

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	
District RP	NRH2003737979
Facility ID	
Application ID	

2020-01-06 1003 Pipeline Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	45 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

Form C-141

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State of New Mexico
Oil Conservation Division

Incident ID	
District RP	NRH2003737979
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Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data (Not applicable - summarized in pictures and tables)
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs (Not applicable)
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

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

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: Jon E. Fields

Title: Director, Field Environmental

Signature: _____

Date: 5/12/2020

email: jefields@eprod.com

Telephone: 713-381-6684

OCD Only

Received by: _____

Date: _____

Form C-141

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State of New Mexico
Oil Conservation Division

Incident ID	
District RP	NRH2003737979
Facility ID	
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Closure: 2020-01-06 1003 Pipeline

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: Jon E. Fields

Title: Director, Field Environmental

Signature: 

Date: 5/12/2020

email: jefields@eprod.com

Telephone: 713-381-6684

OCD Only

Received by: Cristina Eads

Date: 05/13/2020

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: 07/21/2020

Printed Name: Cristina Eads

Title: Environmental Specialist



Souder, Miller & Associates ♦ 201 S. Halagueno St. ♦ Carlsbad, NM 88220
(575) 689-7040

May 7, 2020

EMNRD—Oil Conservation Division
5200 Oakland Avenue NE, Suite 100
Albuquerque, NM 87113
Attn.: Ms. Christina Eads

**RE: REVISED CLOSURE REPORT FOR THE 1003 PIPELINE RELEASE
(NRH2003737979), IN LEA COUNTY, NEW MEXICO**

Dear Ms. Eads:

Souder, Miller & Associates (SMA) is submitting this revised closure report to EMNRD—Oil Conservation Division, on behalf of Enterprise Field Services, LLC (Enterprise) clarifying the details for sample S7.

Sample S7 was collected on January 29, 2020 during initial sampling activities at a depth of approximately 4.3 feet below grade surface (bgs). The location of sample S7 can be found on Figure 3C. At the time of collection, the sample was marked as “in-situ.”

During excavation activities, the area where sample S7 was collected, was excavated to approximately six (6) feet bgs. The excavated area of S7 was collected during confirmation sampling as BH1. Sample BH1 meets NMOCD closure criteria.

SMA has revised the closure report as follows:

- Table 3A was reformatted with a header clarifying “Initial and Background Samples” and sample S7 was relabeled from “In-Situ” to “Excavate.”
- In Section 3.0, paragraph 3, additional language has been added regarding the excavation and location of sample S7.

Souder, Miller and Associates appreciates the opportunity to provide clarification regarding the 1003 pipeline release. If you have any questions or comments concerning this report, please feel free myself or Shawna Chubbuck at 505.325.7535.

Sincerely,
Souder, Miller & Associates

Ashley Maxwell
Project Scientist

Shawna Chubbuck
Senior Scientist



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

May 7, 2020

#5E28981-BG1

NMOCD District 2
Mr. Robert Hamlet
811 S. First St.
Artesia, New Mexico 88210

SUBJECT: Remediation Closure Report for the 1003 Pipeline Release Incident Number (NRH2003737979), in Eddy County, New Mexico

Dear Mr. Hamlet:

On behalf of Enterprise Field Services, LLC (Enterprise), 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 1003 Pipeline site. The site is in Unit I, Section 26, Township 24S, Range 28E, Eddy County, New Mexico, on privately-owned 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	1003 Pipeline	Company	Enterprise Field Services LLC
API Number	N/A	Location	32.1864918, -104.0516164
Incident Number	NRH2003737979		
Estimated Date of Release	1/6/2020	Date Reported to NMOCD	2/6/2020
Land Owner	Private	Reported To	NMOCD District 2
Source of Release	Internal corrosion of pipeline		
Released Volume	Condensate: 1 bbl Natural Gas: 128.56 MCF	Released Material	Natural Gas & Condensate
Recovered Volume	Condensate: 0 bbl Natural Gas: 0 MCF	Net Release	Condensate: 1 bbl Natural Gas: 128.56 MCF
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	1/29/2020, 2/10/2020, 2/18/2020, 2/21/2020		

1.0 Background

On January 6, 2020, a release was discovered at the 1003 Pipeline due to suspected internal corrosion leading to the development of a 1/16-inch diameter hole in a buried 6-inch gas pipeline. To facilitate repairs, 128.08 MCF of gas was released as part of a controlled blowdown. This caused pipeline fluids to collect and pool at the surface and flow for approximately 440 feet down a two-track dirt road. Initial response activities were conducted by NMR Pipeline, and included exposing the pipeline, isolating the leak, and installing a clamp. Approximately 490 cubic yards of contaminated soil were also removed. Figure 1 illustrates the vicinity and site location; Figure 2 illustrates the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The 1003 Pipeline is located approximately 2.88 miles southeast of Malaga, New Mexico on privately-owned land at an elevation of approximately 2,938 feet above mean sea level (amsl).

