Souder, Miller & Associates♦201 S. Halagueno St.♦Carlsbad, NM 88220
(575) 689-8801

April 2, 2019

#5E27951-BG2

NMOCD District 2
811 S. First Street
Artesia, New Mexico 88210

SUBJECT: Remediation Closure Report for the Dark Canyon 15-22 State Com WCA 2H, 3H, 4H Release (2RP-5098), Eddy, New Mexico

To Whom It May Concern:

On behalf of Chisholm Energy Operating, LLC, Souder, Miller & Associates (SMA) has prepared this Remediation Closure Report that describes the remediation of a release of liquids related to oil and gas production activities at the Dark Canyon 15-22 State Com WCA 2H, 3H, 4H site. The site is in Unit D, Section 15, Township 23S, Range 26E, Eddy County, New Mexico, on state land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

Table 1: Release Information and Closure Criteria			
Name	Dark Canyon 15-22 State Com WCA 2H, 3H, 4H	Company	Chisholm Energy Operating, LLC
API Number	30-015-44538/30-015-44539/30-015-44647	Location	32.31127 -104.28753
Incident Number	2RP-5098		
Estimated Date of Release	11/13/2018	Date Reported to NMOCD	11/13/2018
Land Owner	State of New Mexico	Reported To	NMOCD
Source of Release	Produced Water Line		
Released Volume	120 bbls	Released Material	Produced Water
Recovered Volume	20	Net Release	100
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	1/21/2019, 3/14/19		

1.0 Background

On November 13, 2018, a release was discovered at the Dark Canyon 15-22 State Com WCA 2H, 3H, 4H site due to a produced water line rupturing. Initial response activities were conducted by Chisholm Energy Operating, LLC, and included source elimination and site stabilization activities, which led to the excavation of the release area to 2 feet bgs. Figure 1 illustrates the vicinity and site location, Figures 2 and 3 illustrate the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Dark Canyon 15-22 State Com WCA 2H, 3H, 4H is located approximately 8.33 miles southwest of Carlsbad, New Mexico on state land at an elevation of approximately 3,332 feet above mean sea level (amsl).

Based upon New Mexico Office of the State Engineer data (Appendix B), depth to groundwater in the area is estimated to be 196 feet below grade surface (bgs). There are 9 known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 2/18/2019). The nearest significant watercourse is the Pecos River, located approximately 42,301 feet to the northeast. Figure 2 illustrates the site with a 100, 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of greater than 100 feet bgs. The site has been restored to meet the standards of Table 1 of 19.15.29.12 NMAC.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

3.0 Release Characterization Activities and Findings

On January 21, 2019, SMA personnel arrived on site in response to the release associated with Dark Canyon 15-22 State Com WCA 2H, 3H, 4H. SMA conducted confirmation sampling of the area affected by the release. A total of 3 samples locations (L2, L6, L11) were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

As summarized in Table 3 and Figure 3, results indicated that an area approximately 34,087.94 sq. ft had been impacted. All sample locations returned contamination levels below closure criteria

NMOCD was notified on March 12, 2019 that closure samples were expected to be collected in two (2) business days.

On March 14, 2019 SMA conducted confirmation sampling of the walls (L1-L10) and base (BH1-BH5) of the excavation.

A total of 15 samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

Laboratory samples were collected in accordance with the sampling protocol included in Appendix C. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix C).

Figure 3 shows the extent of the visually impacted are and sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix C. All Samples resulted in non-detectable concentrations. SMA recommends no further action for 2RP-5098.

