

**Devon Energy Production Company
Cotton Draw Unit 238H**

**Closure Report
U/L E, Section 12, T25S, R31E
Eddy County, New Mexico
NAB1626736693
2RP-3899**

August 10, 2020



Prepared for:

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

By:

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

Company Contacts

Representative	Company	Telephone	E-mail
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 engaged by Devon Energy to perform a site assessment at the Cotton Draw Unit 238H, concerning a release dated 4/26/16. This site is situated in Eddy County, Section 12, Township 25S, and Range 31E.

According to the C-141, approximately 8 bbls of treated water were released by a damaged water transfer line. No fluids were recovered. Safety & Environmental Solutions was contacted to conduct a site assessment.

SESI personnel performed an assessment of the site in April of 2020 based on generator knowledge of the leak location. It was determined at that time that the legal description of the leak was incorrectly stated on the initial C-141. The generator had used the well legal description instead of the legal description of the leak. SESI personnel mapped the leak and performed delineation.

Surface and Ground Water

Based on the NMOCD Oil and Gas map included in this report, surface water is not present within 3,000 feet of this release. The New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be 350' bgs; however, since no wells less than 25 years old and less than a half mile away are known to be present, SESI will delineate this release to the most stringent criteria established by NMOCD.

Characterization

On April 1, 2020, SESI personnel performed sampling to determine if the release would need remediation. SESI advanced 7 auger holes within the leak area. The samples were properly packaged and preserved and sent to Hall Laboratories for analyzation. The results of the testing are captured in the summary below:

Devon Energy Cotton Draw 238H Soil Sample Results: Hall Environmental Laboratories 4/1/20								
SAMPLE ID	Chloride	DRO	MRO	GRO	Benzene	Toluene	Ethyl benzene	Total Xylenes
AH1 @ SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH1 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
AH2 @ SURFACE	68	ND	ND	ND	ND	ND	ND	ND
AH2 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
AH3 @ SURFACE	290	ND	ND	ND	ND	ND	ND	ND
AH3 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
AH4 @ SURFACE	280	ND	ND	ND	ND	ND	ND	ND
AH4 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
AH5 @ SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH5 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
AH6 @ SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH6 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND
AH7 @ SURFACE	72	ND	ND	ND	ND	ND	ND	ND
AH7 @ 1'	ND	ND	ND	ND	ND	ND	ND	ND

Closure Request

Based on the results of the delineation, SESI, along with Devon, believe this site does not require any further action. Consequently, SESI will not perform remediation, so no volume of material will be removed and no remediation pictures will be provided. Therefore SESI, on behalf of Devon Energy, respectfully requests closure approval.

Supplemental Documentation for Closure

Map of Release with sample locations
 Photos of Clean Area
 NMOCD Oil and Gas Map
 BLM Cave Karst Map
 FEMA Floodplain Map
 Laboratory Analysis 4/1/20
 C-141, pages 3-6

Legend

- Sample points
- Spill Area (blue)