Based upon New Mexico Office of the State Engineer and United States Geological Survey online water well database (Appendix B), depth to groundwater in the area is estimated to be 45 feet below grade surface (bgs). There are two known water sources within ½-mile of the location. The nearest significant watercourse is an irrigation ditch, located approximately 680 feet to the southwest. Figure 2 illustrates the site with 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 less than 50 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC. However, due to naturally high chloride concentrations (see Table 3a; sample BG4 at 4 feet), the closure criteria for chloride has been adjusted.

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

3.0 Release Characterization and Remediation Activities

On January 29, 2020, SMA personnel arrived on site in response to the release associated with the 1003 Pipeline. SMA performed site delineation activities by collecting soil samples around the release site and throughout the visibly stained area. Soil samples were field-screened for chloride using an electrical conductivity (EC) meter (results are converted to PPM using the calibration curve provided Appendix D), for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp, and for hydrocarbon impacts using a Dextsil® PetroFLAG TPH Analyzer.

A total of nine (9) sample locations (S1-S7 and BG1-BG2) were field-screened for chlorides and total petroleum hydrocarbons (TPH), to depths up to four (4) feet four (4) inches bgs. In addition, three (3) samples (S7, S8, and S9) 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. Three (3) samples (BG1, BG3, and BG4) were also collected for laboratory analysis for total chloride using EPA Method 300.0 in order to establish local shallow background levels of chloride.

As summarized in Table 3a and 3b, results indicated that an area 30 feet by 75 feet by 4.5 feet deep had been impacted in the area surrounding the release point at the pipeline. Pipeline fluids pooled on the surface and then flowed down a two-track dirt road further impacting an area of approximately 5 feet wide

1003 Pipeline Remediation Closure Report
March 23, 2020

(Incident #: NRH2003737979)

Page 3 of 4

by 440 feet long by 4 feet deep in addition to the area previously described. As depicted in Table 3A, the area of sample S7 required excavation. Figure 3C depicts initial sample and field screening locations.

On February 10, 2020, SMA conducted confirmation sampling of the 30 feet by 75 feet by 4.5 feet excavation immediately surrounding the release point at the pipeline. SMA collected a total of eight confirmation samples from this area which consisted of five-point composite base samples (BH1-BH3) as well as composite samples of the sidewalls (SW1-SW5). As summarized in Table 3a, samples BH1 and BH2 exceeded the closure criteria for TPH. SMA recommended further excavation in these areas. Background samples BG3 and BG4 were also collected on this date.

On February 18, 2020, SMA conducted confirmation sampling of the 440 feet by 5 feet by 4 feet deep trench that was excavated where pipeline fluids flowed down the dirt road. A total of four composite samples (COMP1-COMP4) were collected, each consisting of 3-point base and sidewall.

On February 21, 2020, SMA returned to the site to re-collect samples BH1 and BH2 after the recommended further excavation was complete (6 feet deep).

A total of 12 confirmation samples were collected for laboratory analysis using the methods listed above. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico, and Envirotech Analytical Laboratories in Farmington, New Mexico (Appendix C).

Figures 3a, 3b, and 3c show the extent of the excavation and sample locations. All laboratory results are summarized in Table 3a. All field screen results are summarized in Table 3b. Laboratory reports are included in Appendix C.

Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at Lea Land LLC near Carlsbad, NM, an NMOCD permitted disposal facility.