4.0 Scope and Limitations

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this closure report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Austin Weyant at 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

J. Austin Weyant

Austin Weyant
Senior Scientist

Reviewed by:

Shawna Chubbuck

Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map
Figure 2: Surface Water Radius Map
Figure 3: Site and Sample Location Map

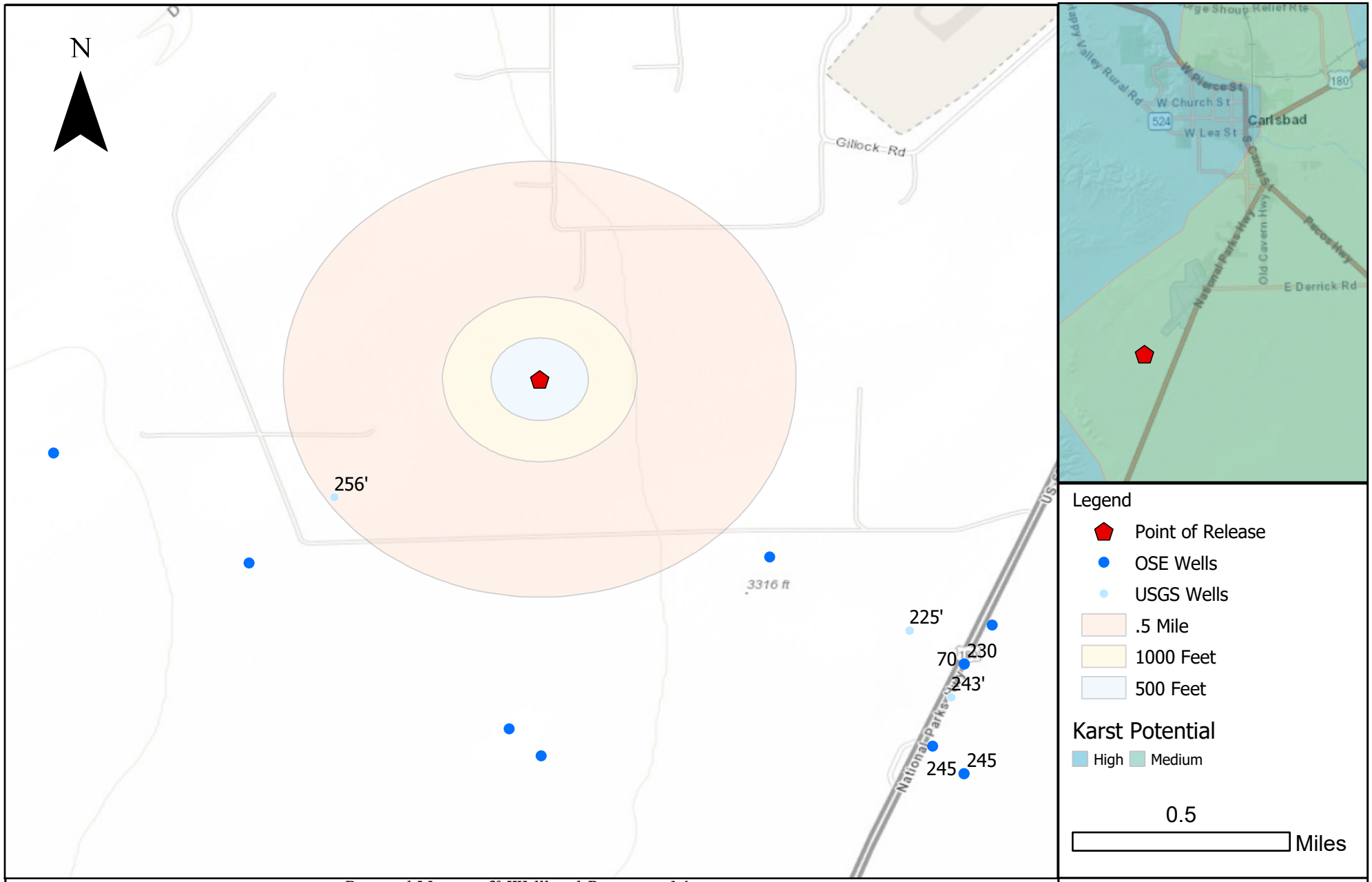
Tables:

Table 2: NMOCD Closure Criteria Justification
Table 3: Summary of Sample Results

Appendices:

Appendix A: Form C141
Appendix B: NMOSE Wells Report
Appendix C: Laboratory Analytical Reports
Appendix D: Photo Log

