motor Oil Range Organics (MRO)	330	97		mg/Kg	2	4/1/2020 6:48:58 PM	51398
Surr: DNOP	107	55.1-146		%Rec	2	4/1/2020 6:48:58 PM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 9:53:53 PM	51391
Toluene	ND	0.050		mg/Kg	1	3/31/2020 9:53:53 PM	51391
Ethylbenzene	ND	0.050		mg/Kg	1	3/31/2020 9:53:53 PM	51391
Xylenes, Total	ND	0.10		mg/Kg	1	3/31/2020 9:53:53 PM	51391
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%Rec	1	3/31/2020 9:53:53 PM	51391
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	3/31/2020 9:53:53 PM	51391
Surr: Dibromofluoromethane	99.3	70-130		%Rec	1	3/31/2020 9:53:53 PM	51391
Surr: Toluene-d8	102	70-130		%Rec	1	3/31/2020 9:53:53 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-3 2ft
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 12:00:00 PM
Lab ID: 2003C09-009 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	3/30/2020 11:54:08 PM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/31/2020 10:22:33 PM	51391
Surr: BFB	98.2	70-130		%Rec	1	3/31/2020 10:22:33 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	19	9.1		mg/Kg	1	4/1/2020 1:15:20 AM	51398
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/1/2020 1:15:20 AM	51398
Surr: DNOP	81.7	55.1-146		%Rec	1	4/1/2020 1:15:20 AM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 10:22:33 PM	51391
Toluene	ND	0.049		mg/Kg	1	3/31/2020 10:22:33 PM	51391
Ethylbenzene	ND	0.049		mg/Kg	1	3/31/2020 10:22:33 PM	51391
Xylenes, Total	ND	0.099		mg/Kg	1	3/31/2020 10:22:33 PM	51391
Surr: 1,2-Dichloroethane-d4	92.6	70-130		%Rec	1	3/31/2020 10:22:33 PM	51391
Surr: 4-Bromofluorobenzene	94.6	70-130		%Rec	1	3/31/2020 10:22:33 PM	51391
Surr: Dibromofluoromethane	100	70-130		%Rec	1	3/31/2020 10:22:33 PM	51391
Surr: Toluene-d8	108	70-130		%Rec	1	3/31/2020 10:22:33 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-4 Surface
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 12:10:00 PM
Lab ID: 2003C09-010 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	180	60		mg/Kg	20	3/31/2020 12:31:11 AM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/31/2020 10:51:26 PM	51391
Surr: BFB	99.6	70-130		%Rec	1	3/31/2020 10:51:26 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	310	19		mg/Kg	2	4/1/2020 7:13:19 PM	51398
Motor Oil Range Organics (MRO)	380	96		mg/Kg	2	4/1/2020 7:13:19 PM	51398
Surr: DNOP	108	55.1-146		%Rec	2	4/1/2020 7:13:19 PM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 10:51:26 PM	51391
Toluene	ND	0.050		mg/Kg	1	3/31/2020 10:51:26 PM	51391
Ethylbenzene	ND	0.050		mg/Kg	1	3/31/2020 10:51:26 PM	51391
Xylenes, Total	ND	0.099		mg/Kg	1	3/31/2020 10:51:26 PM	51391
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%Rec	1	3/31/2020 10:51:26 PM	51391
Surr: 4-Bromofluorobenzene	95.1	70-130		%Rec	1	3/31/2020 10:51:26 PM	51391
Surr: Dibromofluoromethane	103	70-130		%Rec	1	3/31/2020 10:51:26 PM	51391
Surr: Toluene-d8	106	70-130		%Rec	1	3/31/2020 10:51:26 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-4 1ft
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 12:20:00 PM
Lab ID: 2003C09-011 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	59		mg/Kg	20	3/31/2020 12:43:32 AM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/31/2020 11:20:13 PM	51391
Surr: BFB	96.0	70-130		%Rec	1	3/31/2020 11:20:13 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	4/1/2020 2:21:43 AM	51398
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/1/2020 2:21:43 AM	51398
Surr: DNOP	74.7	55.1-146		%Rec	1	4/1/2020 2:21:43 AM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 11:20:13 PM	51391
Toluene	ND	0.049		mg/Kg	1	3/31/2020 11:20:13 PM	51391
Ethylbenzene	ND	0.049		mg/Kg	1	3/31/2020 11:20:13 PM	51391
Xylenes, Total	ND	0.099		mg/Kg	1	3/31/2020 11:20:13 PM	51391
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%Rec	1	3/31/2020 11:20:13 PM	51391
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	3/31/2020 11:20:13 PM	51391
Surr: Dibromofluoromethane	100	70-130		%Rec	1	3/31/2020 11:20:13 PM	51391
Surr: Toluene-d8	104	70-130		%Rec	1	3/31/2020 11:20:13 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-5 Surface
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 12:45:00 PM
Lab ID: 2003C09-012 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1500	60		mg/Kg	20	3/31/2020 12:55:53 AM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/31/2020 11:48:58 PM	51391
Surr: BFB	98.4	70-130		%Rec	1	3/31/2020 11:48:58 PM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/1/2020 2:43:43 AM	51398
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/1/2020 2:43:43 AM	51398
Surr: DNOP	75.4	55.1-146		%Rec	1	4/1/2020 2:43:43 AM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	3/31/2020 11:48:58 PM	51391
Toluene	ND	0.049		mg/Kg	1	3/31/2020 11:48:58 PM	51391
Ethylbenzene	ND	0.049		mg/Kg	1	3/31/2020 11:48:58 PM	51391
Xylenes, Total	ND	0.099		mg/Kg	1	3/31/2020 11:48:58 PM	51391
