<u>District I</u> 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

By JKeyes at 2:45 pm, Mar 07, 2016 **Energy Minerals and Natural Resources** 

**RECEIVED** 

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



#### **Release Notification and Corrective Action**

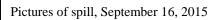
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Surface Ow	ner			Mineral C	)wner				API No	. 30-025-3	0682	
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Unit Letter	Section	Township	Range	Feet from the		/South Line	Feet from the	East/V	Vest Line	County		
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Required	are rionee c		Yes [	□ No □ Not			ance, Production	Forema	n, Matador	Resources		
By Whom? I	emaal Lone	7				Data and L	Iour Sept. 16, 201	5 10:00	Jam			
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				contaminated soil								<b>-</b>
Describe Are	a Affected :	and Cleanun A	Action Tak	ren *								
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Date: Marc	n 7, 2016	Phone:	575-623-6	601		***				2RP 386	9	

## Chevron 12 Fed #5 Final Report Dec. 7, 2015

Matador Resources Production Foreman encountered a broken coupling on a transfer pump on Sept. 16, 2015 at 10:00am. It was estimated that 35 barrels of fluid had spilled into the earthen dike. See attached photos. The foreman turned the well off, telephoned to report the spill, telephoned for a vacuum truck to vacuum up as much fluid as possible, and ordered a new pump. 25 barrels of fluid were recovered.

The well was drilled in 1989. Based on the location of the well, depth to ground water is an estimate from data obtained from the NM Office of the State Engineer. It is estimated that depth to ground water is between 100 and 400 feet from the surface.

Diamondback Disposal Service collected soil samples at the indicated locations. See attached location plat diagram. Soil samples were sent to Cardinal Labs. Original soil samples from the surface indicated benzene, toluene, and total BTEX to be above reporting limits. Contaminated soil was removed from the spill area and taken to R360 environmental. A second set of soil samples were collected at a depth of 18 inches below surface. Cardinal Labs analyzed them. See attached. Results are below reporting limits. Clean soil was brought in, and the location was returned to normal operations.











September 28, 2015

BRANDON PRICE

DIAMONDBACK DISPOSAL SERVICE INC.

P. O. BOX 2491

HOBBS, NM 88241

RE: CHEVRON 12 #5 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 09/22/15 13:38.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.pcv/fleid/igq/lab accred\_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Heloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Celey D. Keine

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



#### Analytical Results For:

DIAMONDBACK DISPOSAL SERVICE INC. BRANDON PRICE P. O. BOX 2491 HOBBS NM, 88241 Fax To: (575) 392-9376

09/22/2015 09/28/2015 CHEVRON 12 #5 BATTERY NONE GIVEN Received: Reported: Project Name: Project Number:

NOT GIVEN

Sampling Date: Sampling Type: Sampling Condition: Sample Received By: 09/21/2015 Soil Cool & Intact Judy Garcia

#### nple ID: SURFACE INITIAL #1 (H502495-01)

Project Location:

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Benzene*	6.30	0.200	09/25/2015	ND	2.01	100	2.00	0.972	
Toluene*	8.58	0.200	09/25/2015	ND	1.72	86.1	2.00	2.19	
Ethylbenzene*	3.97	0.200	09/25/2015	ND	1.62	80.8	2.00	3.25	
Total Xylenes*	4.06	0.600	09/25/2015	ND	5.09	84.9	6.00	1.94	
Total BTEX	22.9	1.20	09/25/2015	ND					

Surrogate: 4-Bromofluorobenzene (PII)	94.1	96 85.6-137							
Chloride, SM4500CI-B	mg	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	09/23/2015	ND	432	108	400	0.00	
TPH 8015M	mg	kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	204	100	09/24/2015	ND	178	88.8	200	12.4	
DRO >C10-C28	31600	100	09/24/2015	ND	226	113	200	0.764	

Surrogate: 1-Chlorooctane 105 % 47.2-157

\*=Accredited Analyte



#### Analytical Results For:

DIAMONDBACK DISPOSAL SERVICE INC. BRANDON PRICE P. O. BOX 2491 HOBBS NM, 88241

Fax To: (575) 392-9376

09/22/2015 Received: 09/28/2015 CHEVRON 12 #5 BATTERY Reported: Project Name: Project Number: NONE GIVEN NOT GIVEN

Sampling Date: 09/21/2015 Sampling Type: Sampling Condition: Soil Cool & Intact Sample Received By: Judy Garcia

Project Location:

Sample ID: SURFACE INITIAL #2 (H502495-02)

D1EX 00210	mg/	~g	Acialyzo	u by. Ho					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.68	0.050	09/25/2015	ND	2.01	100	2.00	0.972	
Toluene*	3.87	0.050	09/25/2015	ND	1.72	86.1	2.00	2.19	
Ethylbenzene*	2.91	0.050	09/25/2015	ND	1.62	80.8	2.00	3.25	
Total Xylenes*	3.32	0.150	09/25/2015	ND	5.09	84.9	6.00	1.94	
Total BTEX	11.8	0.300	09/25/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 85.6-137 Chloride, SM4500CI-B mg/kg Analyzed By: HM Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier 
 Result
 Reporting Limit
 Analyzed
 Method Blank
 BS

 256
 16.0
 09/23/2015
 ND
 432
 Chloride 108 400 0.00 TPH 8015M Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS Analyte % Recovery True Value QC RPD Qualifier 106 100 09/24/2015 ND 178 88.8 22500 100 09/24/2015 ND 226 113 DRO >C10-C28 200 0.764

104 % 47.2-157 760 % 52.1-176 Surrogate: 1-Chlorooctane 47.2-157 Surrogate: 1-Chlorooctadecane

Cardinal Laboratories

\*=Accredited Analyte

Sample Clark and Street and Stree	TOT EAST MARTING, HODDER, NAM 88240  (STS) 383-2236 FAX (STS) 383-2478  Company Name: DAMANA & Arth. DAVOVA! SULTANCE  Project Hodde S  Project Name: Change: Change Change Control Name: Project Name: Change: Change Chan
CHECKED BY:  THE STANDARD CHECKED BY:  THE S	CHAIN-OF-CUSTODY AND ANALYSIS REQUEST  DIAGRAME  PAGE  PAGE  PROCE  PROC











Soil samples collected and analyzed by Cardinal Labs. Final results below. New transfer pump.