FIGURES



Regional Vicinity & Wellhead Protection Map
Dark Canyon 15-22 State Com WCA 3H- Chisolm Energy Operating, LLC
Sec 15 T23S R26E Eddy County , New Mexico

Figure 1

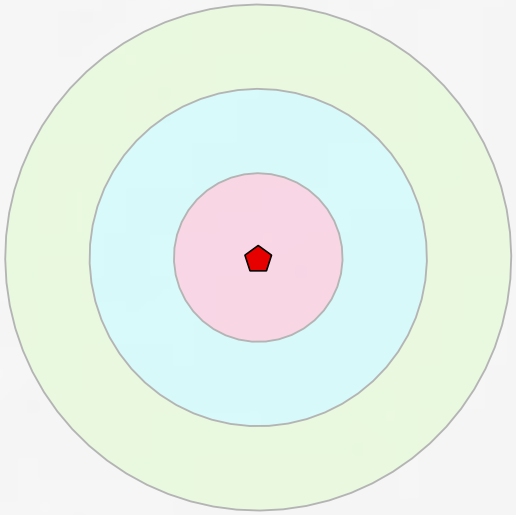
Revisions
By:_____ Date:_____ Descr:_____
By:_____ Date:_____ Descr:_____

Drawn Heather Patterson
Date 1/25/2019
Checked
Approved

201 South Halaguena Street
Carlsbad, New Mexico 88221
(575) 689-7040
Serving the Southwest & Rocky Mountains

Date Saved: 1/25/2019

\\CBO10\Projects\5-XTO 2019 MSA On Call Services (5E27960)\GIS\ARCGIS\MISC_MIT.aprx



Point of Release
Springs Seeps
Streams Canals
Rivers
NM Wetlands
Lakes Playas
FEMA Flood Zones 2011

Buffer Distance
100 Feet
200 Feet
300 Feet

N

350
Feet

Surface Water Map
Dark Canyon 15-22 State Com Wca 3H - Chisholm Energy Operating, LLC
Sec 15 T23S R26E Eddy County , New Mexico

Figure 2

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Date Saved: 1/25/2019

Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Heather Patterson
Date 1/25/2019
Checked
Approved

SMA

201 South Halaguena Street
Carlsbad, New Mexico 88221
(575) 689-7040
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Legend

- Sample Locations
- Prop. SW Sample Loc.
- Point of Release
- Excavated Area
- Pipelines
- Liner
- Excavation
- Release Area

N

0 62.5 125 250 Feet

Site and Sample Locations
Dark Canyon 15-22 State Com WCA 2H, 3H, 4H-Chisholm Energy
Sec 17 T23S R27E Eddy County , New Mexico

Figure 3

Revisions
By: _____ Date: _____ Descr: _____
By: _____ Date: _____ Descr: _____

Drawn *Lyndsey Bradshaw*
Date 4/2/2019
Checked _____
Approved _____

201 South Halaguena Street
Carlsbad, New Mexico 88221
(575) 689-7040
Serving the Southwest & Rocky Mountains

Date Saved: 4/1/2019

P:\5-XTO 2019 MSA On Call Services (5E27960)\GIS\ARCGIS\MISC_MIT.aprx

TABLES

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	110	NMOSE
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	9	NMOSE
Hortizontal Distance to Nearest Significant Watercourse (mi)	8	Pecos River

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		**Closure Criteria (units in mg/kg)**				
		Chloride *numerical limit or background, whichever is greater	**TPH**	**GRO + DRO**	**BTEX**	**Benzene**
< 50' BGS		600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'	X	20000	2500	1000	50	10
Surface Water	yes or no	**if yes, then**				
<300' from continuously flowing watercourse or other significant watercourse?	no	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	no					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	no					
<1000' from fresh water well or spring?	no					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	no					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	no					
<100' from wetland?	no					
within area overlying a subsurface mine	no					
within an unstable area?	no					
within a 100-year floodplain?	no					