200 ft

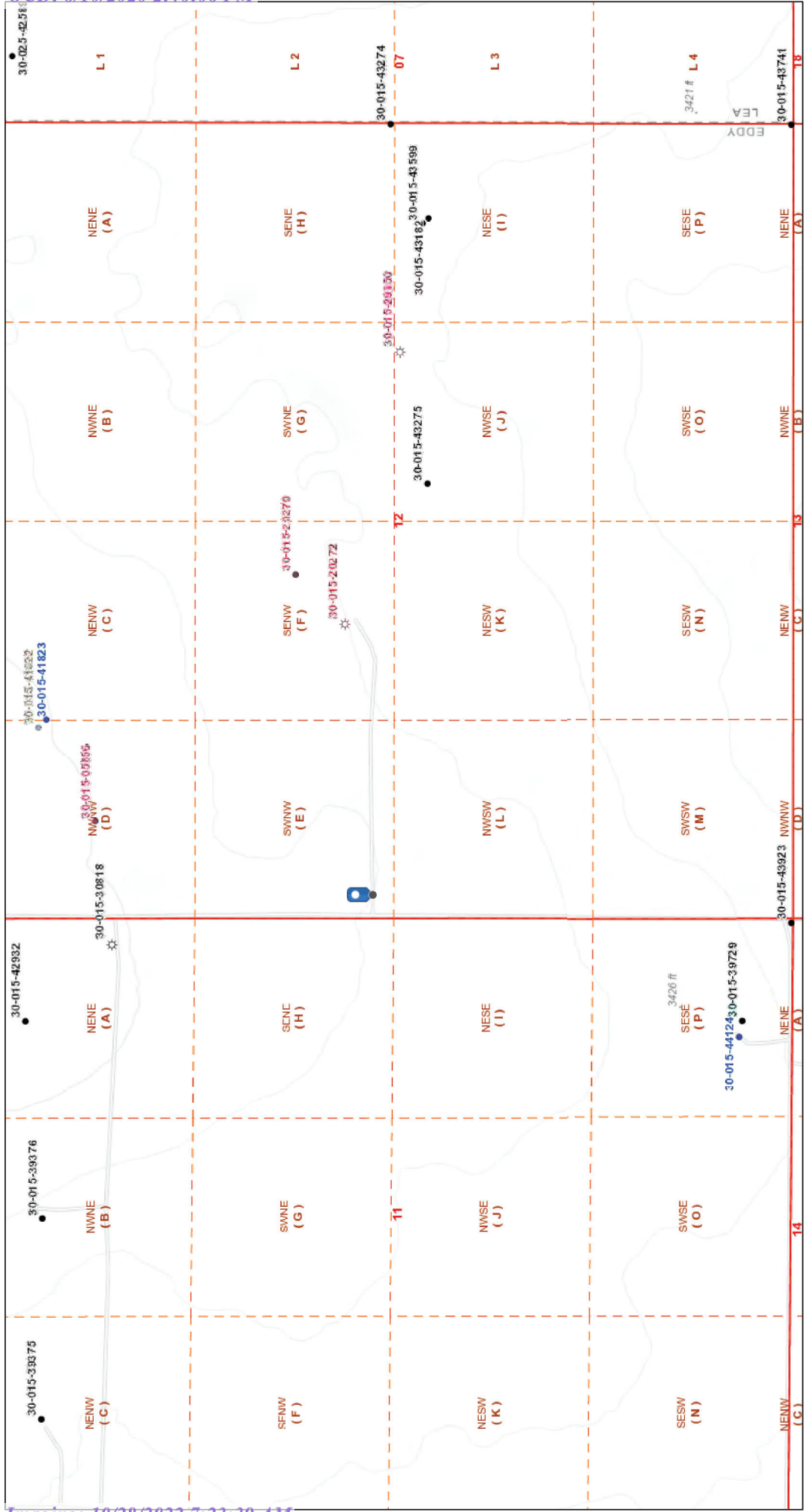


Devon, CDU #238H

DEV-20-037
2RP-3899
NAB1626736693
Leak date: 4/26/16



CDU 238H



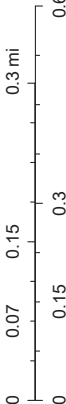
8/10/2020, 1:46:02 PM

- Wells - Large Scale
- undefined
 - Miscellaneous
 - CO2, Active
 - CO2, Cancelled
 - CO2, New
 - CO2, Plugged

- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Gas, Active
- Gas, Cancelled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned

- 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

1:9,028



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,

Legend

- Low potential
- Spill Area (blue)

Devon, CDU 238H

DEV-20-037
2RP-3899
NAB1626736693
Leak date: 4/26/16





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, AP
- 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

- 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



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

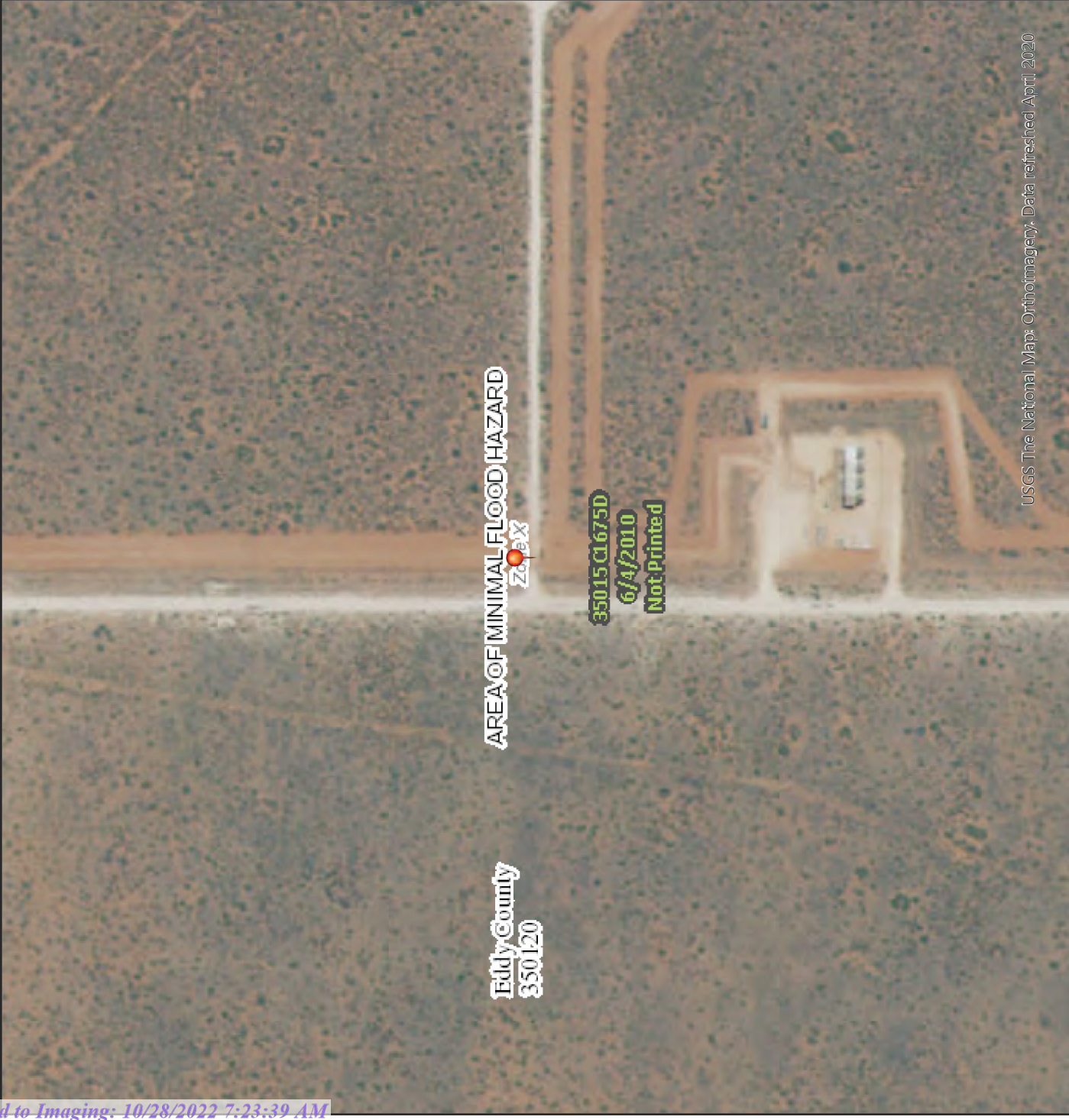
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/10/2020 at 3:47 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by 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.