November 06, 2015

BRANDON PRICE

DIAMONDBACK DISPOSAL SERVICE INC.

P. O. BOX 2491

HOBBS, NM 88241

RE: CHEVRON 12 #5 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 11/02/15 9:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

 Method EPA 552.2
 Haloacetic Acids (HAA-5)

 Method EPA 524.2
 Total Trihalomethanes (TTHM)

 Method EPA 524.4
 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Final lab results from Cardinal Labs for Chevron 12 -5 spill.



#### Analytical Results For:

DIAMONDBACK DISPOSAL SERVICE INC. BRANDON PRICE P. O. BOX 2491 HOBBS NM, 88241 Fax To: (575) 392-9376

 Received:
 11/02/2015

 Reported:
 11/06/2015

 Project Name:
 CHEVRON 12 #5 BATTERY

 Project Number:
 NONE GIVEN

 Project Location:
 EDDY COUNTY

Sampling Date: Sampling Type: Sampling Condition: Sample Received By: 10/27/2015 Soil Cool & Intact Jodi Henson

#### Sample ID: EAST CONFIRMATION (H502870-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	11/05/2015	ND	2.08	104	2.00	2.22	
Toluene*	< 0.050	0.050	11/05/2015	ND	2.28	114	2.00	2.94	
Ethylbenzene*	< 0.050	0.050	11/05/2015	ND	2.06	103	2.00	3.69	
Total Xylenes*	< 0.150	0.150	11/05/2015	ND	6.56	109	6.00	3.57	
Total BTEX	<0.300	0.300	11/05/2015	ND					
Surrogate: 4-Bromoffworobenzene (PIL	1079	5 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/04/2015	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/04/2015	ND	212	106	200	1.40	
DRO >C10-C28	<10.0	10.0	11/04/2015	ND	218	109	200	2.41	
Surrogate: 1-Chlorooctane	1179	6 35-147	-						
Surrogate: 1-Chlorooctadecane	1309	6 28-171							

Cardinal Laboratories

\*=Accredited Analyte



#### Analytical Results For:

DIAMONDBACK DISPOSAL SERVICE INC. BRANDON PRICE P. O. BOX 2491 HOBBS NM, 88241 Fax To: (575) 392-9376

 Received:
 11/02/2015

 Reported:
 11/06/2015

 Project Name:
 CHEVRON 12 #5 BATTERY

 Project Number:
 NONE GIVEN

 Project Location:
 EDDY COUNTY

Sampling Date: 10/27/2015 Sampling Type: Soil Sampling Condition: Cool & Intact Sample Received By: Jodi Henson

#### Sample ID: WEST CONFIRMATION (H502870-02)

BTEX 80218	mg.	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	11/05/2015	ND	2.08	104	2.00	2.22	
Toluene*	< 0.050	0.050	11/05/2015	ND	2.28	114	2.00	2.94	
Ethylbenzene*	< 0.050	0.050	11/05/2015	ND	2.06	103	2.00	3.69	
Total Xylenes*	< 0.150	0.150	11/05/2015	ND	6.56	109	6.00	3.57	
Total BTEX	< 0.300	0.300	11/05/2015	ND					

Chloride, SM4500CI-B	ng/kg							
		Analyze	d By: AP					
Analyte Resul	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride <16.	16.0	11/04/2015	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS					
Analyte Resul	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO 06-C10 <10.	10.0	11/04/2015	ND	212	106	200	1.40	
DRO >C10-C28 <10.	10.0	11/04/2015	ND	218	109	200	2.41	

Surrogate: 1-Chlorooctane 112 % 35-147
Surrogate: 1-Chlorooctalecane 122 % 28-171

#### PHONE (575) 393-2326 \* 101 F. MARLAND \* HORRS, NM 8824

#### Analytical Results For:

DIAMONDBACK DISPOSAL SERVICE INC. BRANDON PRICE P. O. BOX 2491 HOBBS NM, 88241 Fax To: (575) 392-9376

 Received:
 11/02/2015

 Reported:
 11/06/2015

 Project Name:
 CHEVRON 12 #5 BATTERY

 Project Number:
 NONE GIVEN

 Project Location:
 EDDY COUNTY

Sampling Date: 10/27/2015 Sampling Type: Soil Sampling Condition: Cool & Intact Sample Received By: Jodi Henson

#### Sample ID: CENTER CONFIRMATION (H502870-03)

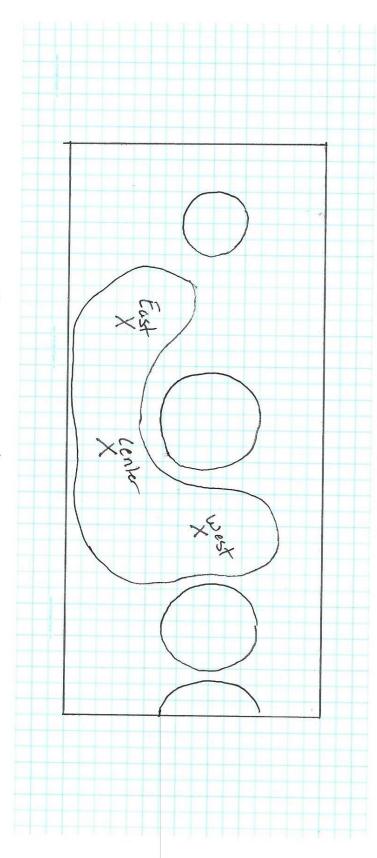
BTEX 80218	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	< 0.050	0.050	11/05/2015	ND	2.08	104	2.00	2.22	
Toluene*	< 0.050	0.050	11/05/2015	ND	2.28	114	2.00	2.94	
Ethylbenzene*	< 0.050	0.050	11/05/2015	ND	2.06	103	2.00	3.69	
Total Xylenes*	< 0.150	0.150	11/05/2015	ND	6.56	109	6.00	3.57	
Total BTEX	< 0.300	0.300	11/05/2015	ND					
Surrogate: 4-Bromofluorobenzene (PIL	1089	6 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	<16.0	16.0	11/04/2015	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO 06-C10	<10.0	10.0	11/04/2015	ND	212	106	200	1.40	
DRO >C10-C28	<10.0	10.0	11/04/2015	ND	218	109	200	2.41	
Surrogate: 1-Chlorooctane	110 9	6 35-147							
Surrogate: 1-Chlorooctadecane	1219	6 28-171							

