

REVIEWED

By Olivia Yu at 7:50 am, Oct 22, 2018

**Devon Energy Production Co LP
Falcon 32 State 1 Battery**

Closure

**Unit Letter F, Section 32, T23S, R32E
Lea County, New Mexico**

**30-025-33001
1RP-4947**

September 28, 2018



Prepared for:

**Devon Energy Production Co., LP
6488 Seven Rivers Hwy
Artesia, New Mexico 88211**

By:

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

TABLE OF CONTENTS

I. COMPANY CONTACTS.....	1
II. BACKGROUND.....	1
III. SURFACE AND GROUND WATER.....	1
IV. CHARACTERIZATION.....	1
V. REQUEST FOR CLOSURE.....	2
VI. FIGURES & APPENDICES.....	2
Figure 1 – Vicinity Map.....	3
Figure 2 – Site Plan.....	4
Appendix A – C-141.....	5
Appendix B – Groundwater.....	6
Appendix C – Analytical Results.....	7
Appendix D – Photo Documentation.....	8

I. Company Contacts

Representative	Company	Telephone	E-mail
Mike Shoemaker	Devon Energy Prod.	575-746-5566	Mike.Shoemaker@dvn.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Devon Energy to perform a site assessment on the Falcon 32 State 1 Battery, concerning a 31 bbls. release of oil and produced water. This site is situated in Lea County, Section 32, Township 23S, and Range 32E.

According to the C-141: Approximately thirty one (31) BBLS of produced water and six (6) BBLS of oil was released into dirt containment. Pressure was lost on the inlet separator and liquid flowed into the vent line causing the open top vent tank to overflow into the dirt SPCC containment. The wells going to the battery were shut in to prevent any further release. A vacuum truck was dispatched and recovered approximately thirty (30) BBLS produced water and five (5) BBLS oil. This is a CTB located on the Falcon 32 State 1 Battery which is a P&A well. Safety & Environmental Solutions was contacted for remediation.

III. Surface and Ground Water

The New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be 584' bgs.

IV. Characterization

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

Depth to Ground Water:			
(Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	20 points	
	50 feet to 99 feet	10 points	
	>100 feet	0 points	X
Wellhead Protection Area:			
(Less than 200 feet from a private domestic water source; or less than 1000 feet from all other water sources)	Yes	20 points	
	No	0 points	X
Distance to Surface Water:			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	20 points	
	200 feet to 1000 feet	10 points	
	>1000 feet	0 points	X
RANKING SCORE (TOTAL POINTS)			0

V. Work Performed

On March 29, 2018, SESI personnel was onsite at the Devon Falcon 32 State 1 Battery for the site assessment and delineation. It was determined that the spill was contained inside the berm, and no mechanical equipment can be used. The site area was assessed to determine where the sample points were to be installed. Four auger holes were installed and field tested for Chlorides. The release area and sample points were mapped using the Juno 3B and site photos of the release area were taken. All soil samples were properly packaged, preserved and transported to Hall Environmental Laboratories of Albuquerque, NM by chain of custody, and analyzed for TPH(total petroleum hydrocarbons)(Method 8015M), BTEX, and Chlorides (Method 300). The results are recapped in the following table:

Soil Sample Results: Hall Environmental Laboratories 4/10/2018								
SAMPLE ID	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	TPH GRO	TPH DRO	Chlorides
Sample #1	ND	ND	ND	ND	ND	ND	470	89
Sample #2	ND	ND	ND	ND	ND	ND	17	140
Sample #3	ND	ND	ND	ND	ND	13	400	120
Sample #4	ND	ND	ND	ND	ND	ND	64	76

Between July 30, 2018 and August 3, 2018, SESI personnel was onsite with SDR personnel at the Devon Falcon 32 State 1 to begin remediation of the release area. After the crew excavates approximately fifteen foot area, a soil sample was obtained from the bottom of the excavation and field tested for TPH and Chlorides. Throughout the excavation, soil samples were obtained on the North, South and West walls and field tested for TPH and Chlorides. Once excavation was complete, the SDR backhoe began hauling in back fill material, dumping it over the fence into the excavation while the crew spread it out. Spoils were hauled to Lea Land for disposal. The excavation area was mapped and site photos were taken. All soil samples were properly packaged, preserved and transported to Hall Environmental Laboratories of Albuquerque, NM by chain of custody, and analyzed for TPH(total petroleum hydrocarbons)(Method 8015M), BTEX, and Chlorides (Method 300). The results are recapped in the following table:

Soil Sample Results: Hall Environmental Laboratories 8/13/2018							
SAMPLE ID	Benzene	Toluene	Ethyl benzene	Total Xylenes	TPH GRO	TPH DRO	Chlorides
SP-1 Bottom 1ft	ND	ND	ND	ND	ND	230	410
SP-2 Bottom 1ft	ND	ND	ND	ND	ND	220	410
SP-3 Bottom 1ft	ND	ND	ND	ND	ND	ND	190
SP-4 Bottom 1ft	ND	ND	ND	ND	ND	15	190
SP-5 North Wall	ND	ND	ND	ND	ND	ND	ND
SP-6 West Wall	ND	ND	ND	ND	ND	ND	60
SP-7 West Wall	ND	ND	ND	ND	ND	ND	ND
SP-8 South Wall	ND	ND	ND	ND	ND	ND	65
SP-9 East Wall	ND	ND	ND	ND	ND	ND	ND
SP-10 North Wall	ND	ND	ND	ND	ND	ND	64

VI. Request for Closure

The results of the confirmation sampling indicate that all soils impacted above 5000 ppm TPH and 600 ppm Chlorides were removed and transported to an approved NMOCD facility for disposal. The area was backfilled with similar material and returned to grade. Devon Energy Production respectfully submits this closure report for your consideration, and requests that no further action be required.