USGS The National Map: Orthoimagery. Data refreshed April, 2020



103°44'41"W 32°8'27"N





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

April 07, 2020

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

RE: Cotton Draw 238H Devon WO 20847432

OrderNo.: 2004066

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 12 sample(s) on 4/2/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-1 Surface

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 10:45:00 AM

Lab ID: 2004066-001

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	4/5/2020 5:59:23 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/5/2020 6:38:34 AM	51530
Surr: BFB	99.0	70-130		%Rec	1	4/5/2020 6:38:34 AM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/5/2020 9:57:19 AM	51539
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/5/2020 9:57:19 AM	51539
Surr: DNOP	84.2	55.1-146		%Rec	1	4/5/2020 9:57:19 AM	51539
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.023		mg/Kg	1	4/5/2020 6:38:34 AM	51530
Toluene	ND	0.047		mg/Kg	1	4/5/2020 6:38:34 AM	51530
Ethylbenzene	ND	0.047		mg/Kg	1	4/5/2020 6:38:34 AM	51530
Xylenes, Total	ND	0.094		mg/Kg	1	4/5/2020 6:38:34 AM	51530
Surr: 1,2-Dichloroethane-d4	89.7	70-130		%Rec	1	4/5/2020 6:38:34 AM	51530
Surr: 4-Bromofluorobenzene	99.0	70-130		%Rec	1	4/5/2020 6:38:34 AM	51530
Surr: Dibromofluoromethane	92.3	70-130		%Rec	1	4/5/2020 6:38:34 AM	51530
Surr: Toluene-d8	97.5	70-130		%Rec	1	4/5/2020 6:38:34 AM	51530

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

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

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Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-1 1ft

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 10:00:00 AM

Lab ID: 2004066-002

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	4/5/2020 6:36:35 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/5/2020 8:06:18 AM	51530
Surr: BFB	97.9	70-130		%Rec	1	4/5/2020 8:06:18 AM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/5/2020 10:21:06 AM	51539
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/5/2020 10:21:06 AM	51539
Surr: DNOP	84.2	55.1-146		%Rec	1	4/5/2020 10:21:06 AM	51539
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/5/2020 8:06:18 AM	51530
Toluene	ND	0.048		mg/Kg	1	4/5/2020 8:06:18 AM	51530
Ethylbenzene	ND	0.048		mg/Kg	1	4/5/2020 8:06:18 AM	51530
Xylenes, Total	ND	0.095		mg/Kg	1	4/5/2020 8:06:18 AM	51530
Surr: 1,2-Dichloroethane-d4	91.2	70-130		%Rec	1	4/5/2020 8:06:18 AM	51530
Surr: 4-Bromofluorobenzene	95.6	70-130		%Rec	1	4/5/2020 8:06:18 AM	51530
Surr: Dibromofluoromethane	93.6	70-130		%Rec	1	4/5/2020 8:06:18 AM	51530
Surr: Toluene-d8	99.7	70-130		%Rec	1	4/5/2020 8:06:18 AM	51530

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

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

Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-2 Surface

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 10:25:00 AM

Lab ID: 2004066-003

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	68	60		mg/Kg	20	4/5/2020 7:13:49 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/5/2020 1:39:03 PM	51530
Surr: BFB	96.7	70-130		%Rec	1	4/5/2020 1:39:03 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/5/2020 10:44:56 AM	51539
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/5/2020 10:44:56 AM	51539
Surr: DNOP	81.7	55.1-146		%Rec	1	4/5/2020 10:44:56 AM	51539
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	4/5/2020 1:39:03 PM	51530
Toluene	ND	0.049		mg/Kg	1	4/5/2020 1:39:03 PM	51530
Ethylbenzene	ND	0.049		mg/Kg	1	4/5/2020 1:39:03 PM	51530
Xylenes, Total	ND	0.098		mg/Kg	1	4/5/2020 1:39:03 PM	51530
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%Rec	1	4/5/2020 1:39:03 PM	51530
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	4/5/2020 1:39:03 PM	51530
Surr: Dibromofluoromethane	95.3	70-130		%Rec	1	4/5/2020 1:39:03 PM	51530
Surr: Toluene-d8	97.5	70-130		%Rec	1	4/5/2020 1:39:03 PM	51530