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	3/31/2020 11:48:58 PM	51391
Surr: 4-Bromofluorobenzene	97.2	70-130		%Rec	1	3/31/2020 11:48:58 PM	51391
Surr: Dibromofluoromethane	98.4	70-130		%Rec	1	3/31/2020 11:48:58 PM	51391
Surr: Toluene-d8	105	70-130		%Rec	1	3/31/2020 11:48:58 PM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-5 1ft
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 12:55:00 PM
Lab ID: 2003C09-013 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	180	60		mg/Kg	20	3/31/2020 1:08:13 AM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/1/2020 3:39:15 AM	51391
Surr: BFB	96.5	70-130		%Rec	1	4/1/2020 3:39:15 AM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	330	46		mg/Kg	5	4/1/2020 7:37:52 PM	51398
Motor Oil Range Organics (MRO)	440	230		mg/Kg	5	4/1/2020 7:37:52 PM	51398
Surr: DNOP	91.1	55.1-146		%Rec	5	4/1/2020 7:37:52 PM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/1/2020 3:39:15 AM	51391
Toluene	ND	0.050		mg/Kg	1	4/1/2020 3:39:15 AM	51391
Ethylbenzene	ND	0.050		mg/Kg	1	4/1/2020 3:39:15 AM	51391
Xylenes, Total	ND	0.10		mg/Kg	1	4/1/2020 3:39:15 AM	51391
Surr: 1,2-Dichloroethane-d4	87.4	70-130		%Rec	1	4/1/2020 3:39:15 AM	51391
Surr: 4-Bromofluorobenzene	97.7	70-130		%Rec	1	4/1/2020 3:39:15 AM	51391
Surr: Dibromofluoromethane	94.2	70-130		%Rec	1	4/1/2020 3:39:15 AM	51391
Surr: Toluene-d8	106	70-130		%Rec	1	4/1/2020 3:39:15 AM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-5 2ft
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 1:00:00 PM
Lab ID: 2003C09-014 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	3/31/2020 1:20:33 AM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2020 4:08:03 AM	51391
Surr: BFB	98.1	70-130		%Rec	1	4/1/2020 4:08:03 AM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/1/2020 3:27:55 AM	51398
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	4/1/2020 3:27:55 AM	51398
Surr: DNOP	74.1	55.1-146		%Rec	1	4/1/2020 3:27:55 AM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/1/2020 4:08:03 AM	51391
Toluene	ND	0.049		mg/Kg	1	4/1/2020 4:08:03 AM	51391
Ethylbenzene	ND	0.049		mg/Kg	1	4/1/2020 4:08:03 AM	51391
Xylenes, Total	ND	0.098		mg/Kg	1	4/1/2020 4:08:03 AM	51391
Surr: 1,2-Dichloroethane-d4	99.3	70-130		%Rec	1	4/1/2020 4:08:03 AM	51391
Surr: 4-Bromofluorobenzene	94.6	70-130		%Rec	1	4/1/2020 4:08:03 AM	51391
Surr: Dibromofluoromethane	101	70-130		%Rec	1	4/1/2020 4:08:03 AM	51391
Surr: Toluene-d8	112	70-130		%Rec	1	4/1/2020 4:08:03 AM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-6 Surface
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 1:15:00 PM
Lab ID: 2003C09-015 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	170	60		mg/Kg	20	3/31/2020 1:32:55 AM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/1/2020 4:36:50 AM	51391
Surr: BFB	96.0	70-130		%Rec	1	4/1/2020 4:36:50 AM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	300	19		mg/Kg	2	4/1/2020 8:02:06 PM	51398
Motor Oil Range Organics (MRO)	350	94		mg/Kg	2	4/1/2020 8:02:06 PM	51398
Surr: DNOP	106	55.1-146		%Rec	2	4/1/2020 8:02:06 PM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/1/2020 4:36:50 AM	51391
Toluene	ND	0.050		mg/Kg	1	4/1/2020 4:36:50 AM	51391
Ethylbenzene	ND	0.050		mg/Kg	1	4/1/2020 4:36:50 AM	51391
Xylenes, Total	ND	0.099		mg/Kg	1	4/1/2020 4:36:50 AM	51391
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%Rec	1	4/1/2020 4:36:50 AM	51391
Surr: 4-Bromofluorobenzene	96.9	70-130		%Rec	1	4/1/2020 4:36:50 AM	51391
Surr: Dibromofluoromethane	98.3	70-130		%Rec	1	4/1/2020 4:36:50 AM	51391
Surr: Toluene-d8	114	70-130		%Rec	1	4/1/2020 4:36:50 AM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003C09**
Date Reported: **4/3/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety Env Solutions
Client Sample ID: AH-6 1ft
Project: Devon Cotton Draw 154 WO#20843059
Collection Date: 3/26/2020 1:30:00 PM
Lab ID: 2003C09-016 **Matrix:** SOIL
Received Date: 3/27/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	3/31/2020 1:45:16 AM	51423
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2020 5:05:38 AM	51391
Surr: BFB	96.9	70-130		%Rec	1	4/1/2020 5:05:38 AM	51391
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/1/2020 4:12:09 AM	51398
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/1/2020 4:12:09 AM	51398
Surr: DNOP	77.9	55.1-146		%Rec	1	4/1/2020 4:12:09 AM	51398
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/1/2020 5:05:38 AM	51391
Toluene	ND	0.049		mg/Kg	1	4/1/2020 5:05:38 AM	51391
Ethylbenzene	ND	0.049		mg/Kg	1	4/1/2020 5:05:38 AM	51391
Xylenes, Total	ND	0.098		mg/Kg	1	4/1/2020 5:05:38 AM	51391
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%Rec	1	4/1/2020 5:05:38 AM	51391
Surr: 4-Bromofluorobenzene	95.3	70-130		%Rec	1	4/1/2020 5:05:38 AM	51391
Surr: Dibromofluoromethane	98.1	70-130		%Rec	1	4/1/2020 5:05:38 AM	51391
Surr: Toluene-d8	108	70-130		%Rec	1	4/1/2020 5:05:38 AM	51391