VII. Figures & Appendices

Figure 1 – Vicinity Map
Figure 2 – Site Plan
Appendix A – C-141
Appendix B – Groundwater
Appendix C – Analytical Results
Appendix D – Photo Documentation

Figure 1
Vicinity Map

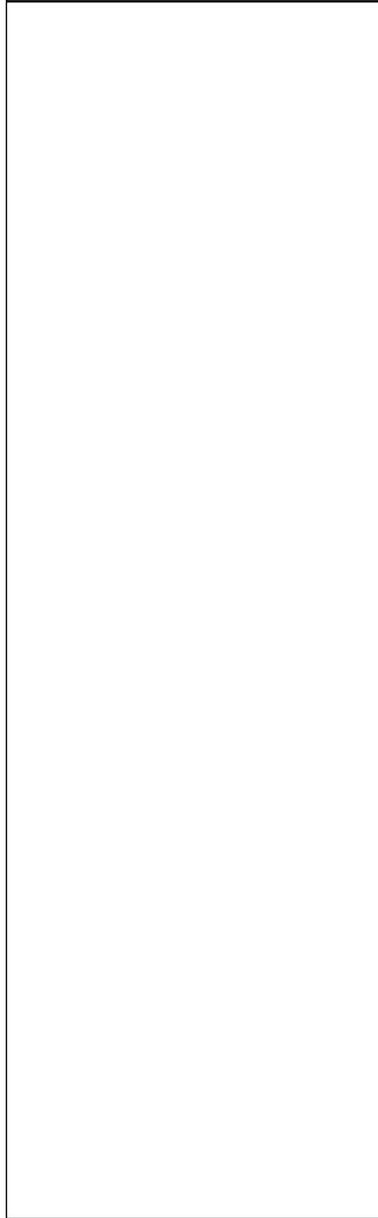
Falcon 32 State 1 Battery

31bbls produced water/6bbls oil_1.15.18



This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map.

WGS_1984_Web_Mercator_Auxiliary_Sphere
Prepared by: Sheila Fisher
Map is current as of: 22-Jan-2018



S32, T23S, R32E

31bbls pw/6bbls oil

23S - 32E - 32
NW SW

Figure 2
Site Plan

Falcon 32 State 1 Battery

Sample Points Map 3-29-18

Falcon 32 State 1 Battery

Legend

- Falcon 32 State 1 Battery
- Feature 1
- Sample
- Sample Point 1
- Sample Point 4

Sample Point 1

Sample Point 4

Sample point 3

Sample Point 2

Google Earth

40 ft



Appendix A

C-141

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

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised April 3, 2017

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

Release Notification and Corrective Action

OPERATOR Initial Report Final Report

Name of Company Devon Energy Production Company	Contact Wes Ryan, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No. 575-390-5436
Facility Name Falcon 32 State 1 Battery	Facility Type Oil

Surface Owner State	Mineral Owner State	API No. 30-025-33001
---------------------	---------------------	----------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	32	23S	32E					Lea

Latitude_32.26221_ Longitude_-103.70023_ NAD83

NATURE OF RELEASE

Type of Release Produced Water/Oil	Volume of Release 31bbls produced water/6bbls oil	Volume Recovered 30bbls produced water/5bbls oil
Source of Release Open top vent tank	Date and Hour of Occurrence January 15, 2018 @ 1:05 PM MST	Date and Hour of Discovery January 15, 2018 @ 1:05 PM MST
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Olivia Yu, OCD Tammy Honea, SLO	
By Whom? Mike Shoemaker, EHS Professional	Date and Hour January 16, 2018 @ 6:44 AM MST	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
Lost pressure on the inlet separator and liquid flowed into vent line causing the open top vent tank to overflow into the dirt SPCC containment. The wells going to the battery were shut in to prevent any further release.

Describe Area Affected and Cleanup Action Taken.*
Approximately 31bbls produced water and 6bbls oil were released into dirt containment. A vacuum truck was dispatched and recovered approximately 30bbls produced water and 5bbls oil. This is a CTB located on the Falcon 32 State 1 pad which is a P&A well. A remediation contractor will be contacted to assist with delineation and remediation efforts.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Sheila Fisher</i>	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Sheila Fisher	Approved by Environmental Specialist:	
Title: Field Admin Support	Approval Date:	Expiration Date:
E-mail Address: Sheila.Fisher@dvn.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 1/22/18	Phone: 575.748.1829	

* Attach Additional Sheets If Necessary

Appendix B Groundwater



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
C_02216		CUB	LE	2	2	4	21	23S	32E	625035	3573261*	585	400	185
C_02349		CUB	ED		2	3	03	23S	32E	625678	3578004*	525		
C_03529 POD1		C	LE	2	4	3	29	23S	32E	622651	3571212	550		
C_03749 POD1		CUB	LE	3	4	4	07	23S	32E	616974	3575662	865	639	226
C_03851 POD1		CUB	LE	3	3	4	20	23S	32E	622880	3572660	1392	713	679

Average Depth to Water: **584 feet**

Minimum Depth: **400 feet**

Maximum Depth: **713 feet**

Record Count: 5

PLSS Search:

Township: 23S **Range:** 32E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/14/18 10:45 AM

WATER COLUMN/ AVERAGE DEPTH
TO WATER

Appendix C – Analytical Results



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

April 10, 2018

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

RE: Devon Falcon 32001

OrderNo.: 1804001

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/31/2018 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 #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1804001

Date Reported: 4/10/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: Sample #1