5.0 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 Ashley Maxwell 505 320 9241 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES



Ashley Maxwell
Project Scientist

Reviewed by:



Shawna Chubbuck
Senior Scientist

1003 Pipeline Remediation Closure Report
March 23, 2020

(Incident #: NRH2003737979)

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ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map
Figure 2: Surface Water Radius Map
Figure 3a: Site and Final Sample Location Map (Full Extent)
Figure 3b: Site and Final Sample Location Map (Zoomed In)
Figure 3c: Site and Delineation Sample Map

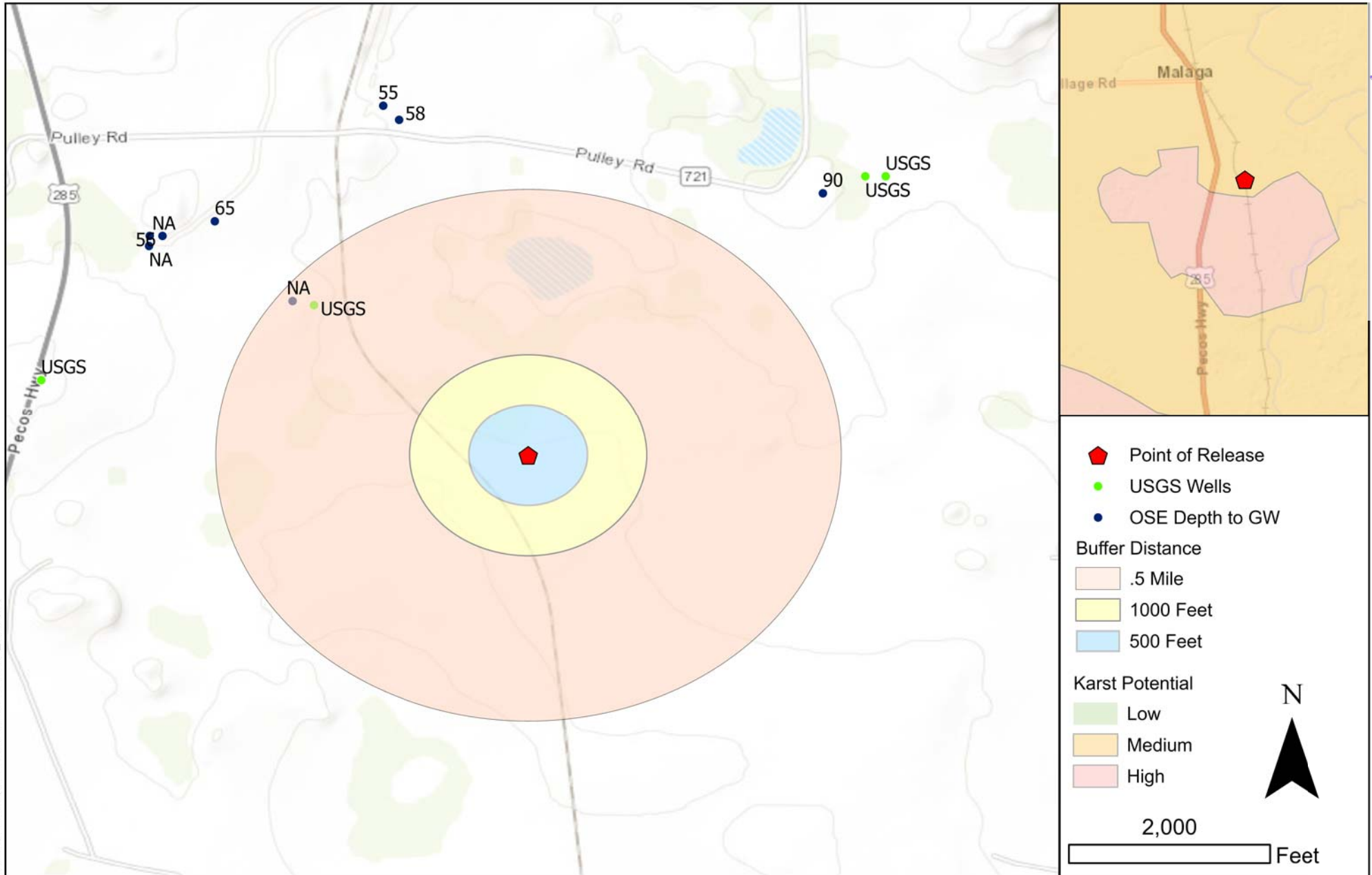
Tables:

Table 2: NMOCD Closure Criteria Justification
Table 3a: Summary of Laboratory Results
Table 3b: Summary of Field Screens

Appendices:

Appendix A: Form C141
Appendix B: NMOSE Wells Report
Appendix C: Laboratory Analytical Reports
Appendix D: EC Meter Calibration Curve
Appendix E: Photolog

FIGURES



Regional Vicinity & Wellhead Protection Map
1003- Enterprise Field Services LLC
Sec 26 T24S R28E Eddy County, New Mexico