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Control One)  Times  Circle One)	ple 1.	Laboratories  101 East Mariand, Hobbs, NM 88240  (876) 393-2326 FAX (876) 393-2476  105 Marianet Approached Laboratories Company Name: Opposite Name (1976) 1876 (
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Diamondback Location Plat

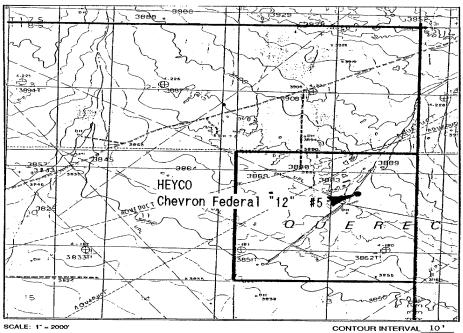
Well/Facility Name: Chlum 12 #5

Date: 11-30-15



Apriox 18 in deep

#### LOCA ION VERIFICATION ...AP



SCALE: 1' = 2000'

SEC\_\_\_12\_\_TWP.\_\_\_\_185\_\_RGE\_\_\_32E

SURVEY\_\_\_\_\_N.M.P.M.

COUNTY\_\_\_Lea\_\_\_\_\_STATE\_NM

DESCRIPTION\_\_\_\_\_1650' FNL & 1650' FEL

ELEVATION\_\_\_\_\_\_3881.3

OPERATOR\_\_Harvey\_E.\_\_Yates\_Company

LEASE\_\_Chevron\_Federal\_\_"12" #5.\_\_\_\_\_

U.S.G.S. TOPOGRAPHIC MAP

Dog Lake, NM

JOHN WEST ENGINEERING HOBBS, NEW MEXICO (505) 393-3117



January 12, 2016

#5B24624 BG1

Catherine Green Regulatory Analyst Matador Resources Company PO Box 1933, Roswell, NM 88202

SUBJECT: SUMMARY OF WORK PERFORMED AT THE CHEVRON 12 #005, LEA COUNTY, NEW **MEXICO** 

Dear Mrs. Green,

Souder, Miller & Associates (SMA) is pleased to submit this summary of work and laboratory analytical results for the remediated tank battery located on site, related to Chevron 12 # 005. SMA staff based in the Carlsbad, New Mexico office, within 55 miles of the project site performed the field sampling of the tank battery. All field samples were collected under the supervision Kellie Jones, Environmental Specialist, District 1 Oil Conservation Division, EMNRD. All samples collected were sent under chain of custody to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for laboratory analytical confirmation. Senior support and QAQC review on this project was provided by our Farmington office.

For questions or comments pertaining to the assessment, please feel free to contact me.

Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES

J. Austin Weyant **Project Scientist** 

Cynthia Gray, CHMM

Senior Scientist



## SITE ASSESSMENT AND SAMPLE RESULTS CHEVRON 12 #005

API# 30-025-30682 SECTION 12, T18S R32E, NMPM LEA COUNTY, NM



Prepared for: Matador Resources Company PO Box 1933, Roswell, NM 88202 Prepared by: Souder, Miller & Associates 201 S. Halagueno Carlsbad, NM 88221 575-689-7040

January 12, 2016 SMA Reference 5B24270 BG1

#### **Table of Contents**

1.0	Introduction	4
2.0	Site Assessment	4
3.0	Summary of Work Performed	4
4.0	Conclusions and Recommendations	4

#### Figures:

Figure 1: Vicinity Map

Figure 2: Detailed Site and Sample Map

#### Tables:

Table 1: Summary of Field Screening Table 2: Summary of Lab Results

#### **Appendix:**

Appendix A: Laboratory Analytical Results Appendix B: Photos and Field Notes

#### 1.0 Introduction

At the request of Matador Resources Company, Souder, Miller & Associates (SMA) has prepared this summary of work related to the Chevron 12 #005. The site is located in Section 12, T 18S, R 32 E NMPM, Lea County, New Mexico, on land owned by the Bureau of Land Management (BLM).

#### 2.0 Site Assessment

On December 10, 2015, SMA Carlsbad Office personnel requested, on behalf of Matador Resources Company, that representatives from both NMOCD and BLM witness a sample event regarding the release site located on the Chevron 12 Fed 5 in Lea County, New Mexico. The purpose of the sample event was to document remediation and obtain approval from the New Mexico Oil Conservation Division (NMOCD) and Bureau of Land Management for closure of the open incident 1RP-3869.

#### 3.0 Summary of Work Performed

On December 16, 2015, after receiving 811 clearance, SMA field personnel assessed the remediated release area onsite with a gas powered auger and Photo Ionization Detector RAE 2000. The potentially affected area was found to be approximately 75 feet long and 20 feet wide. Delineation samples were taken to depths of three feet bgs. Specific sample locations for all samples are depicted on Figure 2 (Sample Location Map) along with sampling details. All samples were collected and processed according to NMOCD soil sampling procedures.

Each sample container was labeled, placed on ice in an insulated cooler, and chilled to a temperature of approximately 40°F (4°C). The cooler was then sealed for shipment to the laboratory. The soil samples were delivered to Hall Environmental Analysis Laboratory, in Albuquerque, New Mexico for TPH (GRO/ DRO) analysis by EPA Method 8015 (modified) and BTEX analyses by EPA Method\8021B. Proper chain-of-custody documentation accompanied the samples to the laboratory.

#### 4.0 Conclusions and Recommendations

The ranking for the Chevron 12 #005 site was previously established by Matador Resources as a 0. NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 0: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 5000 ppm TPH.

Laboratory analytical results for all final closure samples collected were below NMOCD action levels for Benzene, BTEX, and TPH as well as below laboratory detection limits for the methods used.

Soil sample locations are illustrated in Figure 2. A summary of laboratory analytical results is included in Table 2. Laboratory reports are included in Appendix A. Photo documentation is in Appendix B.

If there are any questions regarding this report, please contact either Austin Weyant at 575-689-7040 or Cindy Gray at 505-325-7535.