Table 3:
Summary of Sample Results

Chisholm Energy Operating, LLC
Dark Canyon 15-22 State Com WCA 2H, 3H, 4H

Confirmation Sampling Event

Sample ID	Sample Date	Depth (feet bgs)	Action Taken	BTEX	Benzene	GRO	DRO	MRO	**Total TPH**	Cl-
				mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria				50	10	1000			2500	20,000
L1	3/14/2019	2	Excavated	<0.216	<0.024	<4.8	<10	<51	<65.8	<60
L2	1/21/2019	2	Excavated	<0.225	<0.025	<5.0	<9.9	<59	<64	<30
	3/14/2019	2	Excavated	<0.211	<0.023	<4.7	<9.8	<49	<63.5	<60
L3	3/14/2019	2	Excavated	<0.219	<0.024	<4.9	<10	<50	<64.9	<60
L4	3/14/2019	2	Excavated	<0.207	<0.023	<4.6	<9.9	<50	<64.5	<60
L5	3/14/2019	2	Excavated	<0.221	<0.025	<4.9	<9.8	<49	<63.7	<60
L6	1/21/2019		Excavated	<0.217	<0.024	<4.8	<9.8	<49	<63.6	<30
	3/14/2019	2	Excavated	<0.216	<0.024	<4.8	<10	<50	<64.8	<60
L7	3/14/2019	2	Excavated	<0.212	<0.024	<4.7	<9.9	<50	<64.6	<60
L8	3/14/2019	2	Excavated	<0.22	<0.024	<4.9	<10	<50	<64.9	<60
L9	3/14/2019	2	Excavated	<0.212	<0.024	<4.7	<10	<51	<65.7	<60
L10	3/14/2019	2	Excavated	<0.219	<0.024	<4.9	<9.9	<50	<64.8	<60
L11	1/21/2019	2	Excavated	<0.217	<0.024	<4.8	<9.7	<48	<62.5	<30
BH1	3/14/2019	2	Excavated	<0.210	<0.023	<4.7	<9.8	<49	<63.5	<60
BH2	3/14/2019	2	Excavated	<0.210	<0.023	<4.7	<9.9	<50	<64.6	<60
BH3	3/14/2019	2	Excavated	<0.211	<0.023	<4.7	<10	<50	<64.7	<60
BH4	3/14/2019	2	Excavated	<0.211	<0.023	<4.7	<10	<50	<64.7	<60
BH5	3/14/2019	2	Excavated	<0.219	<0.024	<4.9	<9.7	<49	<63.6	<60

"--" = Not Analyzed

APPENDIX A
FORM C141

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAB1834549736
District RP	2RP-5098
Facility ID	
Application ID	pAB1834549205

Release Notification

Responsible Party

Responsible Party CHISHOLM ENERGY OPERATING, LLC	OGRID 372137
Contact Name TIM GREEN	Contact Telephone 432-413-9747
Contact email tgreen@chisholmenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 801 CHERRY STREET, SUITE 1200-UNIT 20, FORT WORTH, TX 76102	

Location of Release Source

Latitude 32.31127 Longitude -104.28753
(NAD 83 in decimal degrees to 5 decimal places)

Site Name DARK CANYON 15-22 STATE COM WCA 2H, 3H, 4H	Site Type PAD SITE/ROAD (OFF PAD LOCATION)
Date Release Discovered 11/13/2018	API# *(if applicable)* 30-015-44538/30-015-44539/30-015-44647

Unit Letter	Section	Township	Range	County
D	15	23S	26E	EDDY

Surface Owner: [X] State [ ] Federal [ ] Tribal [ ] Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

[ ] Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
[X] Produced Water	Volume Released (bbls) 120	Volume Recovered (bbls) 20
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	[X] Yes [ ] No
[ ] Condensate	Volume Released (bbls)	Volume Recovered (bbls)
[ ] Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
[ ] Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Produced water line washout; all water released off pad site location in 4 areas.
Area 1-200' x 6'
Area 2-250' x 6'
Area 3- 300' x 6'
Area 4-350' x 1.5'
Calculated @ 2" deep w/75% porosity = 120 bbls

State of New Mexico
Oil Conservation Division

Incident ID	NAB1834549736
District RP	2RP-5098
Facility ID	
Application ID	pAB1834549205