Figure 1

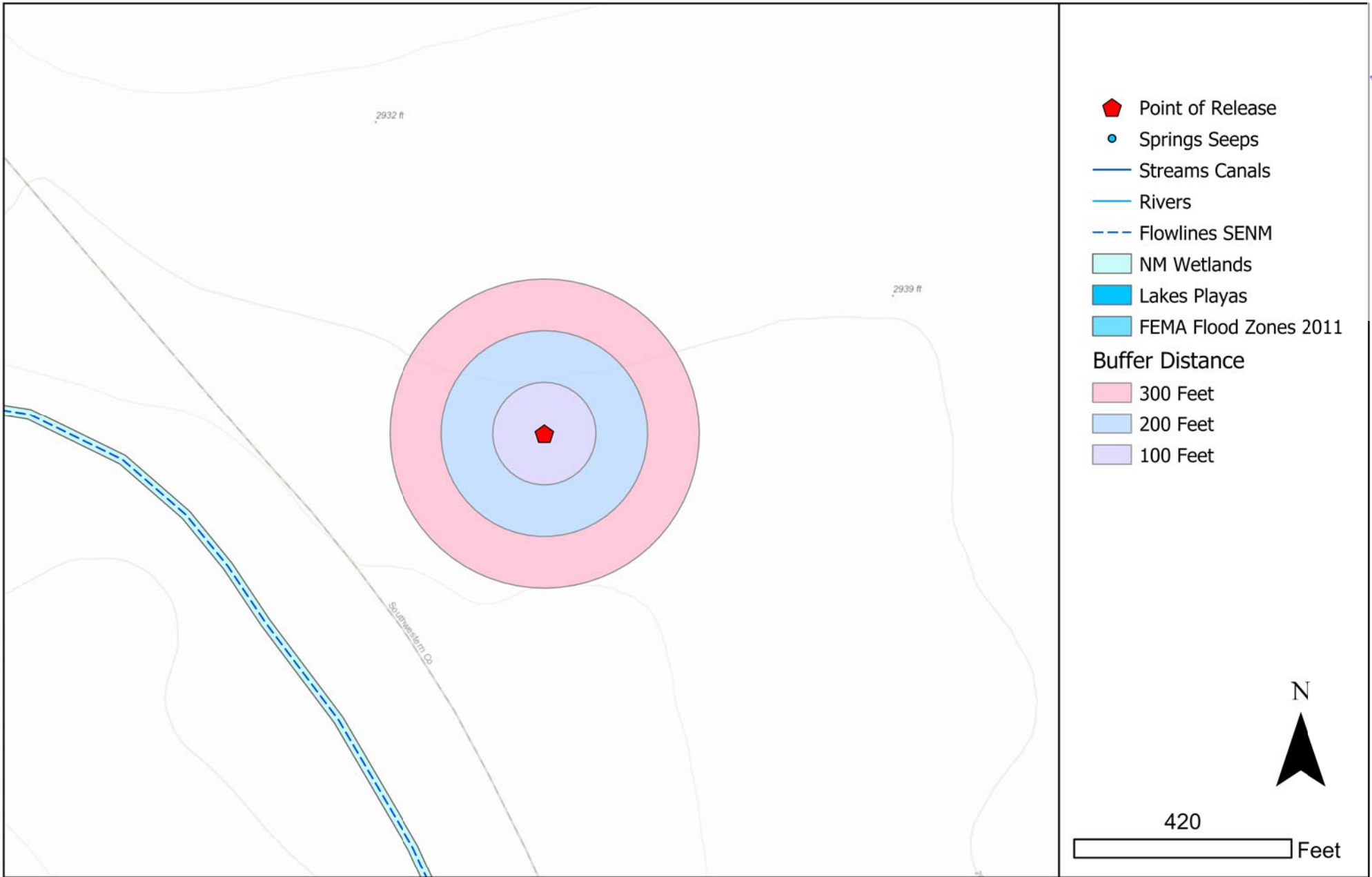
Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

Copyright 2019 Souder, Miller & Associates - All Rights Reserved

Drawn	Brent A. Jackson
Date	1/30/2020
Checked	_____
Approved	_____



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Carlsbad, New Mexico 88221
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Surface Water Protection Map
1003- Enterprise Field Services LLC
Sec26 T24S R8E Eddy County, New Mexico

Figure 2

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____
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Drawn	Brent A. Jackson
Date	1/30/2020
Checked	_____
Approved	_____



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- Legend**
- Point of Release
 - Pipelines
 - Excavation
 - Excavation- 6ft
 - Delineation Sample Locations