Project: Devon Falcon 32001

Collection Date: 3/29/2018

Lab ID: 1804001-001

Matrix: SOIL

Received Date: 3/31/2018 12:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	89	30		mg/Kg	20	4/9/2018 1:40:09 PM	37490
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/4/2018 2:04:54 PM	37372
Surr: BFB	121	70-130		%Rec	1	4/4/2018 2:04:54 PM	37372
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	470	98		mg/Kg	10	4/4/2018 4:07:28 PM	37380
Motor Oil Range Organics (MRO)	560	490		mg/Kg	10	4/4/2018 4:07:28 PM	37380
Surr: DNOP	0	70-130	S	%Rec	10	4/4/2018 4:07:28 PM	37380
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Methyl tert-butyl ether (MTBE)	ND	0.049		mg/Kg	1	4/4/2018 2:04:54 PM	37372
Benzene	ND	0.024		mg/Kg	1	4/4/2018 2:04:54 PM	37372
Toluene	ND	0.049		mg/Kg	1	4/4/2018 2:04:54 PM	37372
Ethylbenzene	ND	0.049		mg/Kg	1	4/4/2018 2:04:54 PM	37372
Xylenes, Total	ND	0.097		mg/Kg	1	4/4/2018 2:04:54 PM	37372
Surr: 4-Bromofluorobenzene	123	70-130		%Rec	1	4/4/2018 2:04:54 PM	37372
Surr: Toluene-d8	84.2	70-130		%Rec	1	4/4/2018 2:04:54 PM	37372

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 Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1804001

Date Reported: 4/10/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: Sample #2

Project: Devon Falcon 32001

Collection Date: 3/29/2018

Lab ID: 1804001-002

Matrix: SOIL

Received Date: 3/31/2018 12:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	4/9/2018 1:52:33 PM	37490
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/4/2018 3:14:17 PM	37372
Surr: BFB	113	70-130		%Rec	1	4/4/2018 3:14:17 PM	37372
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	17	7.6		mg/Kg	1	4/3/2018 10:50:38 PM	37380
Motor Oil Range Organics (MRO)	ND	38		mg/Kg	1	4/3/2018 10:50:38 PM	37380
Surr: DNOP	94.0	70-130		%Rec	1	4/3/2018 10:50:38 PM	37380
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	4/4/2018 3:14:17 PM	37372
Benzene	ND	0.025		mg/Kg	1	4/4/2018 3:14:17 PM	37372
Toluene	ND	0.050		mg/Kg	1	4/4/2018 3:14:17 PM	37372
Ethylbenzene	ND	0.050		mg/Kg	1	4/4/2018 3:14:17 PM	37372
Xylenes, Total	ND	0.10		mg/Kg	1	4/4/2018 3:14:17 PM	37372
Surr: 4-Bromofluorobenzene	114	70-130		%Rec	1	4/4/2018 3:14:17 PM	37372
Surr: Toluene-d8	77.7	70-130		%Rec	1	4/4/2018 3:14:17 PM	37372

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 Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1804001

Date Reported: 4/10/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: Sample #3

Project: Devon Falcon 32001

Collection Date: 3/29/2018

Lab ID: 1804001-003

Matrix: SOIL

Received Date: 3/31/2018 12:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	120	30		mg/Kg	20	4/9/2018 2:29:47 PM	37490
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	13	4.9		mg/Kg	1	4/4/2018 4:23:40 PM	37372
Surr: BFB	117	70-130		%Rec	1	4/4/2018 4:23:40 PM	37372
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	400	81		mg/Kg	10	4/4/2018 4:29:33 PM	37380
Motor Oil Range Organics (MRO)	430	410		mg/Kg	10	4/4/2018 4:29:33 PM	37380
Surr: DNOP	0	70-130	S	%Rec	10	4/4/2018 4:29:33 PM	37380
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Methyl tert-butyl ether (MTBE)	ND	0.049		mg/Kg	1	4/4/2018 4:23:40 PM	37372
Benzene	ND	0.024		mg/Kg	1	4/4/2018 4:23:40 PM	37372
Toluene	ND	0.049		mg/Kg	1	4/4/2018 4:23:40 PM	37372
Ethylbenzene	ND	0.049		mg/Kg	1	4/4/2018 4:23:40 PM	37372
Xylenes, Total	ND	0.097		mg/Kg	1	4/4/2018 4:23:40 PM	37372
Surr: 4-Bromofluorobenzene	118	70-130		%Rec	1	4/4/2018 4:23:40 PM	37372
Surr: Toluene-d8	82.4	70-130		%Rec	1	4/4/2018 4:23:40 PM	37372

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1804001

Date Reported: 4/10/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: Sample #4

Project: Devon Falcon 32001

Collection Date: 3/29/2018

Lab ID: 1804001-004

Matrix: SOIL

Received Date: 3/31/2018 12:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	76	30		mg/Kg	20	4/9/2018 2:42:12 PM	37490
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/4/2018 5:10:00 PM	37372
Surr: BFB	112	70-130		%Rec	1	4/4/2018 5:10:00 PM	37372
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	64	10		mg/Kg	1	4/3/2018 11:34:48 PM	37380
Motor Oil Range Organics (MRO)	64	50		mg/Kg	1	4/3/2018 11:34:48 PM	37380
Surr: DNOP	99.6	70-130		%Rec	1	4/3/2018 11:34:48 PM	37380
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Methyl tert-butyl ether (MTBE)	ND	0.046		mg/Kg	1	4/4/2018 5:10:00 PM	37372
Benzene	ND	0.023		mg/Kg	1	4/4/2018 5:10:00 PM	37372
Toluene	ND	0.046		mg/Kg	1	4/4/2018 5:10:00 PM	37372
Ethylbenzene	ND	0.046		mg/Kg	1	4/4/2018 5:10:00 PM	37372
Xylenes, Total	ND	0.091		mg/Kg	1	4/4/2018 5:10:00 PM	37372
Surr: 4-Bromofluorobenzene	113	70-130		%Rec	1	4/4/2018 5:10:00 PM	37372
Surr: Toluene-d8	83.0	70-130		%Rec	1	4/4/2018 5:10:00 PM	37372