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Water line washout; amount of water released constitutes a major release

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Yes, Paul Martinez left a message for Mike Bratcher at 2:09 pm on 11/13/2018

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: JENNIFER ELROD Title: SR. REGULATORY ANALYST

Signature: Jennifer Elrod Date: 11/29/18

email: jelrod@chisholmenergy.com Telephone: 817-953-3728

OCD Only

Received by: Amalia Portamante Date: 12/11/2018

State of New Mexico
Oil Conservation Division

Incident ID	NAB1834549736
District RP	2RP-5098
Facility ID	
Application ID	Pab1834549205

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: JENNIFER ELROD Title: SR. REGULATORY ANALYST

Signature: Jennifer Elrod Date: 04/05/2019

Email: JELROD@CHISHOLMENERGY.COM Telephone: 817-953-3728

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B
NMOSE WELLS REPORT

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	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 01140	C	ED	1	3	3	15	23S	26E	566980	3573870*	1294	325		
C 00247	C	ED	4	2	4	15	23S	26E	568406	3574119*	1695	315	230	85
C 01639	C	ED	4	2	4	15	23S	26E	568406	3574119*	1695	300	70	230
C 01015	C	ED	4	4	4	15	23S	26E	568408	3573714*	1971	318	245	73
C 03238	C	ED	4	4	4	15	23S	26E	568408	3573714*	1971	323	245	78
C 02264	CUB	ED			4	03	23S	26E	568065	3577254*	2317	260		
C 02382	C	ED			4	03	23S	26E	568065	3577254*	2317	288	248	40
C 02393	C	ED			4	03	23S	26E	568065	3577254*	2317	290	245	45
C 01022	C	ED	4	3	2	22	23S	26E	568005	3572894*	2452	121	90	31

Average Depth to Water: **196 feet**

Minimum Depth: **70 feet**

Maximum Depth: **248 feet**

Record Count: 9

UTMNAD83 Radius Search (in meters):

Easting (X): 567069 **Northing (Y):** 3575161.4 **Radius:** 2500

***UTM location was derived from PLSS - see Help**

APPENDIX C

LABORATORY ANALYTICAL REPORTS

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-001
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	3/28/2019 3:22:21 PM	43933
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/28/2019 9:59:59 PM	43862
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/28/2019 9:59:59 PM	43862
Surr: DNOP	82.1	70-130		%Rec	1	3/28/2019 9:59:59 PM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/26/2019 6:28:04 PM	43839
Surr: BFB	93.0	73.8-119		%Rec	1	3/26/2019 6:28:04 PM	43839
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	3/26/2019 6:28:04 PM	43839
Toluene	ND	0.048		mg/Kg	1	3/26/2019 6:28:04 PM	43839
Ethylbenzene	ND	0.048		mg/Kg	1	3/26/2019 6:28:04 PM	43839
Xylenes, Total	ND	0.096		mg/Kg	1	3/26/2019 6:28:04 PM	43839
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	3/26/2019 6:28:04 PM	43839

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-002
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	3/28/2019 3:34:45 PM	43933
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/28/2019 11:13:37 PM	43862
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/28/2019 11:13:37 PM	43862
Surr: DNOP	99.6	70-130		%Rec	1	3/28/2019 11:13:37 PM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/26/2019 6:51:17 PM	43839
Surr: BFB	92.0	73.8-119		%Rec	1	3/26/2019 6:51:17 PM	43839
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	3/26/2019 6:51:17 PM	43839
Toluene	ND	0.047		mg/Kg	1	3/26/2019 6:51:17 PM	43839
Ethylbenzene	ND	0.047		mg/Kg	1	3/26/2019 6:51:17 PM	43839
Xylenes, Total	ND	0.094		mg/Kg	1	3/26/2019 6:51:17 PM	43839
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	3/26/2019 6:51:17 PM	43839