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2003C09**
03-Apr-20

Client: Safety Env Solutions
Project: Devon Cotton Draw 154 WO#20843059

Sample ID: **MB-51423** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **51423** RunNo: **67715**
Prep Date: **3/30/2020** Analysis Date: **3/30/2020** SeqNo: **2337858** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-51423** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **51423** RunNo: **67715**
Prep Date: **3/30/2020** Analysis Date: **3/30/2020** SeqNo: **2337859** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative 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#: **2003C09**
03-Apr-20

Client: Safety Env Solutions
Project: Devon Cotton Draw 154 WO#20843059

Sample ID: **2003C09-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **AH-1 Surface** Batch ID: **51398** RunNo: **67719**
Prep Date: **3/30/2020** Analysis Date: **3/31/2020** SeqNo: **2338944** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	160	9.3	46.51	101.4	133	47.4	136			
Surr: DNOP	3.5		4.651		74.9	55.1	146			

Sample ID: **2003C09-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **AH-1 Surface** Batch ID: **51398** RunNo: **67719**
Prep Date: **3/30/2020** Analysis Date: **3/31/2020** SeqNo: **2338945** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	140	9.6	48.03	101.4	72.8	47.4	136	17.9	43.4	
Surr: DNOP	3.7		4.803		76.5	55.1	146	0	0	

Sample ID: **LCS-51398** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **51398** RunNo: **67719**
Prep Date: **3/30/2020** Analysis Date: **3/31/2020** SeqNo: **2338977** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.0	70	130			
Surr: DNOP	2.8		5.000		55.9	55.1	146			

Sample ID: **MB-51398** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **51398** RunNo: **67719**
Prep Date: **3/30/2020** Analysis Date: **3/31/2020** SeqNo: **2338978** 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	6.4		10.00		64.0	55.1	146			

Sample ID: **LCS-51433** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **51433** RunNo: **67718**
Prep Date: **3/31/2020** Analysis Date: **4/2/2020** SeqNo: **2340681** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.9	55.1	146			

Sample ID: **MB-51433** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **51433** RunNo: **67718**
Prep Date: **3/31/2020** Analysis Date: **4/1/2020** SeqNo: **2340683** Units: **%Rec**

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 Quanitative 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#: **2003C09**

03-Apr-20

Client: Safety Env Solutions

Project: Devon Cotton Draw 154 WO#20843059

Sample ID: **MB-51433**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **51433**	RunNo: **67718**							
Prep Date: **3/31/2020**	Analysis Date: **4/1/2020**	SeqNo: **2340683**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		98.6	55.1	146			

Sample ID: **LCS-51460**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **51460**	RunNo: **67718**							
Prep Date: **3/31/2020**	Analysis Date: **4/2/2020**	SeqNo: **2341419**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	55.1	146			

Sample ID: **MB-51460**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **51460**	RunNo: **67718**							
Prep Date: **3/31/2020**	Analysis Date: **4/2/2020**	SeqNo: **2341420**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		113	55.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative 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#: **2003C09**
03-Apr-20

Client: Safety Env Solutions
Project: Devon Cotton Draw 154 WO#20843059

Sample ID: **2003c09-002ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **AH-1 1ft** Batch ID: **51391** RunNo: **67743**
Prep Date: **3/29/2020** Analysis Date: **3/31/2020** SeqNo: **2339032** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	0.9940	0	97.6	70	130			
Toluene	1.2	0.050	0.9940	0	116	70	130			
Surr: 1,2-Dichloroethane-d4	0.49		0.4970		99.3	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.4970		100	70	130			
Surr: Dibromofluoromethane	0.48		0.4970		95.8	70	130			
Surr: Toluene-d8	0.50		0.4970		100	70	130			

Sample ID: **2003c09-002amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **AH-1 1ft** Batch ID: **51391** RunNo: **67743**
Prep Date: **3/29/2020** Analysis Date: **3/31/2020** SeqNo: **2339033** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	0.9833	0	96.4	70	130	2.29	20	
Toluene	1.0	0.049	0.9833	0	107	70	130	9.54	20	
Surr: 1,2-Dichloroethane-d4	0.48		0.4916		97.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.49		0.4916		99.7	70	130	0	0	
Surr: Dibromofluoromethane	0.46		0.4916		93.8	70	130	0	0	
Surr: Toluene-d8	0.49		0.4916		99.3	70	130	0	0	