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

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

Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-2 1ft

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 10:45:00 AM

Lab ID: 2004066-004

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	4/5/2020 7:26:13 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/5/2020 2:08:16 PM	51530
Surr: BFB	96.9	70-130		%Rec	1	4/5/2020 2:08:16 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/5/2020 11:56:53 AM	51541
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/5/2020 11:56:53 AM	51541
Surr: DNOP	89.7	55.1-146		%Rec	1	4/5/2020 11:56:53 AM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/5/2020 2:08:16 PM	51530
Toluene	ND	0.048		mg/Kg	1	4/5/2020 2:08:16 PM	51530
Ethylbenzene	ND	0.048		mg/Kg	1	4/5/2020 2:08:16 PM	51530
Xylenes, Total	ND	0.096		mg/Kg	1	4/5/2020 2:08:16 PM	51530
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%Rec	1	4/5/2020 2:08:16 PM	51530
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	4/5/2020 2:08:16 PM	51530
Surr: Dibromofluoromethane	92.3	70-130		%Rec	1	4/5/2020 2:08:16 PM	51530
Surr: Toluene-d8	101	70-130		%Rec	1	4/5/2020 2:08:16 PM	51530

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

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

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Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-3 Surface

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 11:15:00 AM

Lab ID: 2004066-005

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	290	60		mg/Kg	20	4/5/2020 8:03:27 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/5/2020 2:37:26 PM	51530
Surr: BFB	98.2	70-130		%Rec	1	4/5/2020 2:37:26 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/5/2020 1:09:27 PM	51541
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/5/2020 1:09:27 PM	51541
Surr: DNOP	92.6	55.1-146		%Rec	1	4/5/2020 1:09:27 PM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/5/2020 2:37:26 PM	51530
Toluene	ND	0.049		mg/Kg	1	4/5/2020 2:37:26 PM	51530
Ethylbenzene	ND	0.049		mg/Kg	1	4/5/2020 2:37:26 PM	51530
Xylenes, Total	ND	0.098		mg/Kg	1	4/5/2020 2:37:26 PM	51530
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%Rec	1	4/5/2020 2:37:26 PM	51530
Surr: 4-Bromofluorobenzene	97.3	70-130		%Rec	1	4/5/2020 2:37:26 PM	51530
Surr: Dibromofluoromethane	93.9	70-130		%Rec	1	4/5/2020 2:37:26 PM	51530
Surr: Toluene-d8	99.6	70-130		%Rec	1	4/5/2020 2:37:26 PM	51530

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

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

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Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-3 1ft

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 11:25:00 AM

Lab ID: 2004066-006

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	4/5/2020 8:15:51 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/5/2020 3:06:36 PM	51530
Surr: BFB	99.5	70-130		%Rec	1	4/5/2020 3:06:36 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/5/2020 1:33:47 PM	51541
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/5/2020 1:33:47 PM	51541
Surr: DNOP	92.9	55.1-146		%Rec	1	4/5/2020 1:33:47 PM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	4/5/2020 3:06:36 PM	51530
Toluene	ND	0.050		mg/Kg	1	4/5/2020 3:06:36 PM	51530
Ethylbenzene	ND	0.050		mg/Kg	1	4/5/2020 3:06:36 PM	51530
Xylenes, Total	ND	0.10		mg/Kg	1	4/5/2020 3:06:36 PM	51530
Surr: 1,2-Dichloroethane-d4	90.4	70-130		%Rec	1	4/5/2020 3:06:36 PM	51530
Surr: 4-Bromofluorobenzene	97.2	70-130		%Rec	1	4/5/2020 3:06:36 PM	51530
Surr: Dibromofluoromethane	93.8	70-130		%Rec	1	4/5/2020 3:06:36 PM	51530
Surr: Toluene-d8	101	70-130		%Rec	1	4/5/2020 3:06:36 PM	51530

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

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

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Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-4 Surface

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 11:40:00 AM

Lab ID: 2004066-007

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	280	60		mg/Kg	20	4/5/2020 8:28:16 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/5/2020 3:36:22 PM	51530
Surr: BFB	97.9	70-130		%Rec	1	4/5/2020 3:36:22 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/5/2020 1:58:11 PM	51541
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/5/2020 1:58:11 PM	51541
Surr: DNOP	92.0	55.1-146		%Rec	1	4/5/2020 1:58:11 PM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.023		mg/Kg	1	4/5/2020 3:36:22 PM	51530
Toluene	ND	0.047		mg/Kg	1	4/5/2020 3:36:22 PM	51530
Ethylbenzene	ND	0.047		mg/Kg	1	4/5/2020 3:36:22 PM	51530
Xylenes, Total	ND	0.093		mg/Kg	1	4/5/2020 3:36:22 PM	51530
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%Rec	1	4/5/2020 3:36:22 PM	51530
Surr: 4-Bromofluorobenzene	96.9	70-130		%Rec	1	4/5/2020 3:36:22 PM	51530
Surr: Dibromofluoromethane	94.4	70-130		%Rec	1	4/5/2020 3:36:22 PM	51530
Surr: Toluene-d8	97.2	70-130		%Rec	1	4/5/2020 3:36:22 PM	51530

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

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

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Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-4 1ft