Submitted by: Reviewed by:

SOUDER, MILLER & ASSOCIATES

Austin Weyant Project Scientist Cynthia Gray, CHMM Senior Scientist

#### Figures:

Figure 1: Vicinity Map

Figure 2: Detailed Site and Sample Map

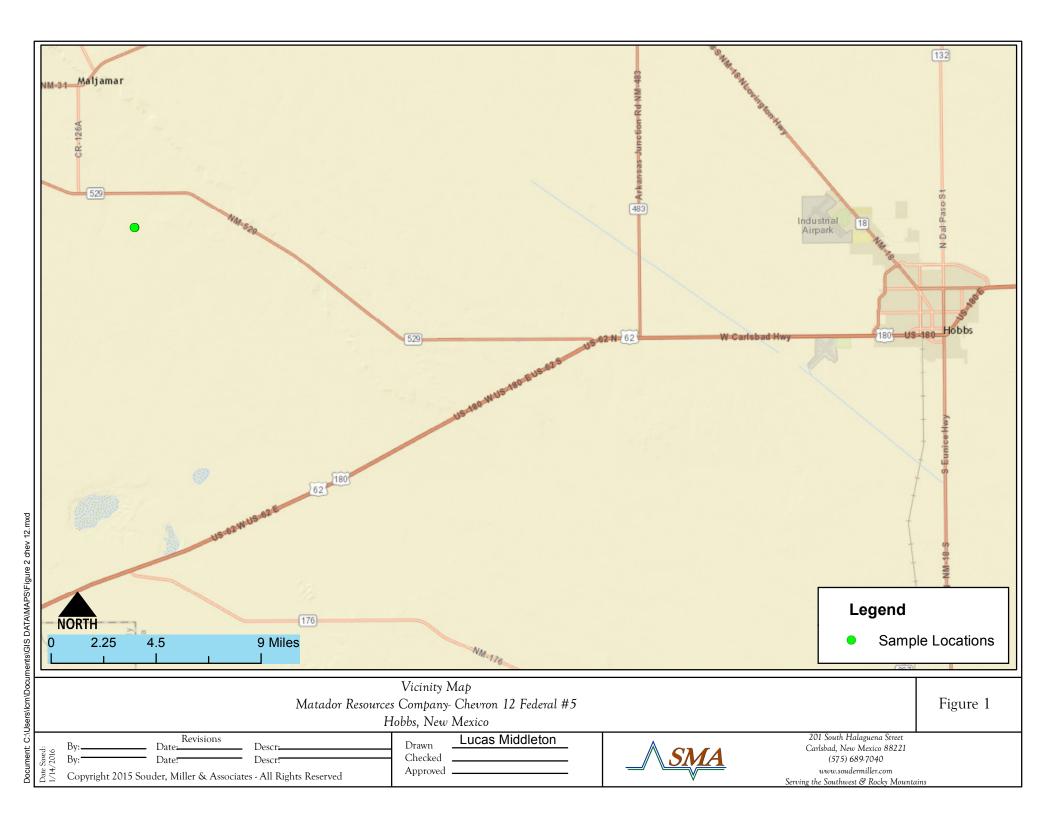
#### Tables:

Table 1: Summary of Field Screening Table 2: Summary of Lab Results

#### Appendix:

Appendix A: Laboratory Analytical Results Appendix B: Photos and Field Notes

### FIGURE 1 VICINITY MAP



## FIGURE 2 DETAILED SITE AND SAMPLE MAP



Serving the Southwest & Rocky Mountains

Copyright 2015 Souder, Miller & Associates - All Rights Reserved

### TABLE 1 SUMMARY OF FIELD RESULTS

		FIELD SCREENING RES	SULTS SUMMA	RY	
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	PID Results	Lab Sample Collected Y/N
12/16/2015	15:00	L1W-1	1	ND	У
12/16/2015	15:00	L1W-2	2	ND	У
12/16/2015	15:00	L1W-3	3	ND	У
12/16/2015	15:00	L2C-1	1	ND	У
12/16/2015	15:00	L2C-2	2	ND	У
12/16/2015	15:00	L2C-3	3	ND	У
12/16/2015	15:00	L3E-1	1	ND	У
12/16/2015	15:00	L3E-2	2	ND	У
12/16/2015	15:00	L3E-3	3	ND	У



# TABLE 2 SUMMARY OF LABORATORY ANALYSES

**Table 2: Summary of Laboratory Analyses** 

Analytical Report- 1512A53	Sample Number on Figure 2 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	CI- mg/Kg
1512A53- 001	L1W-2	12/16/2015	2	BDL	BDL	BDL	43	N/A
1512A53- 002	L1W-3	12/16/2015	3	BDL	BDL	BDL	BDL	N/A
1512A53- 003	L2C-2	12/16/2015	2	BDL	BDL	BDL	BDL	N/A
1512A53- 004	L2C-3	12/16/2015	3	BDL	BDL	BDL	BDL	N/A
1512A53- 005	L3E-2	12/16/2015	2	BDL	BDL	BDL	15	N/A
1512A53- 006	L3E-3	12/16/2015	3'	BDL	BDL	BDL	BDL	N/A

## APPENDIX A LABORATORY REPORT



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

December 30, 2015

Austin Weyant Souder, Miller & Associates 201 S Halagueno Carlsbad, NM 88221

TEL: (575) 689-7040

FAX

RE: Chevron 12 #5 OrderNo.: 1512A53

#### Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 6 sample(s) on 12/22/2015 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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 qualifers 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,

Andy Freeman

Laboratory Manager

Indest

4901 Hawkins NE

Albuquerque, NM 87109

#### Lab Order **1512A53**

Date Reported: 12/30/2015

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: LIW-2

 Project:
 Chevron 12 #5
 Collection Date: 12/16/2015 3:00:00 PM

 Lab ID:
 1512A53-001
 Matrix: SOIL
 Received Date: 12/22/2015 9:25:00 AM

Analyses	Result	RL Ç	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	s			Analyst	:: KJH
Diesel Range Organics (DRO)	43	9.6	mg/Kg	1	12/28/2015 3:56:02 PM	1 22934
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/28/2015 3:56:02 PM	1 22934
Surr: DNOP	89.6	70-130	%REC	1	12/28/2015 3:56:02 PM	1 22934
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/24/2015 4:27:39 PM	1 22945
Surr: BFB	80.1	66.2-112	%REC	1	12/24/2015 4:27:39 PM	1 22945
EPA METHOD 8021B: VOLATILES					Analyst	:: NSB
Methyl tert-butyl ether (MTBE)	ND	0.096	mg/Kg	1	12/24/2015 4:27:39 PM	1 22945
Benzene	ND	0.048	mg/Kg	1	12/24/2015 4:27:39 PM	22945
Toluene	ND	0.048	mg/Kg	1	12/24/2015 4:27:39 PM	22945
Ethylbenzene	ND	0.048	mg/Kg	1	12/24/2015 4:27:39 PM	22945
Xylenes, Total	ND	0.096	mg/Kg	1	12/24/2015 4:27:39 PM	22945
Surr: 4-Bromofluorobenzene	99.9	80-120	%REC	1	12/24/2015 4:27:39 PM	1 22945