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-003
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	3/28/2019 4:11:58 PM	43933
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/28/2019 11:38:04 PM	43862
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/28/2019 11:38:04 PM	43862
Surr: DNOP	82.6	70-130		%Rec	1	3/28/2019 11:38:04 PM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/26/2019 7:14:34 PM	43839
Surr: BFB	89.6	73.8-119		%Rec	1	3/26/2019 7:14:34 PM	43839
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	3/26/2019 7:14:34 PM	43839
Toluene	ND	0.049		mg/Kg	1	3/26/2019 7:14:34 PM	43839
Ethylbenzene	ND	0.049		mg/Kg	1	3/26/2019 7:14:34 PM	43839
Xylenes, Total	ND	0.097		mg/Kg	1	3/26/2019 7:14:34 PM	43839
Surr: 4-Bromofluorobenzene	92.0	80-120		%Rec	1	3/26/2019 7:14:34 PM	43839

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-004
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	3/28/2019 4:24:23 PM	43933
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/29/2019 12:02:30 AM	43862
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/29/2019 12:02:30 AM	43862
Surr: DNOP	102	70-130		%Rec	1	3/29/2019 12:02:30 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/26/2019 7:37:54 PM	43839
Surr: BFB	93.3	73.8-119		%Rec	1	3/26/2019 7:37:54 PM	43839
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	3/26/2019 7:37:54 PM	43839
Toluene	ND	0.046		mg/Kg	1	3/26/2019 7:37:54 PM	43839
Ethylbenzene	ND	0.046		mg/Kg	1	3/26/2019 7:37:54 PM	43839
Xylenes, Total	ND	0.092		mg/Kg	1	3/26/2019 7:37:54 PM	43839
Surr: 4-Bromofluorobenzene	97.0	80-120		%Rec	1	3/26/2019 7:37:54 PM	43839