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804001

10-Apr-18

Client: Safety & Environmental Solutions

Project: Devon Falcon 32001

Sample ID	MB-37490	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	37490	RunNo:	50408					
Prep Date:	4/9/2018	Analysis Date:	4/9/2018	SeqNo:	1634764	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-37490	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	37490	RunNo:	50408					
Prep Date:	4/9/2018	Analysis Date:	4/9/2018	SeqNo:	1634765	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

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 Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804001

10-Apr-18

Client: Safety & Environmental Solutions

Project: Devon Falcon 32001

Sample ID LCS-37380	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 37380		RunNo: 50268							
Prep Date: 4/2/2018	Analysis Date: 4/3/2018		SeqNo: 1628463		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.1	70	130			
Surr: DNOP	4.2		5.000		84.7	70	130			

Sample ID MB-37380	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 37380		RunNo: 50268							
Prep Date: 4/2/2018	Analysis Date: 4/3/2018		SeqNo: 1628464		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		98.6	70	130			

Sample ID LCS-37405	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 37405		RunNo: 50301							
Prep Date: 4/3/2018	Analysis Date: 4/4/2018		SeqNo: 1630258		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.1	70	130			

Sample ID MB-37405	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 37405		RunNo: 50301							
Prep Date: 4/3/2018	Analysis Date: 4/4/2018		SeqNo: 1630259		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.2		10.00		92.5	70	130			

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 Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804001

10-Apr-18

Client: Safety & Environmental Solutions

Project: Devon Falcon 32001

Sample ID	Ics-37372		SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID:	BatchQC		Batch ID: 37372	RunNo: 50274						
Prep Date:	4/2/2018		Analysis Date: 4/3/2018	SeqNo: 1629196	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.4	80	120			
Toluene	0.91	0.050	1.000	0	90.6	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.4	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.8	80	120			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.42		0.5000		83.1	70	130			

Sample ID	Ics-37399		SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID:	BatchQC		Batch ID: 37399	RunNo: 50305						
Prep Date:	4/3/2018		Analysis Date: 4/4/2018	SeqNo: 1630018	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.9	70	130			
Surr: Toluene-d8	0.43		0.5000		86.0	70	130			

Sample ID	mb-37399		SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID:	PBS		Batch ID: 37399	RunNo: 50305						
Prep Date:	4/3/2018		Analysis Date: 4/4/2018	SeqNo: 1630050	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.57		0.5000		114	70	130			
Surr: Toluene-d8	0.44		0.5000		87.5	70	130			

Sample ID	1804001-002ams		SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID:	Sample #2		Batch ID: 37372	RunNo: 50305						
Prep Date:	4/2/2018		Analysis Date: 4/4/2018	SeqNo: 1630620	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.89	0.048	0.9653	0	92.3	80	120			
Benzene	0.88	0.024	0.9653	0	90.8	80	120			
Toluene	0.94	0.048	0.9653	0.006082	96.6	80	120			
Ethylbenzene	1.0	0.048	0.9653	0	104	80	120			
Xylenes, Total	3.1	0.097	2.896	0.02727	105	80	120			
Surr: 4-Bromofluorobenzene	0.50		0.4826		103	70	130			
Surr: Toluene-d8	0.41		0.4826		85.3	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 Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804001

10-Apr-18

Client: Safety & Environmental Solutions

Project: Devon Falcon 32001

Sample ID	1804001-002amsd	SampType:	MSD4	TestCode:	EPA Method 8260B: Volatiles Short List						
Client ID:	Sample #2	Batch ID:	37372	RunNo:	50305						
Prep Date:	4/2/2018	Analysis Date:	4/4/2018	SeqNo:	1630621	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Methyl tert-butyl ether (MTBE)	0.92	0.049	0.9823	0	93.6	80	120	3.18	0		
Benzene	0.88	0.025	0.9823	0	89.5	80	120	0.326	0		
Toluene	0.91	0.049	0.9823	0.006082	92.2	80	120	2.85	0		
Ethylbenzene	1.0	0.049	0.9823	0	105	80	120	2.22	0		
Xylenes, Total	3.1	0.098	2.947	0.02727	105	80	120	1.75	0		
Surr: 4-Bromofluorobenzene	0.49		0.4912		100	70	130	0	0		
Surr: Toluene-d8	0.41		0.4912		83.3	70	130	0	0		

Sample ID	mb-37372	SampType:	MLBK	TestCode:	EPA Method 8260B: Volatiles Short List						
Client ID:	PBS	Batch ID:	37372	RunNo:	50305						
Prep Date:	4/2/2018	Analysis Date:	4/4/2018	SeqNo:	1630651	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Methyl tert-butyl ether (MTBE)	ND	0.050									
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.57		0.5000		113	70	130				
Surr: Toluene-d8	0.42		0.5000		83.5	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 Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804001

10-Apr-18

Client: Safety & Environmental Solutions

Project: Devon Falcon 32001

Sample ID	ics-37372		SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID:	LCSS		Batch ID: 37372	RunNo: 50274						
Prep Date:	4/2/2018		Analysis Date: 4/3/2018	SeqNo: 1629197	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	70	130			
Surr: BFB	500		500.0		100	70	130			

Sample ID	ics-37399		SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID:	LCSS		Batch ID: 37399	RunNo: 50305						
Prep Date:	4/3/2018		Analysis Date: 4/4/2018	SeqNo: 1630013	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	510		500.0		103	70	130			

Sample ID	mb-37399		SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID:	PBS		Batch ID: 37399	RunNo: 50305						
Prep Date:	4/3/2018		Analysis Date: 4/4/2018	SeqNo: 1630047	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	570		500.0		114	70	130			