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 11:55:00 AM

Lab ID: 2004066-008

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	4/5/2020 8:40:41 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/5/2020 4:05:56 PM	51530
Surr: BFB	97.2	70-130		%Rec	1	4/5/2020 4:05:56 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/5/2020 2:22:33 PM	51541
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/5/2020 2:22:33 PM	51541
Surr: DNOP	93.6	55.1-146		%Rec	1	4/5/2020 2:22:33 PM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	4/5/2020 4:05:56 PM	51530
Toluene	ND	0.050		mg/Kg	1	4/5/2020 4:05:56 PM	51530
Ethylbenzene	ND	0.050		mg/Kg	1	4/5/2020 4:05:56 PM	51530
Xylenes, Total	ND	0.10		mg/Kg	1	4/5/2020 4:05:56 PM	51530
Surr: 1,2-Dichloroethane-d4	89.4	70-130		%Rec	1	4/5/2020 4:05:56 PM	51530
Surr: 4-Bromofluorobenzene	95.0	70-130		%Rec	1	4/5/2020 4:05:56 PM	51530
Surr: Dibromofluoromethane	92.1	70-130		%Rec	1	4/5/2020 4:05:56 PM	51530
Surr: Toluene-d8	98.5	70-130		%Rec	1	4/5/2020 4:05:56 PM	51530

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

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

Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-5 Surface

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 12:05:00 PM

Lab ID: 2004066-009

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	4/5/2020 8:53:05 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/5/2020 4:35:09 PM	51530
Surr: BFB	96.0	70-130		%Rec	1	4/5/2020 4:35:09 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/5/2020 2:46:53 PM	51541
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/5/2020 2:46:53 PM	51541
Surr: DNOP	93.3	55.1-146		%Rec	1	4/5/2020 2:46:53 PM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/5/2020 4:35:09 PM	51530
Toluene	ND	0.048		mg/Kg	1	4/5/2020 4:35:09 PM	51530
Ethylbenzene	ND	0.048		mg/Kg	1	4/5/2020 4:35:09 PM	51530
Xylenes, Total	ND	0.097		mg/Kg	1	4/5/2020 4:35:09 PM	51530
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%Rec	1	4/5/2020 4:35:09 PM	51530
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	4/5/2020 4:35:09 PM	51530
Surr: Dibromofluoromethane	97.3	70-130		%Rec	1	4/5/2020 4:35:09 PM	51530
Surr: Toluene-d8	97.7	70-130		%Rec	1	4/5/2020 4:35:09 PM	51530

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

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

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Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-5 1ft

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 12:15:00 PM

Lab ID: 2004066-010

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	4/5/2020 9:05:29 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/5/2020 5:04:14 PM	51530
Surr: BFB	98.3	70-130		%Rec	1	4/5/2020 5:04:14 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/5/2020 3:11:17 PM	51541
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/5/2020 3:11:17 PM	51541
Surr: DNOP	91.7	55.1-146		%Rec	1	4/5/2020 3:11:17 PM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/5/2020 5:04:14 PM	51530
Toluene	ND	0.048		mg/Kg	1	4/5/2020 5:04:14 PM	51530
Ethylbenzene	ND	0.048		mg/Kg	1	4/5/2020 5:04:14 PM	51530
Xylenes, Total	ND	0.097		mg/Kg	1	4/5/2020 5:04:14 PM	51530
Surr: 1,2-Dichloroethane-d4	90.4	70-130		%Rec	1	4/5/2020 5:04:14 PM	51530
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	1	4/5/2020 5:04:14 PM	51530
Surr: Dibromofluoromethane	96.3	70-130		%Rec	1	4/5/2020 5:04:14 PM	51530
Surr: Toluene-d8	105	70-130		%Rec	1	4/5/2020 5:04:14 PM	51530

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

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

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Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-6 Surface

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 12:25:00 PM

Lab ID: 2004066-011

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	4/5/2020 9:17:54 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/5/2020 5:33:20 PM	51530
Surr: BFB	99.9	70-130		%Rec	1	4/5/2020 5:33:20 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/5/2020 3:35:44 PM	51541
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/5/2020 3:35:44 PM	51541
Surr: DNOP	97.1	55.1-146		%Rec	1	4/5/2020 3:35:44 PM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/5/2020 5:33:20 PM	51530
Toluene	ND	0.048		mg/Kg	1	4/5/2020 5:33:20 PM	51530
Ethylbenzene	ND	0.048		mg/Kg	1	4/5/2020 5:33:20 PM	51530
Xylenes, Total	ND	0.097		mg/Kg	1	4/5/2020 5:33:20 PM	51530
Surr: 1,2-Dichloroethane-d4	90.4	70-130		%Rec	1	4/5/2020 5:33:20 PM	51530
Surr: 4-Bromofluorobenzene	97.1	70-130		%Rec	1	4/5/2020 5:33:20 PM	51530
Surr: Dibromofluoromethane	94.9	70-130		%Rec	1	4/5/2020 5:33:20 PM	51530
Surr: Toluene-d8	98.5	70-130		%Rec	1	4/5/2020 5:33:20 PM	51530