Sample ID: **lcs-51391** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **51391** RunNo: **67743**
Prep Date: **3/29/2020** Analysis Date: **3/31/2020** SeqNo: **2339048** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.025	1.000	0	83.8	70	130			
Toluene	1.1	0.050	1.000	0	108	70	130			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.3	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		87.9	70	130			
Surr: Toluene-d8	0.55		0.5000		110	70	130			

Sample ID: **mb-51391** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **51391** RunNo: **67743**
Prep Date: **3/29/2020** Analysis Date: **3/31/2020** SeqNo: **2339049** 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								

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 Quanitative 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#: **2003C09**
03-Apr-20

Client: Safety Env Solutions
Project: Devon Cotton Draw 154 WO#20843059

Sample ID: **mb-51391** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **51391** RunNo: **67743**
Prep Date: **3/29/2020** Analysis Date: **3/31/2020** SeqNo: **2339049** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.8	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.7	70	130			
Surr: Toluene-d8	0.53		0.5000		105	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 Quanitative 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#: **2003C09**
03-Apr-20

Client: Safety Env Solutions
Project: Devon Cotton Draw 154 WO#20843059

Sample ID: **2003c09-001ams** SampType: **MS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **AH-1 Surface** Batch ID: **51391** RunNo: **67743**
Prep Date: **3/29/2020** Analysis Date: **3/31/2020** SeqNo: **2339053** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.9	24.49	0	90.8	70	130			
Surr: BFB	470		489.7		96.1	70	130			

Sample ID: **2003c09-001amsd** SampType: **MSD** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **AH-1 Surface** Batch ID: **51391** RunNo: **67743**
Prep Date: **3/29/2020** Analysis Date: **3/31/2020** SeqNo: **2339054** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.39	0	95.3	70	130	4.47	20	
Surr: BFB	490		487.8		100	70	130	0	0	

Sample ID: **lcs-51391** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **51391** RunNo: **67743**
Prep Date: **3/29/2020** Analysis Date: **3/31/2020** SeqNo: **2339074** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.5	70	130			
Surr: BFB	500		500.0		100	70	130			

Sample ID: **mb-51391** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **51391** RunNo: **67743**
Prep Date: **3/29/2020** Analysis Date: **3/31/2020** SeqNo: **2339075** 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	490		500.0		98.0	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 Quanitative 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

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

Sample Log-In Check List

Client Name: **Safety Env Solutions** Work Order Number: **2003C09** RcptNo: **1**

Received By: **Juan Rojas** **3/27/2020 8:25:00 AM** Juan Rojas

Completed By: **Juan Rojas** **3/27/2020 9:20:57 AM** Juan Rojas

Reviewed By: LB 3/27/20

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° 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 preserved 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 ☐

10

# of preserved bottles checked for pH: 3/27/20 (<2 or >12 unless noted)

Adjusted?

Checked by:

Special Handling (if applicable)

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

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.5	Good				

Chain-of-Custody Record

Client: Safety + Environmental Solutions

Mailing Address: 703 E. Clinton Hobbs NM 88240

Phone #: 575-397-0510

email or Fax#:

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 day Turn
☑ Standard ☐ Rush

Project Name: Devon Cotton Draw 154 wo# 208430S9

Project #: DCV-20-031

Project Manager: Allen, Bob

Sampler: Son Jay

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.5-0=0.5 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2003609	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chlorides
03/26	1005	S	AH-1 Surface	1	Ice Only	-001	X	X									X
	1015	S	AH-1 1ft	1	Test.	-002											
	1030	S	AH-1 2ft	1		-003											
	1040	S	AH-1 3ft	1		-004											
	1110	S	AH-2 Surface	1		-005											
	1120	S	AH-2 1ft	1		-006											
	1130	S	AH-3 Surface	1		-007											
	1145	S	AH-3 1ft	1		-008											
	1200	S	AH-3 2ft	1		-009											
	1210	S	AH-4 Surface	1		-010											
	~~1220~~	~~S~~	~~AH-4 Surface~~	~~1~~		JE 3/27/20 ~~011~~											
03/26	1220	S	AH-4 1ft	1		-011 ~~012~~	X	X									X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
03/26/20	1600	Son Jay			3/26/20	1600
3/26/20	1900			courier	3/27/20	8:20

Remarks: Bill Devon Direct

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.

Chain-of-Custody Record

Client: Safety Environmental Solution

Mailing Address: 703 E Clinton Hobbs NM 88240

Phone #: 575-397-0510

email or Fax#:

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 day Turn
☑ Standard ☐ Rush

Project Name: Devon Cotton Draw 15H
WO# 20043059

Project #: DEV-20-031

Project Manager: Allen, Bob

Sampler: Jon Jay

On Ice: ☐ Yes ☑ No

# of Coolers: 1

Cooler Temp (including CF): 0.5-0=0.5 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chlorides
03/26	1245	S	AH-5 Surface	1	Next Ice	-013 12	X	X									X
	1255	S	AH-5 1ft	1		-014 13											
	1300	S	AH-5 2ft	1		-015 14											
	1315	S	AH-6 Surface	1		-016 15											
03/26	1330	S	AH-6 1ft	1		-017 16	X	X									X
						JR 3/27/20											

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
03/26/20	1600	Jon Jay			3/26/20	1600
3/26/20	1900		Jon A counter		3/27/20	8:25