Site and Delineation Sample Location Map
1003- Enterprise Field Services LLC
Sec 26 T24S R28E Eddy County, New Mexico

Figure 3c

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____
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Drawn	Brent Jackson
Date	3/24/2020
Checked	_____
Approved	_____



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Legend

- Point of Release
- Pipelines
- Excavation
- Excavation- 6ft
- Sample Locations

N

0 47 94 188 Feet

Site and Final Sample Location Map
1003- Enterprise Field Services LLC
Sec 26 T24S R28E Eddy County, New Mexico

Figure 3a

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____
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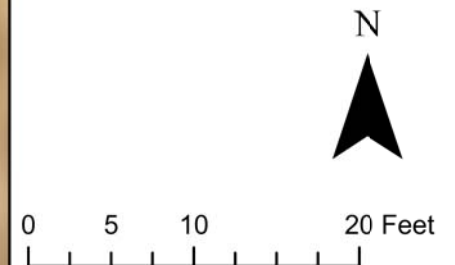
Drawn	Brent Jackson
Date	3/23/2020
Checked	_____
Approved	_____



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- Legend**
- Point of Release
 - Pipelines
 - Excavation
 - Excavation- 6ft
 - Sample Locations



Site and Final Sample Location Map
1003- Enterprise Field Services LLC
Sec 26 T24S R28E Eddy County, New Mexico

Figure 3b

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____
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Drawn	Brent Jackson
Date	3/23/2020
Checked	_____
Approved	_____



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TABLES

Table 2:
NMOCD Closure CriteriaEnterprise Field Services, LLC
1003 Pipeline

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	45	USGS water well records
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	2335 & 2500	USGS & NMOSE
Horizontal Distance to Nearest Significant Watercourse (ft)	680	Irrigation Ditch- USGS National Map Viewer

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	X	600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'		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 3a:
Summary of Laboratory Results

Enterprise Field Services LLC
1003 Pipeline

Sample ID	Sample Date	Depth (feet bgs)	Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria				50	10				100	2600
Initial & Background Sampling										
BG-1	1/29/2020	0.3	In-situ	-	-	-	-	-	-	150
BG-3	2/10/2020	4	In-situ	-	-	-	-	-	-	170
BG-4	2/10/2020	4	In-situ	-	-	-	-	-	-	2600
S7	1/29/2020	4.3	Excavate	304.3	9.3	2400	220	<49	2620	2400
S8		3.5	In-situ	<0.212	<0.024	<4.7	12	<46	12	1700
S9		3.5	In-situ	<0.212	<0.024	<4.7	<9.7	<49	<63.4	840
Closure Samples										
BH1	2/10/2020	4	Excavate	0.24	<0.049	51	96	<50	147	2100
	2/21/2020	6	In-situ	<0.220	<0.024	<4.9	<9.1	<46	60	1300
BH2	2/10/2020	4	Excavate	<0.447	<0.049	17	190	<45	207	280
	2/21/2020	6	In-situ	<0.216	<0.024	<4.8	<8.5	<43	56.3	380
BH3	2/10/2020	4	In-situ	<0.224	<0.025	<5.0	<10	<50	<65	1500
SW1		0-4	In-situ	<0.224	<0.025	<5.0	<9.3	<47	<61.3	1300
SW2		0-4	In-situ	<0.220	<0.024	<4.9	50	<48	50	980
SW3		0-4	In-situ	<0.224	<0.025	<5.0	68	<49	68	2000
SW4		0-4	In-situ	<0.220	<0.024	<4.9	20	<48	20	420
SW5		0-4	In-situ	<0.225	<0.025	<5.0	<9.7	<49	<63.7	97
COMP 1	2/18/2020	0-4	In-situ	<0.1	<0.025	<20.0	<25.0	<50.0	<95	1410
COMP 2		0-4	In-situ	<0.1	<0.025	<20.0	<25.0	<50.0	<95	1890
COMP 3		0-4	In-situ	<0.1	<0.025	<20.0	<25.0	<50.0	<95	1250
COMP 4		0-4	In-situ	<0.1	<0.025	<20.0	<25.0	<50.0	<95	1100