Sample ID	1804001-001ams		SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID:	Sample #1		Batch ID: 37372	RunNo: 50305						
Prep Date:	4/2/2018		Analysis Date: 4/4/2018	SeqNo: 1630540	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	4.8	24.04	2.996	115	64.7	142			
Surr: BFB	520		480.8		109	70	130			

Sample ID	1804001-001amsd		SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID:	Sample #1		Batch ID: 37372	RunNo: 50305						
Prep Date:	4/2/2018		Analysis Date: 4/4/2018	SeqNo: 1630541	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.39	2.996	124	64.7	142	7.98	20	
Surr: BFB	550		487.8		112	70	130	0	0	

Sample ID	mb-37372		SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID:	PBS		Batch ID: 37372	RunNo: 50305						
Prep Date:	4/2/2018		Analysis Date: 4/4/2018	SeqNo: 1630579	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	560		500.0		112	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 Detection Limit
- W Sample container temperature is out of limit as specified



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: 1804001

RcptNo: 1

Received By: Dennis Suazo

3/31/2018 12:45:00 PM

Dennis Suazo

Completed By: Isaiah Ortiz

4/2/2018 7:27:23 AM

Isaiah Ortiz

Reviewed By: *Steele 04/02/18*

LB: ENM

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes No NA
4. Were all samples received at a temperature of >0° 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. VOA vials have zero headspace? Yes No No VOA Vials
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:

ENM 4/2/18

Special Handling (if applicable)

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

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.6	Good	Yes			

Chain-of-Custody Record

Client: ~~SESE~~ **SESE**

Mailing Address: **703 E Clinton**
Hobbs, NM

Phone #: **575-397-0570**

email or Fax#: ~~SESE~~ **ALI**

QA/QC Package:
 Standard Level 4 (Full Validation)
 Accreditation
 NELAP Other _____
 EDD (Type) _____

Turn-Around Time:
 Standard Rush

Project Name:
Devon Falcon 32001

Project #:
DEV-18002

Project Manager:
Bob Allen

Sampler: **Bob Allen**

On Ice: Yes No
 Sample Temperature: **5.6-20°C = 3.6**

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/29/18		Soil	Sample #1		Ice	180400
		"	" #2			-001
		"	" #3			-002
		"	" #4			-003
						-004

Date: **3/29/18** Time: **2:50**

Date: **3/29/18** Time: **1700**

Relinquished by: **Bob Allen**

Received by: **[Signature]** Date: **3/29/18** Time: **0700**

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request	
<input checked="" type="checkbox"/> BTEX + MTBE + TMB's (3021)	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> BTEX + MTBE + TPH (Gas only)	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> TPH 8015B (GRO / DRO / MRO)	<input checked="" type="checkbox"/>
<input type="checkbox"/> TPH (Method 418.1)	
<input type="checkbox"/> EDB (Method 504.1)	
<input type="checkbox"/> PAH's (8310 or 8270 SIMS)	
<input type="checkbox"/> RCRA 8 Metals	
<input type="checkbox"/> Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
<input type="checkbox"/> 8081 Pesticides / 8082 PCB's	
<input type="checkbox"/> 8260B (VOA)	
<input type="checkbox"/> 8270 (Semi-VOA)	
<input type="checkbox"/> Air Bubbles (Y or N)	

Remarks:
COMMON SDS 3/31/18

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



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

August 13, 2018

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

RE: Devon Falcon 32 Soil Battery

OrderNo.: 1808182

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 10 sample(s) on 8/3/2018 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 white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1808182

Date Reported: 8/13/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-1 Bottom 1 Ft

Project: Devon Falcon 32 Soil Battery

Collection Date: 7/30/2018 11:00:00 AM

Lab ID: 1808182-001

Matrix: SOIL

Received Date: 8/3/2018 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	410	30		mg/Kg	20	8/7/2018 7:19:15 PM	39649
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/6/2018 3:44:26 PM	39589
Surr: BFB	115	70-130		%Rec	1	8/6/2018 3:44:26 PM	39589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	230	10		mg/Kg	1	8/7/2018 5:46:43 PM	39604
Motor Oil Range Organics (MRO)	190	50		mg/Kg	1	8/7/2018 5:46:43 PM	39604
Surr: DNOP	98.1	50.6-138		%Rec	1	8/7/2018 5:46:43 PM	39604
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.023		mg/Kg	1	8/6/2018 3:44:26 PM	39589
Toluene	ND	0.046		mg/Kg	1	8/6/2018 3:44:26 PM	39589
Ethylbenzene	ND	0.046		mg/Kg	1	8/6/2018 3:44:26 PM	39589
Xylenes, Total	ND	0.092		mg/Kg	1	8/6/2018 3:44:26 PM	39589
Surr: 4-Bromofluorobenzene	128	70-130		%Rec	1	8/6/2018 3:44:26 PM	39589
Surr: Toluene-d8	96.8	70-130		%Rec	1	8/6/2018 3:44:26 PM	39589

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1808182

Date Reported: 8/13/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-2 Bottom 1 Ft

Project: Devon Falcon 32 Soil Battery

Collection Date: 7/30/2018 12:30:00 PM

Lab ID: 1808182-002

Matrix: SOIL

Received Date: 8/3/2018 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	410	30		mg/Kg	20	8/7/2018 8:21:20 PM	39649
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/6/2018 4:07:43 PM	39589
Surr: BFB	111	70-130		%Rec	1	8/6/2018 4:07:43 PM	39589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	220	9.8		mg/Kg	1	8/7/2018 7:15:33 PM	39604
Motor Oil Range Organics (MRO)	170	49		mg/Kg	1	8/7/2018 7:15:33 PM	39604
Surr: DNOP	101	50.6-138		%Rec	1	8/7/2018 7:15:33 PM	39604
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.023		mg/Kg	1	8/6/2018 4:07:43 PM	39589
Toluene	ND	0.046		mg/Kg	1	8/6/2018 4:07:43 PM	39589
Ethylbenzene	ND	0.046		mg/Kg	1	8/6/2018 4:07:43 PM	39589
Xylenes, Total	ND	0.093		mg/Kg	1	8/6/2018 4:07:43 PM	39589
Surr: 4-Bromofluorobenzene	126	70-130		%Rec	1	8/6/2018 4:07:43 PM	39589
Surr: Toluene-d8	97.8	70-130		%Rec	1	8/6/2018 4:07:43 PM	39589