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

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

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Analytical Report

Lab Order 2004066

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-6 1ft

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 12:40:00 PM

Lab ID: 2004066-012

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	59		mg/Kg	20	4/5/2020 9:30:19 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/5/2020 6:02:31 PM	51530
Surr: BFB	98.6	70-130		%Rec	1	4/5/2020 6:02:31 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/5/2020 4:00:09 PM	51541
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/5/2020 4:00:09 PM	51541
Surr: DNOP	95.8	55.1-146		%Rec	1	4/5/2020 4:00:09 PM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/5/2020 6:02:31 PM	51530
Toluene	ND	0.048		mg/Kg	1	4/5/2020 6:02:31 PM	51530
Ethylbenzene	ND	0.048		mg/Kg	1	4/5/2020 6:02:31 PM	51530
Xylenes, Total	ND	0.097		mg/Kg	1	4/5/2020 6:02:31 PM	51530
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%Rec	1	4/5/2020 6:02:31 PM	51530
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	4/5/2020 6:02:31 PM	51530
Surr: Dibromofluoromethane	94.8	70-130		%Rec	1	4/5/2020 6:02:31 PM	51530
Surr: Toluene-d8	99.2	70-130		%Rec	1	4/5/2020 6:02:31 PM	51530

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

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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004066
07-Apr-20

Client: Safety & Environmental Solutions

Project: Cotton Draw 238H Devon WO 20847432

Sample ID: MB-51572		SampType: mblk		TestCode: EPA Method 300.0: Anions						
Client ID: PBS		Batch ID: 51572		RunNo: 67876						
Prep Date: 4/5/2020		Analysis Date: 4/5/2020		SeqNo: 2344946			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-51572		SampType: lcs		TestCode: EPA Method 300.0: Anions						
Client ID: LCSS		Batch ID: 51572		RunNo: 67876						
Prep Date: 4/5/2020		Analysis Date: 4/5/2020		SeqNo: 2344947			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.7	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

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

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004066

07-Apr-20

Client: Safety & Environmental Solutions
Project: Cotton Draw 238H Devon WO 20847432

Sample ID: MB-51539	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 51539	RunNo: 67838								
Prep Date: 4/3/2020	Analysis Date: 4/4/2020	SeqNo: 2344027 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		87.6	55.1	146			

Sample ID: LCS-51539	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 51539	RunNo: 67838								
Prep Date: 4/3/2020	Analysis Date: 4/4/2020	SeqNo: 2344028 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.6	70	130			
Surr: DNOP	4.4		5.000		88.2	55.1	146			

Sample ID: 2004066-004AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: AH-2 1ft	Batch ID: 51541	RunNo: 67859								
Prep Date: 4/3/2020	Analysis Date: 4/5/2020	SeqNo: 2344066 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.4	46.95	0	90.1	47.4	136			
Surr: DNOP	4.2		4.695		88.5	55.1	146			

Sample ID: 2004066-004AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: AH-2 1ft	Batch ID: 51541	RunNo: 67859								
Prep Date: 4/3/2020	Analysis Date: 4/5/2020	SeqNo: 2344067 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.3	46.55	0	88.8	47.4	136	2.28	43.4	
Surr: DNOP	4.1		4.655		88.7	55.1	146	0	0	

Sample ID: MB-51541	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 51541	RunNo: 67859								
Prep Date: 4/3/2020	Analysis Date: 4/5/2020	SeqNo: 2344068 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		89.6	55.1	146			

Qualifiers:

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

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

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

WO#: 2004066

07-Apr-20

Client: Safety & Environmental Solutions
Project: Cotton Draw 238H Devon WO 20847432

Sample ID: LCS-51541	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 51541			RunNo: 67859						
Prep Date: 4/3/2020	Analysis Date: 4/5/2020			SeqNo: 2344069	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	90.3	70	130			
Surr: DNOP	4.3		5.000		85.8	55.1	146			

Sample ID: MB-51554	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 51554			RunNo: 67859						
Prep Date: 4/4/2020	Analysis Date: 4/6/2020			SeqNo: 2345130	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		100	55.1	146			

Sample ID: LCS-51554	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 51554			RunNo: 67859						
Prep Date: 4/4/2020	Analysis Date: 4/6/2020			SeqNo: 2345131	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.3	55.1	146			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004066

07-Apr-20

Client: Safety & Environmental Solutions
Project: Cotton Draw 238H Devon WO 20847432

Sample ID: mb-51530	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343895			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	0.43		0.5000		85.8	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.4	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.1	70	130			
Surr: Toluene-d8	0.49		0.5000		97.3	70	130			

Sample ID: lcs-51530	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343896			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	86.5	80	120			
Toluene	1.1	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.1	70	130			
Surr: Toluene-d8	0.50		0.5000		99.2	70	130			

Sample ID: 2004066-001ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: AH-1 Surface	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343899			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	0.9833	0	92.1	80	120			
Toluene	1.0	0.049	0.9833	0	106	80	120			
Ethylbenzene	1.0	0.049	0.9833	0	106	80	120			
Xylenes, Total	3.1	0.098	2.950	0	105	80	120			
Surr: 4-Bromofluorobenzene	0.46		0.4916		93.8	70	130			
Surr: Toluene-d8	0.49		0.4916		99.2	70	130			

Sample ID: 2004066-001amsd	SampType: MSD4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: AH-1 Surface	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343900			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	0.9823	0	94.8	80	120	2.79	20	
Toluene	1.0	0.049	0.9823	0	104	80	120	1.86	20	

Qualifiers:

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

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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004066

07-Apr-20

Client: Safety & Environmental Solutions
Project: Cotton Draw 238H Devon WO 20847432