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-005
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	3/28/2019 4:36:48 PM	43933
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/29/2019 12:26:56 AM	43862
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/29/2019 12:26:56 AM	43862
Surr: DNOP	94.1	70-130		%Rec	1	3/29/2019 12:26:56 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/26/2019 8:01:20 PM	43840
Surr: BFB	92.4	73.8-119		%Rec	1	3/26/2019 8:01:20 PM	43840
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	3/26/2019 8:01:20 PM	43840
Toluene	ND	0.049		mg/Kg	1	3/26/2019 8:01:20 PM	43840
Ethylbenzene	ND	0.049		mg/Kg	1	3/26/2019 8:01:20 PM	43840
Xylenes, Total	ND	0.098		mg/Kg	1	3/26/2019 8:01:20 PM	43840
Surr: 4-Bromofluorobenzene	95.7	80-120		%Rec	1	3/26/2019 8:01:20 PM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L6
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-006
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	3/28/2019 4:49:12 PM	43933
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/29/2019 12:51:23 AM	43862
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/29/2019 12:51:23 AM	43862
Surr: DNOP	90.2	70-130		%Rec	1	3/29/2019 12:51:23 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/26/2019 9:12:10 PM	43840
Surr: BFB	91.5	73.8-119		%Rec	1	3/26/2019 9:12:10 PM	43840
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	3/26/2019 9:12:10 PM	43840
Toluene	ND	0.048		mg/Kg	1	3/26/2019 9:12:10 PM	43840
Ethylbenzene	ND	0.048		mg/Kg	1	3/26/2019 9:12:10 PM	43840
Xylenes, Total	ND	0.096		mg/Kg	1	3/26/2019 9:12:10 PM	43840
Surr: 4-Bromofluorobenzene	95.0	80-120		%Rec	1	3/26/2019 9:12:10 PM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L7
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-007
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	3/28/2019 5:01:37 PM	43933
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/29/2019 1:15:44 AM	43862
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/29/2019 1:15:44 AM	43862
Surr: DNOP	120	70-130		%Rec	1	3/29/2019 1:15:44 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/26/2019 10:22:39 PM	43840
Surr: BFB	91.4	73.8-119		%Rec	1	3/26/2019 10:22:39 PM	43840
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	3/26/2019 10:22:39 PM	43840
Toluene	ND	0.047		mg/Kg	1	3/26/2019 10:22:39 PM	43840
Ethylbenzene	ND	0.047		mg/Kg	1	3/26/2019 10:22:39 PM	43840
Xylenes, Total	ND	0.094		mg/Kg	1	3/26/2019 10:22:39 PM	43840
Surr: 4-Bromofluorobenzene	94.8	80-120		%Rec	1	3/26/2019 10:22:39 PM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH1
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-008 **Matrix:** SOIL **Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	3/28/2019 5:14:02 PM	43933
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/29/2019 1:40:05 AM	43862
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/29/2019 1:40:05 AM	43862
Surr: DNOP	99.4	70-130		%Rec	1	3/29/2019 1:40:05 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/26/2019 10:46:14 PM	43840
Surr: BFB	90.4	73.8-119		%Rec	1	3/26/2019 10:46:14 PM	43840
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	3/26/2019 10:46:14 PM	43840
Toluene	ND	0.047		mg/Kg	1	3/26/2019 10:46:14 PM	43840
Ethylbenzene	ND	0.047		mg/Kg	1	3/26/2019 10:46:14 PM	43840
Xylenes, Total	ND	0.093		mg/Kg	1	3/26/2019 10:46:14 PM	43840
Surr: 4-Bromofluorobenzene	94.1	80-120		%Rec	1	3/26/2019 10:46:14 PM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-009 **Matrix:** SOIL **Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	3/28/2019 5:51:15 PM	43959
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/29/2019 2:04:21 AM	43862
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/29/2019 2:04:21 AM	43862
Surr: DNOP	106	70-130		%Rec	1	3/29/2019 2:04:21 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/26/2019 11:09:44 PM	43840
Surr: BFB	90.9	73.8-119		%Rec	1	3/26/2019 11:09:44 PM	43840
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	3/26/2019 11:09:44 PM	43840
Toluene	ND	0.047		mg/Kg	1	3/26/2019 11:09:44 PM	43840
Ethylbenzene	ND	0.047		mg/Kg	1	3/26/2019 11:09:44 PM	43840
Xylenes, Total	ND	0.093		mg/Kg	1	3/26/2019 11:09:44 PM	43840
Surr: 4-Bromofluorobenzene	94.7	80-120		%Rec	1	3/26/2019 11:09:44 PM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-010 **Matrix:** SOIL **Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	3/28/2019 6:53:18 PM	43959
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/29/2019 2:28:34 AM	43862
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/29/2019 2:28:34 AM	43862
Surr: DNOP	115	70-130		%Rec	1	3/29/2019 2:28:34 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/26/2019 11:33:04 PM	43840
Surr: BFB	91.7	73.8-119		%Rec	1	3/26/2019 11:33:04 PM	43840
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	3/26/2019 11:33:04 PM	43840