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1808182

Date Reported: 8/13/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-3 Bottom 1 Ft

Project: Devon Falcon 32 Soil Battery

Collection Date: 7/31/2018 1:20:00 PM

Lab ID: 1808182-003

Matrix: SOIL

Received Date: 8/3/2018 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	190	30		mg/Kg	20	8/7/2018 8:33:44 PM	39649
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/6/2018 4:31:01 PM	39589
Surr: BFB	111	70-130		%Rec	1	8/6/2018 4:31:01 PM	39589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/7/2018 8:44:12 PM	39604
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/7/2018 8:44:12 PM	39604
Surr: DNOP	99.6	50.6-138		%Rec	1	8/7/2018 8:44:12 PM	39604
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.023		mg/Kg	1	8/6/2018 4:31:01 PM	39589
Toluene	ND	0.047		mg/Kg	1	8/6/2018 4:31:01 PM	39589
Ethylbenzene	ND	0.047		mg/Kg	1	8/6/2018 4:31:01 PM	39589
Xylenes, Total	ND	0.093		mg/Kg	1	8/6/2018 4:31:01 PM	39589
Surr: 4-Bromofluorobenzene	125	70-130		%Rec	1	8/6/2018 4:31:01 PM	39589
Surr: Toluene-d8	97.4	70-130		%Rec	1	8/6/2018 4:31:01 PM	39589

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1808182

Date Reported: 8/13/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-4 Bottom 1 Ft

Project: Devon Falcon 32 Soil Battery

Collection Date: 7/31/2018 1:50:00 PM

Lab ID: 1808182-004

Matrix: SOIL

Received Date: 8/3/2018 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	190	30		mg/Kg	20	8/7/2018 8:46:09 PM	39649
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/6/2018 4:54:28 PM	39589
Surr: BFB	114	70-130		%Rec	1	8/6/2018 4:54:28 PM	39589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	15	9.8		mg/Kg	1	8/7/2018 9:50:42 PM	39604
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/7/2018 9:50:42 PM	39604
Surr: DNOP	91.3	50.6-138		%Rec	1	8/7/2018 9:50:42 PM	39604
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.024		mg/Kg	1	8/6/2018 4:54:28 PM	39589
Toluene	ND	0.047		mg/Kg	1	8/6/2018 4:54:28 PM	39589
Ethylbenzene	ND	0.047		mg/Kg	1	8/6/2018 4:54:28 PM	39589
Xylenes, Total	ND	0.094		mg/Kg	1	8/6/2018 4:54:28 PM	39589
Surr: 4-Bromofluorobenzene	128	70-130		%Rec	1	8/6/2018 4:54:28 PM	39589
Surr: Toluene-d8	96.0	70-130		%Rec	1	8/6/2018 4:54:28 PM	39589

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1808182

Date Reported: 8/13/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-5 North Wall

Project: Devon Falcon 32 Soil Battery

Collection Date: 7/31/2018 9:30:00 AM

Lab ID: 1808182-005

Matrix: SOIL

Received Date: 8/3/2018 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	8/7/2018 8:58:33 PM	39649
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/6/2018 5:17:48 PM	39589
Surr: BFB	109	70-130		%Rec	1	8/6/2018 5:17:48 PM	39589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/7/2018 10:57:19 PM	39604
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/7/2018 10:57:19 PM	39604
Surr: DNOP	114	50.6-138		%Rec	1	8/7/2018 10:57:19 PM	39604
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.024		mg/Kg	1	8/6/2018 5:17:48 PM	39589
Toluene	ND	0.048		mg/Kg	1	8/6/2018 5:17:48 PM	39589
Ethylbenzene	ND	0.048		mg/Kg	1	8/6/2018 5:17:48 PM	39589
Xylenes, Total	ND	0.095		mg/Kg	1	8/6/2018 5:17:48 PM	39589
Surr: 4-Bromofluorobenzene	123	70-130		%Rec	1	8/6/2018 5:17:48 PM	39589
Surr: Toluene-d8	97.9	70-130		%Rec	1	8/6/2018 5:17:48 PM	39589

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1808182

Date Reported: 8/13/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-6 West Wall

Project: Devon Falcon 32 Soil Battery

Collection Date: 7/31/2018 9:55:00 AM

Lab ID: 1808182-006

Matrix: SOIL

Received Date: 8/3/2018 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	60	30		mg/Kg	20	8/7/2018 9:10:58 PM	39649
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/6/2018 5:41:06 PM	39589
Surr: BFB	109	70-130		%Rec	1	8/6/2018 5:41:06 PM	39589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/8/2018 12:03:37 AM	39604
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/8/2018 12:03:37 AM	39604
Surr: DNOP	94.0	50.6-138		%Rec	1	8/8/2018 12:03:37 AM	39604
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.023		mg/Kg	1	8/6/2018 5:41:06 PM	39589
Toluene	ND	0.046		mg/Kg	1	8/6/2018 5:41:06 PM	39589
Ethylbenzene	ND	0.046		mg/Kg	1	8/6/2018 5:41:06 PM	39589
Xylenes, Total	ND	0.093		mg/Kg	1	8/6/2018 5:41:06 PM	39589
Surr: 4-Bromofluorobenzene	122	70-130		%Rec	1	8/6/2018 5:41:06 PM	39589
Surr: Toluene-d8	93.4	70-130		%Rec	1	8/6/2018 5:41:06 PM	39589