Sample ID: 2004066-001amsd	SampType: MSD4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: AH-1 Surface	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343900	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	1.0	0.049	0.9823	0	104	80	120	2.16	20	
Xylenes, Total	3.0	0.098	2.947	0	102	80	120	3.20	20	
Surr: 4-Bromofluorobenzene	0.47		0.4912		95.2	70	130	0	0	
Surr: Toluene-d8	0.49		0.4912		100	70	130	0	0	

Sample ID: mb-51487	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 51487	RunNo: 67881								
Prep Date: 4/1/2020	Analysis Date: 4/5/2020	SeqNo: 2345162	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.5	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.0	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.2	70	130			
Surr: Toluene-d8	0.49		0.5000		98.8	70	130			

Sample ID: Ics-51487	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 51487	RunNo: 67881								
Prep Date: 4/1/2020	Analysis Date: 4/5/2020	SeqNo: 2345164	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.48		0.5000		97.0	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004066

07-Apr-20

Client: Safety & Environmental Solutions
Project: Cotton Draw 238H Devon WO 20847432

Sample ID: mb-51530	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343932 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		97.5	70	130			

Sample ID: lcs-51530	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343933 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.5	70	130			
Surr: BFB	500		500.0		101	70	130			

Sample ID: 2004066-002ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: AH-1 1ft	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343937 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	24.02	0	86.3	70	130			
Surr: BFB	470		480.3		98.8	70	130			

Sample ID: 2004066-002amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: AH-1 1ft	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343938 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.37	0	87.0	70	130	2.24	20	
Surr: BFB	480		487.3		99.3	70	130	0	0	

Sample ID: mb-51487	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 51487	RunNo: 67881								
Prep Date: 4/1/2020	Analysis Date: 4/5/2020	SeqNo: 2345213 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	490		500.0		98.6	70	130			

Sample ID: lcs-51487	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 51487	RunNo: 67881								
Prep Date: 4/1/2020	Analysis Date: 4/5/2020	SeqNo: 2345214 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	500		500.0		99.3	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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

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

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

Sample Log-In Check List

Client Name: Safety Env Solutions

Work Order Number: 2004066

RcptNo: 1

Received By: Isaiah Ortiz 4/2/2020 8:30:00 AM

Completed By: John Caldwell 4/2/2020 9:41:22 AM

Reviewed By: *JO* 4/2/20*I-0x**John Caldwell*

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: *DAD 4/2/20*

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good				
2	1.2	Good				



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

April 07, 2020

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

RE: Cotton Draw 238H Devon WO 20847432

OrderNo.: 2004069

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/2/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2004069

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-7 Surface

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 1:00:00 PM

Lab ID: 2004069-001

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	72	60		mg/Kg	20	4/5/2020 10:57:11 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/5/2020 8:29:12 PM	51530
Surr: BFB	96.8	70-130		%Rec	1	4/5/2020 8:29:12 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/5/2020 6:27:07 PM	51541
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/5/2020 6:27:07 PM	51541
Surr: DNOP	94.0	55.1-146		%Rec	1	4/5/2020 6:27:07 PM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	4/5/2020 8:29:12 PM	51530
Toluene	ND	0.049		mg/Kg	1	4/5/2020 8:29:12 PM	51530
Ethylbenzene	ND	0.049		mg/Kg	1	4/5/2020 8:29:12 PM	51530
Xylenes, Total	ND	0.099		mg/Kg	1	4/5/2020 8:29:12 PM	51530
Surr: 1,2-Dichloroethane-d4	93.8	70-130		%Rec	1	4/5/2020 8:29:12 PM	51530
Surr: 4-Bromofluorobenzene	91.9	70-130		%Rec	1	4/5/2020 8:29:12 PM	51530
Surr: Dibromofluoromethane	97.8	70-130		%Rec	1	4/5/2020 8:29:12 PM	51530
Surr: Toluene-d8	97.2	70-130		%Rec	1	4/5/2020 8:29:12 PM	51530

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

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

Analytical Report

Lab Order 2004069

Date Reported: 4/7/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-7 1ft

Project: Cotton Draw 238H Devon WO 20847432

Collection Date: 4/1/2020 1:10:00 PM

Lab ID: 2004069-002

Matrix: SOIL

Received Date: 4/2/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	4/5/2020 11:09:36 PM	51572
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/5/2020 8:58:44 PM	51530
Surr: BFB	94.5	70-130		%Rec	1	4/5/2020 8:58:44 PM	51530
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/5/2020 6:51:36 PM	51541
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/5/2020 6:51:36 PM	51541
Surr: DNOP	94.2	55.1-146		%Rec	1	4/5/2020 6:51:36 PM	51541
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	4/5/2020 8:58:44 PM	51530
Toluene	ND	0.050		mg/Kg	1	4/5/2020 8:58:44 PM	51530
Ethylbenzene	ND	0.050		mg/Kg	1	4/5/2020 8:58:44 PM	51530
Xylenes, Total	ND	0.099		mg/Kg	1	4/5/2020 8:58:44 PM	51530
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%Rec	1	4/5/2020 8:58:44 PM	51530
Surr: 4-Bromofluorobenzene	92.4	70-130		%Rec	1	4/5/2020 8:58:44 PM	51530
Surr: Dibromofluoromethane	92.4	70-130		%Rec	1	4/5/2020 8:58:44 PM	51530
Surr: Toluene-d8	94.1	70-130		%Rec	1	4/5/2020 8:58:44 PM	51530