Remarks: Bill Devon Direct

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

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

April 13, 2020

Bob Allen

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

RE: Devon Cotton Draw 154H OrderNo.: 2004189

Dear Bob Allen:

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

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-1 Bottom 3Ft
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 9:25:00 AM
Lab ID: 2004189-001 **Matrix:** SOIL
Received Date: 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/7/2020 8:04:06 PM	51626
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/9/2020 3:09:21 AM	51579
Surr: BFB	102	70-130		%Rec	1	4/9/2020 3:09:21 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	4/7/2020 6:23:42 PM	51589
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/7/2020 6:23:42 PM	51589
Surr: DNOP	89.6	55.1-146		%Rec	1	4/7/2020 6:23:42 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.023		mg/Kg	1	4/9/2020 3:09:21 AM	51579
Toluene	ND	0.047		mg/Kg	1	4/9/2020 3:09:21 AM	51579
Ethylbenzene	ND	0.047		mg/Kg	1	4/9/2020 3:09:21 AM	51579
Xylenes, Total	ND	0.093		mg/Kg	1	4/9/2020 3:09:21 AM	51579
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	4/9/2020 3:09:21 AM	51579
Surr: 4-Bromofluorobenzene	95.5	70-130		%Rec	1	4/9/2020 3:09:21 AM	51579
Surr: Dibromofluoromethane	105	70-130		%Rec	1	4/9/2020 3:09:21 AM	51579
Surr: Toluene-d8	98.2	70-130		%Rec	1	4/9/2020 3:09:21 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-2 Bottom 3Ft
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 9:35:00 AM
Lab ID: 2004189-002 **Matrix:** SOIL
Received Date: 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	59		mg/Kg	20	4/7/2020 8:16:27 PM	51626
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/9/2020 3:38:09 AM	51579
Surr: BFB	104	70-130		%Rec	1	4/9/2020 3:38:09 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	4/7/2020 6:46:00 PM	51589
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/7/2020 6:46:00 PM	51589
Surr: DNOP	82.5	55.1-146		%Rec	1	4/7/2020 6:46:00 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/9/2020 3:38:09 AM	51579
Toluene	ND	0.049		mg/Kg	1	4/9/2020 3:38:09 AM	51579
Ethylbenzene	ND	0.049		mg/Kg	1	4/9/2020 3:38:09 AM	51579
Xylenes, Total	ND	0.098		mg/Kg	1	4/9/2020 3:38:09 AM	51579
Surr: 1,2-Dichloroethane-d4	88.6	70-130		%Rec	1	4/9/2020 3:38:09 AM	51579
Surr: 4-Bromofluorobenzene	96.7	70-130		%Rec	1	4/9/2020 3:38:09 AM	51579
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/9/2020 3:38:09 AM	51579
Surr: Toluene-d8	95.5	70-130		%Rec	1	4/9/2020 3:38:09 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-3 North Wall
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 9:45:00 AM
Lab ID: 2004189-003 **Matrix:** SOIL
Received Date: 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/7/2020 8:28:48 PM	51626
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/9/2020 4:07:02 AM	51579
Surr: BFB	102	70-130		%Rec	1	4/9/2020 4:07:02 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	4/7/2020 7:30:24 PM	51589
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/7/2020 7:30:24 PM	51589
Surr: DNOP	83.6	55.1-146		%Rec	1	4/7/2020 7:30:24 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/9/2020 4:07:02 AM	51579
Toluene	ND	0.047		mg/Kg	1	4/9/2020 4:07:02 AM	51579
Ethylbenzene	ND	0.047		mg/Kg	1	4/9/2020 4:07:02 AM	51579
Xylenes, Total	ND	0.095		mg/Kg	1	4/9/2020 4:07:02 AM	51579
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%Rec	1	4/9/2020 4:07:02 AM	51579
Surr: 4-Bromofluorobenzene	93.6	70-130		%Rec	1	4/9/2020 4:07:02 AM	51579
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/9/2020 4:07:02 AM	51579
Surr: Toluene-d8	98.7	70-130		%Rec	1	4/9/2020 4:07:02 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-4 West Wall
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 9:55:00 AM
Lab ID: 2004189-004 **Matrix:** SOIL
Received Date: 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/7/2020 8:41:08 PM	51626
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/9/2020 4:35:36 AM	51579
Surr: BFB	103	70-130		%Rec	1	4/9/2020 4:35:36 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	4/7/2020 7:52:36 PM	51589
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/7/2020 7:52:36 PM	51589
Surr: DNOP	112	55.1-146		%Rec	1	4/7/2020 7:52:36 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/9/2020 4:35:36 AM	51579
Toluene	ND	0.048		mg/Kg	1	4/9/2020 4:35:36 AM	51579
Ethylbenzene	ND	0.048		mg/Kg	1	4/9/2020 4:35:36 AM	51579
Xylenes, Total	ND	0.096		mg/Kg	1	4/9/2020 4:35:36 AM	51579
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%Rec	1	4/9/2020 4:35:36 AM	51579