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1808182

Date Reported: 8/13/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-7 West Wall

Project: Devon Falcon 32 Soil Battery

Collection Date: 7/31/2018 10:10:00 AM

Lab ID: 1808182-007

Matrix: SOIL

Received Date: 8/3/2018 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	8/7/2018 9:23:22 PM	39649
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/6/2018 6:04:23 PM	39589
Surr: BFB	112	70-130		%Rec	1	8/6/2018 6:04:23 PM	39589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/8/2018 1:10:16 AM	39604
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/8/2018 1:10:16 AM	39604
Surr: DNOP	111	50.6-138		%Rec	1	8/8/2018 1:10:16 AM	39604
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.024		mg/Kg	1	8/6/2018 6:04:23 PM	39589
Toluene	ND	0.048		mg/Kg	1	8/6/2018 6:04:23 PM	39589
Ethylbenzene	ND	0.048		mg/Kg	1	8/6/2018 6:04:23 PM	39589
Xylenes, Total	ND	0.096		mg/Kg	1	8/6/2018 6:04:23 PM	39589
Surr: 4-Bromofluorobenzene	125	70-130		%Rec	1	8/6/2018 6:04:23 PM	39589
Surr: Toluene-d8	99.8	70-130		%Rec	1	8/6/2018 6:04:23 PM	39589

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1808182

Date Reported: 8/13/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-8 South Wall

Project: Devon Falcon 32 Soil Battery

Collection Date: 7/31/2018 11:25:00 AM

Lab ID: 1808182-008

Matrix: SOIL

Received Date: 8/3/2018 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	65	30		mg/Kg	20	8/7/2018 9:35:46 PM	39649
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/6/2018 9:11:17 PM	39589
Surr: BFB	117	70-130		%Rec	1	8/6/2018 9:11:17 PM	39589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/8/2018 2:16:52 AM	39604
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/8/2018 2:16:52 AM	39604
Surr: DNOP	96.7	50.6-138		%Rec	1	8/8/2018 2:16:52 AM	39604
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.023		mg/Kg	1	8/6/2018 9:11:17 PM	39589
Toluene	ND	0.046		mg/Kg	1	8/6/2018 9:11:17 PM	39589
Ethylbenzene	ND	0.046		mg/Kg	1	8/6/2018 9:11:17 PM	39589
Xylenes, Total	ND	0.092		mg/Kg	1	8/6/2018 9:11:17 PM	39589
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	1	8/6/2018 9:11:17 PM	39589
Surr: Toluene-d8	96.2	70-130		%Rec	1	8/6/2018 9:11:17 PM	39589

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1808182

Date Reported: 8/13/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-9 East Wall

Project: Devon Falcon 32 Soil Battery

Collection Date: 7/31/2018 12:20:00 PM

Lab ID: 1808182-009

Matrix: SOIL

Received Date: 8/3/2018 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	8/7/2018 9:48:10 PM	39649
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/6/2018 9:34:32 PM	39589
Surr: BFB	112	70-130		%Rec	1	8/6/2018 9:34:32 PM	39589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/8/2018 3:23:42 AM	39604
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/8/2018 3:23:42 AM	39604
Surr: DNOP	132	50.6-138		%Rec	1	8/8/2018 3:23:42 AM	39604
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.024		mg/Kg	1	8/6/2018 9:34:32 PM	39589
Toluene	ND	0.048		mg/Kg	1	8/6/2018 9:34:32 PM	39589
Ethylbenzene	ND	0.048		mg/Kg	1	8/6/2018 9:34:32 PM	39589
Xylenes, Total	ND	0.097		mg/Kg	1	8/6/2018 9:34:32 PM	39589
Surr: 4-Bromofluorobenzene	126	70-130		%Rec	1	8/6/2018 9:34:32 PM	39589
Surr: Toluene-d8	100	70-130		%Rec	1	8/6/2018 9:34:32 PM	39589

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1808182

Date Reported: 8/13/2018

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-10 North Wall

Project: Devon Falcon 32 Soil Battery

Collection Date: 7/31/2018 12:45:00 PM

Lab ID: 1808182-010

Matrix: SOIL

Received Date: 8/3/2018 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	64	30		mg/Kg	20	8/7/2018 10:25:23 PM	39649
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/6/2018 9:57:47 PM	39589
Surr: BFB	113	70-130		%Rec	1	8/6/2018 9:57:47 PM	39589
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/8/2018 4:29:56 AM	39604
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/8/2018 4:29:56 AM	39604
Surr: DNOP	92.7	50.6-138		%Rec	1	8/8/2018 4:29:56 AM	39604
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.024		mg/Kg	1	8/6/2018 9:57:47 PM	39589
Toluene	ND	0.048		mg/Kg	1	8/6/2018 9:57:47 PM	39589
Ethylbenzene	ND	0.048		mg/Kg	1	8/6/2018 9:57:47 PM	39589
Xylenes, Total	ND	0.097		mg/Kg	1	8/6/2018 9:57:47 PM	39589
Surr: 4-Bromofluorobenzene	127	70-130		%Rec	1	8/6/2018 9:57:47 PM	39589
Surr: Toluene-d8	95.2	70-130		%Rec	1	8/6/2018 9:57:47 PM	39589

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1808182

13-Aug-18

Client: Safety & Environmental Solutions

Project: Devon Falcon 32 Soil Battery

Sample ID MB-39649	SampType: mbk		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 39649		RunNo: 53285							
Prep Date: 8/7/2018	Analysis Date: 8/7/2018		SeqNo: 1754280		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID LCS-39649	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 39649		RunNo: 53285							
Prep Date: 8/7/2018	Analysis Date: 8/7/2018		SeqNo: 1754281		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.4	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 Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1808182