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

- \* 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
- R RPD outside accepted recovery limits
- 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 Page 1 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order **1512A53** 

Date Reported: 12/30/2015

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: LIW-3

 Project:
 Chevron 12 #5
 Collection Date: 12/16/2015 3:00:00 PM

 Lab ID:
 1512A53-002
 Matrix: SOIL
 Received Date: 12/22/2015 9:25:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	12/28/2015 4:17:48 PM	22934
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/28/2015 4:17:48 PM	22934
Surr: DNOP	89.4	70-130	%REC	1	12/28/2015 4:17:48 PM	22934
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	12/24/2015 4:52:14 PM	22945
Surr: BFB	88.5	66.2-112	%REC	1	12/24/2015 4:52:14 PM	22945
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Methyl tert-butyl ether (MTBE)	ND	0.093	mg/Kg	1	12/24/2015 4:52:14 PM	22945
Benzene	ND	0.046	mg/Kg	1	12/24/2015 4:52:14 PM	22945
Toluene	ND	0.046	mg/Kg	1	12/24/2015 4:52:14 PM	22945
Ethylbenzene	ND	0.046	mg/Kg	1	12/24/2015 4:52:14 PM	22945
Xylenes, Total	ND	0.093	mg/Kg	1	12/24/2015 4:52:14 PM	22945
Surr: 4-Bromofluorobenzene	119	80-120	%REC	1	12/24/2015 4:52:14 PM	22945

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

- \* 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
- R RPD outside accepted recovery limits
- 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 Page 2 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit

#### Lab Order **1512A53**

Date Reported: 12/30/2015

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: L2C-2

 Project:
 Chevron 12 #5
 Collection Date: 12/16/2015 3:00:00 PM

 Lab ID:
 1512A53-003
 Matrix: SOIL
 Received Date: 12/22/2015 9:25:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANIC	S			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/28/2015 4:39:22 PM	22934
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/28/2015 4:39:22 PM	22934
Surr: DNOP	90.0	70-130	%REC	1	12/28/2015 4:39:22 PM	22934
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/24/2015 5:16:51 PM	22945
Surr: BFB	84.1	66.2-112	%REC	1	12/24/2015 5:16:51 PM	22945
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Methyl tert-butyl ether (MTBE)	ND	0.095	mg/Kg	1	12/24/2015 5:16:51 PM	22945
Benzene	ND	0.048	mg/Kg	1	12/24/2015 5:16:51 PM	22945
Toluene	ND	0.048	mg/Kg	1	12/24/2015 5:16:51 PM	22945
Ethylbenzene	ND	0.048	mg/Kg	1	12/24/2015 5:16:51 PM	22945
Xylenes, Total	ND	0.095	mg/Kg	1	12/24/2015 5:16:51 PM	22945
Surr: 4-Bromofluorobenzene	111	80-120	%REC	1	12/24/2015 5:16:51 PM	22945

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

- \* 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
- R RPD outside accepted recovery limits
- 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 Page 3 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit

#### Lab Order **1512A53**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/30/2015

CLIENT: Souder, Miller & Associates Client Sample ID: L2C-3

 Project:
 Chevron 12 #5
 Collection Date: 12/16/2015 3:00:00 PM

 Lab ID:
 1512A53-004
 Matrix: SOIL
 Received Date: 12/22/2015 9:25:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	s			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	12/28/2015 5:01:09 PM	22934
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	12/28/2015 5:01:09 PM	22934
Surr: DNOP	92.3	70-130	%REC	1	12/28/2015 5:01:09 PM	22934
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/24/2015 8:56:49 PM	22945
Surr: BFB	79.7	66.2-112	%REC	1	12/24/2015 8:56:49 PM	22945
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Methyl tert-butyl ether (MTBE)	ND	0.096	mg/Kg	1	12/24/2015 8:56:49 PM	22945
Benzene	ND	0.048	mg/Kg	1	12/24/2015 8:56:49 PM	22945
Toluene	ND	0.048	mg/Kg	1	12/24/2015 8:56:49 PM	22945
Ethylbenzene	ND	0.048	mg/Kg	1	12/24/2015 8:56:49 PM	22945
Xylenes, Total	ND	0.096	mg/Kg	1	12/24/2015 8:56:49 PM	22945
Surr: 4-Bromofluorobenzene	104	80-120	%REC	1	12/24/2015 8:56:49 PM	22945

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

- \* 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
- R RPD outside accepted recovery limits
- 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 Page 4 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order **1512A53** 

Date Reported: 12/30/2015

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Souder, Miller & Associates Client Sample ID: L3E-2

 Project:
 Chevron 12 #5
 Collection Date: 12/16/2015 3:00:00 PM

 Lab ID:
 1512A53-005
 Matrix: SOIL
 Received Date: 12/22/2015 9:25:00 AM

Analyses	Result	RL (	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S			Analyst	: KJH
Diesel Range Organics (DRO)	15	9.5	mg/Kg	1	12/28/2015 5:22:34 PM	22934
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/28/2015 5:22:34 PM	22934
Surr: DNOP	94.6	70-130	%REC	1	12/28/2015 5:22:34 PM	22934
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/24/2015 9:21:09 PM	22945
Surr: BFB	81.2	66.2-112	%REC	1	12/24/2015 9:21:09 PM	22945
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Methyl tert-butyl ether (MTBE)	ND	0.094	mg/Kg	1	12/24/2015 9:21:09 PM	22945
Benzene	ND	0.047	mg/Kg	1	12/24/2015 9:21:09 PM	22945
Toluene	ND	0.047	mg/Kg	1	12/24/2015 9:21:09 PM	22945
Ethylbenzene	ND	0.047	mg/Kg	1	12/24/2015 9:21:09 PM	22945
Xylenes, Total	ND	0.094	mg/Kg	1	12/24/2015 9:21:09 PM	22945
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	12/24/2015 9:21:09 PM	22945