Surr: 4-Bromofluorobenzene	93.1	70-130		%Rec	1	4/9/2020 4:35:36 AM	51579
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/9/2020 4:35:36 AM	51579
Surr: Toluene-d8	97.5	70-130		%Rec	1	4/9/2020 4:35:36 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-5 Bottom 1.5Ft
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 10:05:00 AM
Lab ID: 2004189-005 **Matrix:** SOIL
Received Date: 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	61		mg/Kg	20	4/7/2020 8:53:28 PM	51626
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/9/2020 5:04:07 AM	51579
Surr: BFB	101	70-130		%Rec	1	4/9/2020 5:04:07 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/7/2020 8:14:55 PM	51589
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/7/2020 8:14:55 PM	51589
Surr: DNOP	83.9	55.1-146		%Rec	1	4/7/2020 8:14:55 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.023		mg/Kg	1	4/9/2020 5:04:07 AM	51579
Toluene	ND	0.046		mg/Kg	1	4/9/2020 5:04:07 AM	51579
Ethylbenzene	ND	0.046		mg/Kg	1	4/9/2020 5:04:07 AM	51579
Xylenes, Total	ND	0.092		mg/Kg	1	4/9/2020 5:04:07 AM	51579
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%Rec	1	4/9/2020 5:04:07 AM	51579
Surr: 4-Bromofluorobenzene	95.0	70-130		%Rec	1	4/9/2020 5:04:07 AM	51579
Surr: Dibromofluoromethane	103	70-130		%Rec	1	4/9/2020 5:04:07 AM	51579
Surr: Toluene-d8	95.4	70-130		%Rec	1	4/9/2020 5:04:07 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-6 North Wall
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 10:15:00 AM
Lab ID: 2004189-006 **Matrix:** SOIL
Received Date: 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/7/2020 9:05:50 PM	51626
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/9/2020 5:32:41 AM	51579
Surr: BFB	103	70-130		%Rec	1	4/9/2020 5:32:41 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	4/7/2020 8:37:06 PM	51589
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/7/2020 8:37:06 PM	51589
Surr: DNOP	84.7	55.1-146		%Rec	1	4/7/2020 8:37:06 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/9/2020 5:32:41 AM	51579
Toluene	ND	0.048		mg/Kg	1	4/9/2020 5:32:41 AM	51579
Ethylbenzene	ND	0.048		mg/Kg	1	4/9/2020 5:32:41 AM	51579
Xylenes, Total	ND	0.096		mg/Kg	1	4/9/2020 5:32:41 AM	51579
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%Rec	1	4/9/2020 5:32:41 AM	51579
Surr: 4-Bromofluorobenzene	95.6	70-130		%Rec	1	4/9/2020 5:32:41 AM	51579
Surr: Dibromofluoromethane	100	70-130		%Rec	1	4/9/2020 5:32:41 AM	51579
Surr: Toluene-d8	96.7	70-130		%Rec	1	4/9/2020 5:32:41 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-7 Bottom 1.5Ft
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 10:25:00 AM
Lab ID: 2004189-007 **Matrix:** SOIL
Received Date: 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/7/2020 9:18:11 PM	51626
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/9/2020 6:01:16 AM	51579
Surr: BFB	101	70-130		%Rec	1	4/9/2020 6:01:16 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/7/2020 8:59:19 PM	51589
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/7/2020 8:59:19 PM	51589
Surr: DNOP	84.4	55.1-146		%Rec	1	4/7/2020 8:59:19 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/9/2020 6:01:16 AM	51579
Toluene	ND	0.048		mg/Kg	1	4/9/2020 6:01:16 AM	51579
Ethylbenzene	ND	0.048		mg/Kg	1	4/9/2020 6:01:16 AM	51579
Xylenes, Total	ND	0.097		mg/Kg	1	4/9/2020 6:01:16 AM	51579
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	1	4/9/2020 6:01:16 AM	51579
Surr: 4-Bromofluorobenzene	93.8	70-130		%Rec	1	4/9/2020 6:01:16 AM	51579
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/9/2020 6:01:16 AM	51579
Surr: Toluene-d8	96.8	70-130		%Rec	1	4/9/2020 6:01:16 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-8 West Wall
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 10:45:00 AM
Lab ID: 2004189-008 **Matrix:** SOIL
Received Date: 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/7/2020 9:30:32 PM	51626
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/9/2020 6:29:57 AM	51579
Surr: BFB	105	70-130		%Rec	1	4/9/2020 6:29:57 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	4/7/2020 9:21:27 PM	51589
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/7/2020 9:21:27 PM	51589
Surr: DNOP	85.5	55.1-146		%Rec	1	4/7/2020 9:21:27 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/9/2020 6:29:57 AM	51579
Toluene	ND	0.048		mg/Kg	1	4/9/2020 6:29:57 AM	51579
Ethylbenzene	ND	0.048		mg/Kg	1	4/9/2020 6:29:57 AM	51579
Xylenes, Total	ND	0.096		mg/Kg	1	4/9/2020 6:29:57 AM	51579
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%Rec	1	4/9/2020 6:29:57 AM	51579
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	4/9/2020 6:29:57 AM	51579
Surr: Dibromofluoromethane	103	70-130		%Rec	1	4/9/2020 6:29:57 AM	51579