Toluene	ND	0.047		mg/Kg	1	3/26/2019 11:33:04 PM	43840
Ethylbenzene	ND	0.047		mg/Kg	1	3/26/2019 11:33:04 PM	43840
Xylenes, Total	ND	0.094		mg/Kg	1	3/26/2019 11:33:04 PM	43840
Surr: 4-Bromofluorobenzene	94.6	80-120		%Rec	1	3/26/2019 11:33:04 PM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH4
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-011 **Matrix:** SOIL **Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	3/28/2019 7:05:43 PM	43959
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/29/2019 2:52:46 AM	43862
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/29/2019 2:52:46 AM	43862
Surr: DNOP	89.2	70-130		%Rec	1	3/29/2019 2:52:46 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/27/2019 1:29:30 AM	43840
Surr: BFB	89.0	73.8-119		%Rec	1	3/27/2019 1:29:30 AM	43840
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023		mg/Kg	1	3/27/2019 1:29:30 AM	43840
Toluene	ND	0.047		mg/Kg	1	3/27/2019 1:29:30 AM	43840
Ethylbenzene	ND	0.047		mg/Kg	1	3/27/2019 1:29:30 AM	43840
Xylenes, Total	ND	0.094		mg/Kg	1	3/27/2019 1:29:30 AM	43840
Surr: 4-Bromofluorobenzene	92.4	80-120		%Rec	1	3/27/2019 1:29:30 AM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH5
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-012
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	3/28/2019 7:18:07 PM	43959
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/29/2019 3:16:55 AM	43862
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/29/2019 3:16:55 AM	43862
Surr: DNOP	92.3	70-130		%Rec	1	3/29/2019 3:16:55 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/27/2019 1:52:47 AM	43840
Surr: BFB	91.7	73.8-119		%Rec	1	3/27/2019 1:52:47 AM	43840
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	3/27/2019 1:52:47 AM	43840
Toluene	ND	0.049		mg/Kg	1	3/27/2019 1:52:47 AM	43840
Ethylbenzene	ND	0.049		mg/Kg	1	3/27/2019 1:52:47 AM	43840
Xylenes, Total	ND	0.097		mg/Kg	1	3/27/2019 1:52:47 AM	43840
Surr: 4-Bromofluorobenzene	93.9	80-120		%Rec	1	3/27/2019 1:52:47 AM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L8
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-013
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	3/28/2019 7:30:31 PM	43959
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/29/2019 3:41:01 AM	43862
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/29/2019 3:41:01 AM	43862
Surr: DNOP	99.3	70-130		%Rec	1	3/29/2019 3:41:01 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/27/2019 2:16:13 AM	43840
Surr: BFB	90.5	73.8-119		%Rec	1	3/27/2019 2:16:13 AM	43840
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	3/27/2019 2:16:13 AM	43840
Toluene	ND	0.049		mg/Kg	1	3/27/2019 2:16:13 AM	43840
Ethylbenzene	ND	0.049		mg/Kg	1	3/27/2019 2:16:13 AM	43840
Xylenes, Total	ND	0.098		mg/Kg	1	3/27/2019 2:16:13 AM	43840
Surr: 4-Bromofluorobenzene	93.1	80-120		%Rec	1	3/27/2019 2:16:13 AM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L9
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-014
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	3/28/2019 7:42:56 PM	43959
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/29/2019 4:05:03 AM	43862
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/29/2019 4:05:03 AM	43862
Surr: DNOP	96.2	70-130		%Rec	1	3/29/2019 4:05:03 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/27/2019 2:39:45 AM	43840
Surr: BFB	91.2	73.8-119		%Rec	1	3/27/2019 2:39:45 AM	43840
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	3/27/2019 2:39:45 AM	43840
Toluene	ND	0.047		mg/Kg	1	3/27/2019 2:39:45 AM	43840
Ethylbenzene	ND	0.047		mg/Kg	1	3/27/2019 2:39:45 AM	43840
Xylenes, Total	ND	0.094		mg/Kg	1	3/27/2019 2:39:45 AM	43840
Surr: 4-Bromofluorobenzene	93.6	80-120		%Rec	1	3/27/2019 2:39:45 AM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L10
Project: Dark Canyon
Collection Date: 3/14/2019
Lab ID: 1903A84-015
Matrix: SOIL
Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	3/28/2019 7:55:20 PM	43959
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/29/2019 4:29:00 AM	43862
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/29/2019 4:29:00 AM	43862
Surr: DNOP	94.9	70-130		%Rec	1	3/29/2019 4:29:00 AM	43862
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/27/2019 3:03:15 AM	43840
Surr: BFB	91.9	73.8-119		%Rec	1	3/27/2019 3:03:15 AM	43840
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	3/27/2019 3:03:15 AM	43840
Toluene	ND	0.049		mg/Kg	1	3/27/2019 3:03:15 AM	43840
Ethylbenzene	ND	0.049		mg/Kg	1	3/27/2019 3:03:15 AM	43840
Xylenes, Total	ND	0.097		mg/Kg	1	3/27/2019 3:03:15 AM	43840
Surr: 4-Bromofluorobenzene	94.6	80-120		%Rec	1	3/27/2019 3:03:15 AM	43840

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

APPENDIX D

PHOTO LOG

Near L11 Facing West

Near L10 Facing West

Near L2 Facing East

Near L1 Northeast

Near L3 Facing Northeast

Near L4 Facing Northwest

Near BH2 Facing Southeast