13-Aug-18

Client: Safety & Environmental Solutions

Project: Devon Falcon 32 Soil Battery

Sample ID MB-39604	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 39604		RunNo: 53261							
Prep Date: 8/6/2018	Analysis Date: 8/7/2018		SeqNo: 1753037		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	8.7		10.00		87.2	50.6	138			

Sample ID LCS-39604	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 39604		RunNo: 53261							
Prep Date: 8/6/2018	Analysis Date: 8/7/2018		SeqNo: 1753038		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.6	70	130			
Surr: DNOP	4.2		5.000		84.0	50.6	138			

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 Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1808182

13-Aug-18

Client: Safety & Environmental Solutions

Project: Devon Falcon 32 Soil Battery

Sample ID	ics-39589		SampType:	LCS4		TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	BatchQC		Batch ID:	39589		RunNo:	53243				
Prep Date:	8/3/2018		Analysis Date:	8/6/2018		SeqNo:	1752198		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.93	0.025	1.000	0	92.8	80	120				
Toluene	0.95	0.050	1.000	0	95.5	80	120				
Ethylbenzene	1.0	0.050	1.000	0	101	80	120				
Xylenes, Total	3.0	0.10	3.000	0	100	80	120				
Surr: 4-Bromofluorobenzene	0.56		0.5000		111	70	130				
Surr: Toluene-d8	0.45		0.5000		89.4	70	130				

Sample ID	mb-39589		SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	PBS		Batch ID:	39589		RunNo:	53243				
Prep Date:	8/3/2018		Analysis Date:	8/6/2018		SeqNo:	1752199		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.63		0.5000		125	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 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 Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1808182

13-Aug-18

Client: Safety & Environmental Solutions

Project: Devon Falcon 32 Soil Battery

Sample ID	ics-39589	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	39589	RunNo:	53243					
Prep Date:	8/3/2018	Analysis Date:	8/6/2018	SeqNo:	1752062	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	70	130			
Surr: BFB	530		500.0		106	70	130			

Sample ID	mb-39589	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	39589	RunNo:	53243					
Prep Date:	8/3/2018	Analysis Date:	8/6/2018	SeqNo:	1752063	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	560		500.0		112	70	130			

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 Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: **Safety Env Solutions** Work Order Number: **1808182** RcptNo: **1**

Received By: **Isaiah Ortiz** 8/3/2018 8:35:00 AM *IO*

Completed By: **Erin Melendrez** 8/3/2018 9:28:26 AM *EM*

Reviewed By: *08/03/18*
LB: SAB 08/03/18

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes No NA
 4. Were all samples received at a temperature of >0° 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. VOA vials have zero headspace? Yes No No VOA Vials
 10. Were any sample containers received broken? Yes No
 11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 12. Are matrices correctly identified on Chain of Custody? Yes No
 13. Is it clear what analyses were requested? Yes No
 14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: *SAB 08/03/18*

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	2.3	Good	Yes			

Chain-of-Custody Record

Client: Surety & Environmental Solutions
 Mailing Address: 703 E Clinton
Albuquerque NM 88240
 Phone #: 575-397-0510

email or Fax#: * see below
 QA/QC Package:
 Standard Level 4 (Full Validation)
 NELAP Other _____
 EDD (Type) _____

Date	Time	Matrix	Sample Request ID
7/30	1100	S	SP-1 Bottom (F)
7/30	1230	S	SP-2 Bottom (F)
7/31	1320	S	SP-3 Bottom (F)
7/31	1350	S	SP-4 Bottom (F)
7/31	0930	S	SP-5 Northwell
7/31	0955	S	SP-6 Westwell
7/31	1010	S	SP-7 Westwell
7/31	1125	S	SP-8 Southwell
7/31	1220	S	SP-9 Eastwell
7/31	1245	S	SP-10 Northwell

Date: 8/6/02 Time: 0700 Requisitioned by: Spencer
 Date: 8/2/02 Time: 1200 Requisitioned by: Spencer

Turn-Around Time: 5 Day Rush
 Standard Rush
 Project Name: Duron
703 E Clinton St. 1 Building
 Project #: Dur-18-002

Project Manager: Allen Rob
 Sampler: Spencer
 On Ice: Yes No
 Sample Temperature: 3.3 (10 (C)) 7.3

Container Type and #	Preservative Type	HEAL No
/	Next	1808182
/		-001
/		-002
/		-003
/		-004
/		-005
/		-006
/		-007
/		-008
/		-009
/		-010

Received by: Spencer Date: 8/2/02 Time: 0830
 Received by: J.G. Courier Date: 8/3/02 Time: 0835



HALL ENVIRONMENTAL ANALYSIS LABORATORY
 www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

<input checked="" type="checkbox"/> BTEX + MTBE + TMBs (8021)	<input checked="" type="checkbox"/> TPH 8015B (GRO / DRO / MRO)	<input checked="" type="checkbox"/> TPH (Method 418.1)	<input checked="" type="checkbox"/> EDB (Method 504.1)	<input checked="" type="checkbox"/> PAH's (8310 or 8270 SIMS)	<input checked="" type="checkbox"/> RCRA 8 Metals	<input checked="" type="checkbox"/> Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	<input checked="" type="checkbox"/> 8081 Pesticides / 8082 PCB's	<input checked="" type="checkbox"/> 8260B (VOA)	<input checked="" type="checkbox"/> 8270 (Semi-VOA)	<input checked="" type="checkbox"/> Air Bubbles (Y or N)
---	---	--	--	---	---	--	--	---	---	--

Remarks: ADD TO LIST
* 5052 @ SASE-NM.COM

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.

Appendix D

Site Photographs

Devon Falcon 32 State 1 Battery

Photos-3-28-2018









Devon Falcon 32 State 1 Battery

Photos 7-10-2018