Surr: Toluene-d8	97.8	70-130		%Rec	1	4/9/2020 6:29:57 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-9 West Wall
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 1:25:00 PM
Lab ID: 2004189-009 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/7/2020 10:07:32 PM	51626
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/9/2020 6:58:27 AM	51579
Surr: BFB	103	70-130		%Rec	1	4/9/2020 6:58:27 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/7/2020 9:43:43 PM	51589
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/7/2020 9:43:43 PM	51589
Surr: DNOP	90.7	55.1-146		%Rec	1	4/7/2020 9:43:43 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/9/2020 6:58:27 AM	51579
Toluene	ND	0.047		mg/Kg	1	4/9/2020 6:58:27 AM	51579
Ethylbenzene	ND	0.047		mg/Kg	1	4/9/2020 6:58:27 AM	51579
Xylenes, Total	ND	0.094		mg/Kg	1	4/9/2020 6:58:27 AM	51579
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%Rec	1	4/9/2020 6:58:27 AM	51579
Surr: 4-Bromofluorobenzene	94.6	70-130		%Rec	1	4/9/2020 6:58:27 AM	51579
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/9/2020 6:58:27 AM	51579
Surr: Toluene-d8	97.3	70-130		%Rec	1	4/9/2020 6:58:27 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-10 Bottom 1.5Ft
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 1:40:00 PM
Lab ID: 2004189-010 **Matrix:** SOIL
Received Date: 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/8/2020 9:16:58 PM	51662
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/9/2020 7:26:52 AM	51579
Surr: BFB	102	70-130		%Rec	1	4/9/2020 7:26:52 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/7/2020 10:05:51 PM	51589
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/7/2020 10:05:51 PM	51589
Surr: DNOP	88.6	55.1-146		%Rec	1	4/7/2020 10:05:51 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/9/2020 7:26:52 AM	51579
Toluene	ND	0.047		mg/Kg	1	4/9/2020 7:26:52 AM	51579
Ethylbenzene	ND	0.047		mg/Kg	1	4/9/2020 7:26:52 AM	51579
Xylenes, Total	ND	0.094		mg/Kg	1	4/9/2020 7:26:52 AM	51579
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%Rec	1	4/9/2020 7:26:52 AM	51579
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	4/9/2020 7:26:52 AM	51579
Surr: Dibromofluoromethane	99.9	70-130		%Rec	1	4/9/2020 7:26:52 AM	51579
Surr: Toluene-d8	96.1	70-130		%Rec	1	4/9/2020 7:26:52 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-11 Bottom 1.5Ft
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 1:55:00 PM
Lab ID: 2004189-011 **Matrix:** SOIL
Received Date: 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	59		mg/Kg	20	4/8/2020 9:29:22 PM	51662
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/9/2020 7:55:23 AM	51579
Surr: BFB	98.1	70-130		%Rec	1	4/9/2020 7:55:23 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	7.8		mg/Kg	1	4/7/2020 10:28:04 PM	51589
Motor Oil Range Organics (MRO)	ND	39		mg/Kg	1	4/7/2020 10:28:04 PM	51589
Surr: DNOP	99.2	55.1-146		%Rec	1	4/7/2020 10:28:04 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/9/2020 7:55:23 AM	51579
Toluene	ND	0.047		mg/Kg	1	4/9/2020 7:55:23 AM	51579
Ethylbenzene	ND	0.047		mg/Kg	1	4/9/2020 7:55:23 AM	51579
Xylenes, Total	ND	0.094		mg/Kg	1	4/9/2020 7:55:23 AM	51579
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%Rec	1	4/9/2020 7:55:23 AM	51579
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	4/9/2020 7:55:23 AM	51579
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/9/2020 7:55:23 AM	51579
Surr: Toluene-d8	94.1	70-130		%Rec	1	4/9/2020 7:55:23 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2004189**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: SP-12 North Wall
Project: Devon Cotton Draw 154H
Collection Date: 4/3/2020 2:10:00 PM
Lab ID: 2004189-012 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/8/2020 9:41:47 PM	51662
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/9/2020 8:24:00 AM	51579
Surr: BFB	103	70-130		%Rec	1	4/9/2020 8:24:00 AM	51579
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/7/2020 10:50:01 PM	51589
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/7/2020 10:50:01 PM	51589
Surr: DNOP	91.0	55.1-146		%Rec	1	4/7/2020 10:50:01 PM	51589
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/9/2020 8:24:00 AM	51579
Toluene	ND	0.047		mg/Kg	1	4/9/2020 8:24:00 AM	51579
Ethylbenzene	ND	0.047		mg/Kg	1	4/9/2020 8:24:00 AM	51579
Xylenes, Total	ND	0.095		mg/Kg	1	4/9/2020 8:24:00 AM	51579
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%Rec	1	4/9/2020 8:24:00 AM	51579
Surr: 4-Bromofluorobenzene	95.4	70-130		%Rec	1	4/9/2020 8:24:00 AM	51579
Surr: Dibromofluoromethane	99.6	70-130		%Rec	1	4/9/2020 8:24:00 AM	51579
Surr: Toluene-d8	95.3	70-130		%Rec	1	4/9/2020 8:24:00 AM	51579