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

- \* 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
- R RPD outside accepted recovery limits
- 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 Page 5 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit

#### Lab Order **1512A53**

Date Reported: 12/30/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: L3E-3

 Project:
 Chevron 12 #5
 Collection Date: 12/16/2015 3:00:00 PM

 Lab ID:
 1512A53-006
 Matrix: SOIL
 Received Date: 12/22/2015 9:25:00 AM

Analyses	Result	RL (	Qual Units	DF Date Analyzed I	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S		Analyst: I	KJH
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1 12/28/2015 5:44:12 PM	22934
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1 12/28/2015 5:44:12 PM	22934
Surr: DNOP	90.5	70-130	%REC	1 12/28/2015 5:44:12 PM	22934
EPA METHOD 8015D: GASOLINE RANG	GE			Analyst: I	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1 12/24/2015 9:45:26 PM	22945
Surr: BFB	75.8	66.2-112	%REC	1 12/24/2015 9:45:26 PM	22945
EPA METHOD 8021B: VOLATILES				Analyst: I	NSB
Methyl tert-butyl ether (MTBE)	ND	0.098	mg/Kg	1 12/24/2015 9:45:26 PM	22945
Benzene	ND	0.049	mg/Kg	1 12/24/2015 9:45:26 PM	22945
Toluene	ND	0.049	mg/Kg	1 12/24/2015 9:45:26 PM	22945
Ethylbenzene	ND	0.049	mg/Kg	1 12/24/2015 9:45:26 PM	22945
Xylenes, Total	ND	0.098	mg/Kg	1 12/24/2015 9:45:26 PM	22945
Surr: 4-Bromofluorobenzene	98.5	80-120	%REC	1 12/24/2015 9:45:26 PM	22945

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

- \* 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
- R RPD outside accepted recovery limits
- 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 Page 6 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit