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

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

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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 2004069
07-Apr-20

Client: Safety & Environmental Solutions
Project: Cotton Draw 238H Devon WO 20847432

Sample ID: MB-51572	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 51572	RunNo: 67876
Prep Date: 4/5/2020	Analysis Date: 4/5/2020	SeqNo: 2344946 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-51572	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 51572	RunNo: 67876
Prep Date: 4/5/2020	Analysis Date: 4/5/2020	SeqNo: 2344947 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 92.7 90 110

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

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

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

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

WO#: 2004069

07-Apr-20

Client: Safety & Environmental Solutions
Project: Cotton Draw 238H Devon WO 20847432

Sample ID: MB-51541	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 51541	RunNo: 67859								
Prep Date: 4/3/2020	Analysis Date: 4/5/2020	SeqNo: 2344068			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		89.6	55.1	146			

Sample ID: LCS-51541	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 51541	RunNo: 67859								
Prep Date: 4/3/2020	Analysis Date: 4/5/2020	SeqNo: 2344069			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	90.3	70	130			
Surr: DNOP	4.3		5.000		85.8	55.1	146			

Sample ID: MB-51554	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 51554	RunNo: 67859								
Prep Date: 4/4/2020	Analysis Date: 4/6/2020	SeqNo: 2345130			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		100	55.1	146			

Sample ID: LCS-51554	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 51554	RunNo: 67859								
Prep Date: 4/4/2020	Analysis Date: 4/6/2020	SeqNo: 2345131			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.3	55.1	146			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004069

07-Apr-20

Client: Safety & Environmental Solutions
Project: Cotton Draw 238H Devon WO 20847432

Sample ID: mb-51530	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343895			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	0.43		0.5000		85.8	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.4	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.1	70	130			
Surr: Toluene-d8	0.49		0.5000		97.3	70	130			

Sample ID: ics-51530	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343896			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	86.5	80	120			
Toluene	1.1	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.1	70	130			
Surr: Toluene-d8	0.50		0.5000		99.2	70	130			

Sample ID: mb-51487	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 51487	RunNo: 67881								
Prep Date: 4/1/2020	Analysis Date: 4/5/2020	SeqNo: 2345162			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.5	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.0	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.2	70	130			
Surr: Toluene-d8	0.49		0.5000		98.8	70	130			

Sample ID: ics-51487	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 51487	RunNo: 67881								
Prep Date: 4/1/2020	Analysis Date: 4/5/2020	SeqNo: 2345164			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.48		0.5000		97.0	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Qualifiers:

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

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

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

WO#: 2004069

07-Apr-20

Client: Safety & Environmental Solutions
Project: Cotton Draw 238H Devon WO 20847432

Sample ID: mb-51530	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343932		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		97.5	70	130			

Sample ID: lcs-51530	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 51530	RunNo: 67853								
Prep Date: 4/2/2020	Analysis Date: 4/5/2020	SeqNo: 2343933		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.5	70	130			
Surr: BFB	500		500.0		101	70	130			

Sample ID: mb-51487	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 51487	RunNo: 67881								
Prep Date: 4/1/2020	Analysis Date: 4/5/2020	SeqNo: 2345213		Units: %Rec						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	490		500.0		98.6	70	130			

Sample ID: lcs-51487	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 51487	RunNo: 67881								
Prep Date: 4/1/2020	Analysis Date: 4/5/2020	SeqNo: 2345214		Units: %Rec						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	500		500.0		99.3	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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

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



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

Sample Log-In Check List

Client Name: Safety Env Solutions

Work Order Number: 2004069

RcptNo: 1

Received By: Isaiah Ortiz 4/2/2020 8:30:00 AM

Completed By: John Caldwell 4/2/2020 9:57:42 AM

Reviewed By: *IO* 4/2/20

IO

John Caldwell

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: *DAD 4/2/20*

Special Handling (if applicable)

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

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good				
2	1.2	Good				

Incident ID	NAB1626736693
District RP	2RP-3899
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?	UNDETERMINED _____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1626736693
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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: TOM BYNUM Title: EHS CONSULTANT
Signature: Tom Bynum Date: 8/10/2020
email: TOM.BYNUM@DVN.COM Telephone: 575-748-3371

OCD Only

Received by: _____ Date: _____

Incident ID	NAB1626736693
District RP	2RP-3899
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: TOM BYNUM Title: EHS CONSULTANT
Signature: Tom Bynum Date: 8/10/2020
email: TOM.BYNUM@DVN.COM Telephone: 575-748-3371

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

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Incident ID	NAB1626736693
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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: TOM BYNUM Title: EHS CONSULTANT
Signature: Tom Bynum Date: 8/10/2020
email: TOM.BYNUM@DVN.COM Telephone: 575-748-3371

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Brittany Hall Date: 10/28/2022
Printed Name: Brittany Hall Title: Environmental Specialist

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 9583

CONDITIONS

Operator: Safety & Environmental Solutions, Inc. PO Box 1613 Hobbs, NM 88240	OGRID: 329088
	Action Number: 9583
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	10/28/2022