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004189**

13-Apr-20

Client: Safety & Environmental Solutions

Project: Devon Cotton Draw 154H

Sample ID: **MB-51626** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **51626** RunNo: **67908**

Prep Date: **4/7/2020** Analysis Date: **4/7/2020** SeqNo: **2347414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-51626** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **51626** RunNo: **67908**

Prep Date: **4/7/2020** Analysis Date: **4/7/2020** SeqNo: **2347416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	90	110			

Sample ID: **MB-51662** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **51662** RunNo: **67978**

Prep Date: **4/8/2020** Analysis Date: **4/8/2020** SeqNo: **2349318** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-51662** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **51662** RunNo: **67978**

Prep Date: **4/8/2020** Analysis Date: **4/8/2020** SeqNo: **2349333** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	90	110			

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2004189**
13-Apr-20

Client: Safety & Environmental Solutions
Project: Devon Cotton Draw 154H

Sample ID: **LCS-51589** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **51589** RunNo: **67897**
Prep Date: **4/6/2020** Analysis Date: **4/7/2020** SeqNo: **2347620** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	83.0	70	130			
Surr: DNOP	4.2		5.000		83.2	55.1	146			

Sample ID: **MB-51589** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **51589** RunNo: **67897**
Prep Date: **4/6/2020** Analysis Date: **4/7/2020** SeqNo: **2347621** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.8		10.00		88.4	55.1	146			

Sample ID: **LCS-51634** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **51634** RunNo: **67900**
Prep Date: **4/7/2020** Analysis Date: **4/9/2020** SeqNo: **2348958** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.7		5.000		74.0	55.1	146			

Sample ID: **MB-51634** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **51634** RunNo: **67900**
Prep Date: **4/7/2020** Analysis Date: **4/9/2020** SeqNo: **2348959** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.5		10.00		84.9	55.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative 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#: **2004189**
13-Apr-20

Client: Safety & Environmental Solutions
Project: Devon Cotton Draw 154H

Sample ID: **lcs-51579** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **51579** RunNo: **67951**
Prep Date: **4/6/2020** Analysis Date: **4/8/2020** SeqNo: **2348738** 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	92.1	70	130			
Toluene	0.96	0.050	1.000	0	96.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.9	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.0	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.4	70	130			
Surr: Toluene-d8	0.46		0.5000		91.1	70	130			

Sample ID: **mb-51579** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **51579** RunNo: **67951**
Prep Date: **4/6/2020** Analysis Date: **4/8/2020** SeqNo: **2348739** 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	0.49		0.5000		99.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.7	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.47		0.5000		94.3	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 Quanitative 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#: **2004189**

13-Apr-20

Client: Safety & Environmental Solutions

Project: Devon Cotton Draw 154H

Sample ID: **lcs-51579**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **51579**	RunNo: **67951**
Prep Date: **4/6/2020**	Analysis Date: **4/8/2020**	SeqNo: **2348764** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.1	70	130			
Surr: BFB	500		500.0		100	70	130			

Sample ID: **mb-51579**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **51579**	RunNo: **67951**
Prep Date: **4/6/2020**	Analysis Date: **4/8/2020**	SeqNo: **2348765** 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			

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 Quanitative 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

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

Sample Log-In Check List

Client Name: Safety Env Solutions | Work Order Number: 2004189 | RcptNo: 1

Received By: Erin Melendrez 4/4/2020 8:15:00 AM

Completed By: Erin Melendrez 4/4/2020 9:57:56 AM

Reviewed By: ENM 4/4/20

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° 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: JP 04/04/20

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.0	Good				

Chain-of-Custody Record

Client: Safety & Environmental Solutions

Mailing Address: 703 E. Clinton Hobbs NM 88240

Phone #: 575-397-0510

email or Fax#:

QA/QC Package: ☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: ☑ Standard ☐ Rush 5 day Turn

Project Name: Devon Cotton Draw 15 4H
WO# 20843059

Project #: DEV-20-031

Project Manager: Allen, Bob

Sampler: Sergio Jerry

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.0-0(CF)=5.0 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2004189	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride
04/03	0925	S	SP-1 Bottom 3Ft	1	Ice	-001	X	X									X
	0935	S	SP-2 Bottom 3Ft	1	Neat	-002											
	0945	S	SP-3 NorthWall	1		-003											
	0955	S	SP-4 West Wall	1		-004											
	1005	S	SP-5 Bottom 1.5Ft	1		-005											
	1015	S	SP-6 North Wall	1		-006											
	1025	S	SP-7 Bottom 1.5Ft	1		-007											
	1045	S	SP-8 West Wall	1		-008											
	1335	S	SP-9 West Wall	1		-009											
	1340	S	SP-10 Bottom 1.5Ft	1		-010											
	1355	S	SP-11 Bottom 1.5Ft	1		-011											
04/03	1410	S	SP-12 NorthWall	1		-012	X	X									X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
04/03	1600	Sergio Jerry			4/3/20	1630
4/3/20	1910			Courier	4/4/20	0815

Remarks: Bill Direct To Devon

CC BOB SERGIO KATHY JERRY

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.


Local:Apr 6, 2020 at 8:30:45 AM MDT
+32.145255,-103.739437
240° SE
Altitude:1055.7meter
Speed:3.5km/h
CAUTION


Local:Apr 6, 2020 at 8:32:17 AM MDT
+32.166866,-103.762653
62° NE
Altitude:1054.1meter
Speed:4.0km/h


Local:Apr 6, 2020 at 8:30:35 AM MDT
+32.145255,-103.739437
197° S
Altitude:1054.7meter
Speed:5.1km/h


Local:Apr 6, 2020 at 8:31:42 AM MDT
+32.166969,-103.762459
228° SE
Altitude:1054.6meter
Speed:4.6km/h

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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.

Printed Name: _____ Title: _____

Signature: Tom Bynum Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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.

Printed Name: _____ Title: _____

Signature: Tom Bynum _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _____ Title: _____

Signature: Tom Bynum Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____