#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: 1512A53

30-Dec-15

Client: Souder, Miller & Associates

**Project:** Chevron 12 #5

Motor Oil Range Organics (MRO)         ND         50           Surr: DNOP         8.7         10.00         87.0         70         130           Sample ID         LCS-22934         SampType: LCS         TestCode: EPA Method 8015M/D: Diesel Range Organics           Client ID:         LCSS         Batch ID: 22934         RunNo: 31075           Prep Date:         12/23/2015         Analysis Date: 12/28/2015         SeqNo: 950855         Units: mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual	Project: Chevror	1 12 #3					
Prep Date:         12/23/2015         Analysis Date:         12/28/2015         SeqNo:         950854         Units: mg/Kg           Analyte         Result         PQL         SPK value         SPK ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Diesel Range Organics (DRO) Surr: DNOP         ND         10         50         8.7         70         130	Sample ID MB-22934	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics			
Name	Client ID: PBS	Batch ID: 22934	RunNo: 31075				
Diesel Range Organics (DRO)   ND   10   ND   50   Surr; DNOP   8.7   10.00   87.0   70   130   Surr; DNOP   10   10.00   87.0   10.00   87.0   130   Surr; DNOP   10   10.00	Prep Date: 12/23/2015	Analysis Date: 12/28/2015	SeqNo: 950854	Units: mg/Kg			
Motor Oil Range Organics (MRO) Surr: DNOP         ND 8.7         50 10.00         87.0         70 130         130         Analysis Date: 12/28/2015         10.00         87.0         70 130         130         Fresh Date: 12/29/2015         Range Organics (MRO) Surr: DNOP         Range Organics (MRO) Surr: DNOP         SeqNo: 950855         Units: mg/Kg         Value SPK Ref Va	Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual			
Sum: DNOP         8.7         10.00         87.0         70         130           Sample ID LCS-22934         Samply : LCS         TestCode: EPA Method 8015M/D: Dieset Range Organics           Client ID: LCSS         Batch ID: 22934         RunNo: 31075           Prep Date: 12/23/2015         Analysis Date: 12/28/2015         SeqNo: 950855         Units: mg/Kg           Analyte         Result         PQL         SPK Ref Val         %REC         LowLimit         High Limit         %RPD RPDLimit         Qual           Sample ID MB-22969         Samply : MBLK         TestCode: EPA Method 8015M/D: Dieset Range Organics           Client ID: PBS         Batch ID: 22969         RunNo: 31107           Prep Date: 12/28/2015         Analysis Date: 12/29/2015         SeqNo: 951981         Units: %RPD         RPDLimit         Qual           Sample ID LCS-22969         Sample ID 10.00         10.00         TestCode: EPA Method 8015M/D: Dieset Range Organics           Sample ID LCS-22969	Diesel Range Organics (DRO)	ND 10					
Sample ID         LCS-22934         SampType: LCS         TestCode: EPA Method 8015M/D: Diesel Range Organics           Client ID:         LCSS         Batch ID:         22934         RunNo:         31075           Prep Date:         12/23/2015         Analysis Date:         12/28/2015         SeqNo:         950855         Units: mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Diesel Range Organics (DRO)         47         10         50.00         0         94.2         65.8         136	Motor Oil Range Organics (MRO)	ND 50					
Client ID: LCSS   Batch ID: 22934   RunNo: 31075   Republic: 12/23/2015   SeqNo: 950855   Units: mg/Kg   SeqNo: 950855   U	Surr: DNOP	8.7 10.00	87.0 70	130			
Prep Date:         12/23/2015         Analysis Date:         12/28/2015         SeqNo:         950855         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Diesel Range Organics (DRO) Surr: DNOP         47         10         50.00         0         94.2         65.8         136         136         136         136         136         136         130 <t< td=""><td>Sample ID LCS-22934</td><td colspan="6">SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics</td></t<>	Sample ID LCS-22934	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics					
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Diesel Range Organics (DRO) 47 10 50.00 0 94.2 65.8 136 Surr: DNOP 5.0 5.00 50.00 99.6 70 130  Sample ID MB-22969 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 22969 RunNo: 31107  Prep Date: 12/28/2015 Analysis Date: 12/29/2015 SeqNo: 951981 Units: %REC  Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Surr: DNOP 10 10.00 10.00 10.2 70 130  Sample ID LCS-22969 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 22969 RunNo: 31107  Prep Date: 12/28/2015 Analysis Date: 12/29/2015 SeqNo: 951987 Units: %REC  Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Client ID: LCSS	Batch ID: 22934	RunNo: 31075				
Diesel Range Organics (DRO)	Prep Date: 12/23/2015	Analysis Date: 12/28/2015	SeqNo: <b>950855</b>	Units: mg/Kg			
Surr: DNOP         5.0         5.000         99.6         70         130           Sample ID         MB-22969         SampType: MBLK         TestCode: EPA Method 8015M/D: Diesel Range Organics           Client ID: PBS         Batch ID: 22969         RunNo: 31107           Prep Date: 12/28/2015         Analysis Date: 12/29/2015         SeqNo: 951981         Units: %REC           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Surr: DNOP         10         10.00         102         70         130         TestCode: EPA Method 8015M/D: Diesel Range Organics           Sample ID         LCS-22969         SampType: LCS         TestCode: EPA Method 8015M/D: Diesel Range Organics         RunNo: 31107           Prep Date: 12/28/2015         Analysis Date: 12/29/2015         SeqNo: 951987         Units: %REC           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual	Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual			
Sample ID         MB-22969         SampType:         MBLK         TestCode:         EPA Method         8015M/D:         Diesel Range         Organics           Client ID:         PBS         Batch ID:         22969         RunNo:         31107           Prep Date:         12/28/2015         Analysis Date:         12/29/2015         SeqNo:         951981         Units:         %REC           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Surr: DNOP         10         10.00         102         70         130         TestCode:         EPA Method         8015M/D:         Diesel Range         Organics           Sample ID         LCS-22969         SampType:         LCS         TestCode:         EPA Method         8015M/D:         Diesel Range         Organics           Client ID:         LCSS         Batch ID:         22969         RunNo:         31107           Prep Date:         12/28/2015         Analysis Date:         12/29/2015         SeqNo:         951987         Units:         %REC           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC	Diesel Range Organics (DRO)	47 10 50.00	0 94.2 65.8	136			
Client ID:       PBS       Batch ID:       22969       RunNo:       31107         Prep Date:       12/28/2015       Analysis Date:       12/29/2015       SeqNo:       951981       Units:       %REC         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         Surr: DNOP       10       10.00       10.00       102       70       130	Surr: DNOP	5.0 5.000	99.6 70	130			
Prep Date:         12/28/2015         Analysis Date:         12/29/2015         SeqNo:         951981         Units:         %REC           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Surr: DNOP         10         10.00         10.00         102         70         130	Sample ID MB-22969	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics			
Analyte         Result Surr: DNOP         PQL         SPK value 10.00         SPK Ref Value 10.00         %REC 10.00         LowLimit HighLimit HighLimit HighLimit 9/RPD RPDLimit Qual 10.00         Qual 10.00         PQL 1	Client ID: PBS	Batch ID: 22969	RunNo: 31107				
Surr: DNOP         10         10.00         102         70         130           SampType: LCS         TestCode: EPA Method 8015M/D: Diesel Range Organics           Client ID: LCSS         Batch ID: 22969         RunNo: 31107           Prep Date: 12/28/2015         Analysis Date: 12/29/2015         SeqNo: 951987         Units: %REC           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual	Prep Date: 12/28/2015	Analysis Date: 12/29/2015	SeqNo: <b>951981</b>	Units: %REC			
Sample ID LCS-22969 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 22969 RunNo: 31107 Prep Date: 12/28/2015 Analysis Date: 12/29/2015 SeqNo: 951987 Units: %REC Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual			
Client ID:         LCSS         Batch ID:         22969         RunNo:         31107           Prep Date:         12/28/2015         Analysis Date:         12/29/2015         SeqNo:         951987         Units:         %REC           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual	Surr: DNOP	10 10.00	102 70	130			
Prep Date: 12/28/2015 Analysis Date: 12/29/2015 SeqNo: 951987 Units: %REC  Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Sample ID LCS-22969	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics			
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Client ID: LCSS	Batch ID: 22969	RunNo: 31107				
2,4	Prep Date: 12/28/2015	Analysis Date: 12/29/2015	SeqNo: <b>951987</b>	Units: %REC			
Surr: DNOP         4.9         5.000         98.1         70         130	Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual			
	Surr: DNOP	4.9 5.000	98.1 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
- R RPD outside accepted recovery limits
- 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

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#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: 1512A53

30-Dec-15

Client: Souder, Miller & Associates

**Project:** Chevron 12 #5

Sample ID MB-22945 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 22945 RunNo: 31062

Prep Date: 12/23/2015 Analysis Date: 12/24/2015 SeqNo: 950266 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 820 1000 81.7 66.2 112

Sample ID LCS-22945 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 22945 RunNo: 31062

Prep Date: 12/23/2015 Analysis Date: 12/24/2015 SeqNo: 950267 Units: mg/Kg

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

 Gasoline Range Organics (GR0)
 25
 5.0
 25.00
 0
 100
 79.6
 122

 Surr: BFB
 910
 1000
 90.7
 66.2
 112

#### 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
- R RPD outside accepted recovery limits
- 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

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#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: 1512A53

30-Dec-15

Souder, Miller & Associates **Client:** 

**Project:** Chevron 12 #5

Sample ID MB-22945	SampT	уре: МЕ	BLK	Tes	TestCode: EPA Method 8021B: Volatiles					
Client ID: PBS	Batch	n ID: 22	945	R	RunNo: 3	1062				
Prep Date: 12/23/2015	Analysis D	Date: 12	2/24/2015	S	SeqNo: 9	50286	Units: mg/k	<b>K</b> g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			
Sample ID LCS-22945	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Sample ID LCS-22945 Client ID: LCSS		ype: <b>LC</b>			tCode: El		8021B: Vola	tiles		
		n ID: 22	945	F		1062	<b>8021B: Vola</b> Units: <b>mg/</b> F			
Client ID: LCSS	Batch	n ID: 22	945 2/24/2015	F	RunNo: 3	1062			RPDLimit	Qual
Client ID: LCSS Prep Date: 12/23/2015	Batch Analysis D	n ID: 229	945 2/24/2015	R S	RunNo: 3 SeqNo: 9	1062 50305	Units: mg/h	⟨g	RPDLimit	Qual
Client ID: LCSS Prep Date: 12/23/2015 Analyte	Batch Analysis D Result	n ID: <b>22</b> 9 Pate: <b>12</b>	945 2/24/2015 SPK value	S SPK Ref Val	RunNo: 3 SeqNo: 9 %REC	1062 50305 LowLimit	Units: mg/r	⟨g	RPDLimit	Qual
Client ID: LCSS Prep Date: 12/23/2015 Analyte Methyl tert-butyl ether (MTBE)	Batch Analysis D Result 1.0	PQL 0.10	945 2/24/2015 SPK value 1.000	SPK Ref Val	RunNo: 3 SeqNo: 9 %REC 103	1062 50305 LowLimit 67.2	Units: mg/F HighLimit	⟨g	RPDLimit	Qual
Client ID: LCSS Prep Date: 12/23/2015 Analyte Methyl tert-butyl ether (MTBE) Benzene	Batch Analysis D Result 1.0 1.0	PQL 0.10 0.050	945 2/24/2015 SPK value 1.000 1.000	SPK Ref Val 0 0	RunNo: 3 SeqNo: 9 %REC 103 102	1062 50305 LowLimit 67.2 80	Units: mg/k HighLimit 121 120	⟨g	RPDLimit	Qual
Client ID: LCSS Prep Date: 12/23/2015 Analyte Methyl tert-butyl ether (MTBE) Benzene Toluene	Batch Analysis D Result 1.0 1.0 1.0	PQL 0.10 0.050 0.050	945 2/24/2015 SPK value 1.000 1.000	SPK Ref Val  0 0 0	RunNo: <b>3</b> SeqNo: <b>9</b> **REC  103  102  102	1062 50305 LowLimit 67.2 80 80	Units: mg/F HighLimit 121 120 120	⟨g	RPDLimit	Qual

Sample ID MB-22951	SampType	: MBLK	TestCo	de: EPA Method	l 8021B: Volati	les		
Client ID: PBS	Batch ID	: 22951	Run	No: <b>31062</b>				
Prep Date: 12/23/2015	Analysis Date	12/24/2015	Seq	No: <b>950330</b>	Units: %REC			
Analyte	Result F	QL SPK value	SPK Ref Val %	REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1	1.000		107 80	120			

Sample ID LCS-22951	SampType:	LCS	Test	Code: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch ID:	22951	R	unNo: 3	1062				
Prep Date: 12/23/2015	Analysis Date:	12/24/2015	S	eqNo: 9	50331	Units: %RE			
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2	1.000		119	80	120			

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

Reporting Detection Limit

J Analyte detected below quantitation limits

Sample pH Not In Range P

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Hall Environmental Analysis Laboratory 4901 Hawkins NE

Albuquerque, NM 87109

#### Sample Log-In Check List

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Client Name: SMA-CARLSBAD Work Order Number	r. 1512A53		RcptNo: 1	
eceived by/date: A 12/32/15		Λ		
ogged By: Ashley Gallegos 12/22/2015 9:25:00 A	MM	A P		
Completed By: Ashley Gallegos 12/23/2015 8:36:52 A	MM	A		
Reviewed By: +0 17/83/15		4		
Chain of Custody				
1. Custody seals intact on sample bottles?	Yes	No 🗆	Not Present 🗹	
2. Is Chain of Custody complete?	Yes 🗸	No 🗆	Not Present	
3. How was the sample delivered?	Courier			
Log In				
Was an attempt made to cool the samples?	Yes 🗸	No 🗆	NA 🗆	
<ol> <li>Were all samples received at a temperature of &gt;0° C to 6.0°C</li> </ol>	Yes 🗹	No 🗆	na 🗆	
6. Sample(s) in proper container(s)?	Yes 🗸	No 🗆		
7, Sufficient sample volume for indicated test(s)?	Yes 🗸	No 🗆		
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗸	No 🗆		
9. Was preservative added to bottles?	Yes	No 🗸	NA 🗆	
10.VOA vials have zero headspace?	Yes 🗌	No 🗆	No VOA Vials 🗹	
11. Were any sample containers received broken?	Yes	No 🗸	# of preserved	
			bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗸	No 🗆	for pH: (<2 or	>12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🗸	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?	Yes 🗸	No 🗆		
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗸	No 🗆	Checked by:	
(II II				
Special Handling (if applicable)	_	-		
16. 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:				
17. Additional remarks:				
18. Cooler Information				
Cooler No Temp °C   Condition   Seal Intact   Seal No	Seal Date	Signed By		
1 4.3 Good Yes				

## APPENDIX B PHOTOS AND FIELD NOTES





It is the expressed policy of SMA to conduct a safety meeting with all personnel on the jobsite prior to beginning any work. Where applicable the Site Supervisor will conduct the safety meeting and prepare the form. All safety meetings will comply with Tribal, State and Federal regulations and any safety procedures issued by the client. Project Ref.: Location: Type of work to be performed: Exaction of affected soils with Lab field analysis of Cl- for samples SMA Supervisor (Print Name) Hand, Eye and Head Safety Slip, Trip and Fall **Heavy Equipment Operation** NXXXI Heat and Cold Stress Fire/Explosion Confined Space Trench Safety Inhalation Hazards Noise **Underground Hazards** Overhead Hazards Contaminated Soils/Liquids High Pressure Petroleum Pipeline Safety Chemical Exposure Wildlife, Insects, Microbial Welding Safety Chemical /HAZMAT exposure Other: Personal Protective Equipment: SAFETY BOOTS NOMEX/FRC SAFETY VES PROTECTION GAS DETECTOR HEARING HARDHAT GLASSES GLOVES EVEL A SHIELDS W/side OTHER EVEL EVEL DAILY ROUTINE X X SAMPLING (OIL FIELD) X X SAMPLING (NON-OIL FIELD) EXCAVATION (OIL FIELD) **EXCAVATION (NON OIL FIELD) FACILITY INVENTORY** CHEMICAL INVENTORY DRILLING OPERATIONS **EMERGENCY RESPONSE** UNDERGROUND STORAGE TANK REMOVAL HAZARDOUS MATERIAL CONTAINMENT/RECOVERY Other equipment requirements: Be Safe and Communicate Company

(Attach additional sheets as required)

401 W. Broadway. Farmington, NM 87401

Telephone: 505-325-7535 FAX: 505-326-0045



Collected 3 foot delineation samples in three locations around the tank battery