"--" = Not Analyzed

Table 3b:
Summary of Field Screens

Enterprise Field Services LLC
1003 Pipeline

Sample ID	Sample Date	Depth (feet bgs)	Collection Time	EC mg/cm	Temp (°C)	Cl- PPM	PID Reading	Petroflag Reading
NMOCD Closure Criteria						2600		
BG-1	1/29/2020	0.3	9:45	0.24	15.5	485	-	-
BG-2		0.5	12:50	0.47	19.3	653	-	-
S1		Under Pipeline	9:50	10.18	16.9	14,771	1069	>9,999
S2		0.5	10:00	2.18	16.9	3,225	1,355	5,662
S3		1.5	11:45	0.29	18.2	441	25.5	-
S4		1.5	12:00	0.74	17.7	1,112	39.6	-
S5		1	12:09	0.8	17.3	1,216	4.9	-
S6		3	1:25	1.96	19.2	2,808	-	-
S7		4.3	1:32	3.3	19.1	4,746	-	-

"--" = Not Analyzed

APPENDIX A

FORM C141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
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State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
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Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRH2003737979
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	Enterprise Field Services LLC	OGRID	241602
Contact Name	Alena Miro	Contact Telephone	575-628-6802
Contact email	ammiro@eprod.com	Incident # (assigned by OCD)	
Contact mailing address	PO Box 4324, Houston, TX 77210		

Location of Release Source

Latitude N32.186400 Longitude W -104.051642
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	1003 Pipeline	Site Type	Pipeline ROW
Date Release Discovered	1/6/2020	API# (if applicable)	N/A

Unit Letter	Section	Township	Range	County
I	26	24S	28E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private : N/A

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 1 bbl	Volume Recovered (bbls) 0 bbls
<input checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf) 128.56 MCF	Volume Recovered (Mcf) 0 MCF
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A pipeline leak estimated at 0.48 MSCF of gas occurred due to suspected internal corrosion and 128.08 MSCF of gas was released due to a controlled pipeline blowdown to facilitate repairs.

Form C-141

Page 2


State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: N/A	
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: <u>Jon E. Fields</u>	Title: <u>Director, Field Environmental</u>
Signature: 	Date: <u>1/8/2020</u>
email: <u>jefields@eprod.com</u>	Telephone: <u>713-381-6684</u>
<u>OCD Only</u>	
Received by: <u>Robert Hamlet</u>	Date: <u>2/6/2020</u>

Facility : line 1003

Date : 1/6/2020

Enter data in shaded fields to calculate gas volumes released due to leak and/or blowdown of system.

Hours of leak	0.25	NOTE: Enter Components on the Gas Leak or Gas Blowdown sheet as needed.	Rectangle or Line Crack
Diameter of hole (inches)	0.0625		
Line Pressure at Leak	475		
Volume of Gas Leaked	0.48	Hourly Basis	
		0.48 MSCF	
		Length, in.	
		Width, in.	
		Eqv. Diameter, in.	#DIV/0!

Calculations:

Volume of Gas Leaked (MSCF) = Diameter*²Diameter*(Upstream Gauge Pressure + Atmospheric Pressure)*Hours of Leak

**Reference: Pipeline Rules of Thumb Handbook, 3rd Edition, McAllister, Page 260. Assuming Standard Temperature and Pressure (14.7 psi and 60 F)

Footage of Pipe blowdown	16900
Initial line pressure	475
Diameter of Pipe (inches)	6
Volume of Gas Blown Down	128.07957 MSCF

Calculations:

Volume of Gas Blown Down (MSCF) = Volume at pipeline conditions (ft3)*(Gauge Pressure (psig)+Atmospheric Pressure (13.7 psi)*Standard Temperature (60F)

/(1000 scf/mscf)*Standard Pressure (14.7psi)*Temperature(F)*Z Factor

Volume at pipeline conditions (scf) = Diameter/12 (ft)*Diameter/12 (ft)*PI/4*Length of pipe (ft)

**Reference: Gas Pipeline Hydraulics, Menon (2005) Pages 132-134. Assuming the Ideal Gas Law and Pipeline = Tatum.

Total Gas Loss	128.56 MSCF	0.129 MMSCF
----------------	-------------	-------------

Cause/ Reason: internal corrosion

Corrective Action: isolated and a plidco clamp installed.

Name: Steve Kutach III

Cell Phone: 303 301 4375

APPENDIX B

NMOSE WELLS REPORT



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)		(NAD83 UTM in meters)					
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
	C 03423	2	4	1	26	24S	28E	588786	3561952
<hr/>									
Driller License: 410		Driller Company:		BRININSTOOL, A.M.					
Driller Name:		A.M. BRININSTOOL							
Drill Start Date:		Drill Finish Date:		12/06/1965		Plug Date:			
Log File Date: 12/07/1965		PCW Rev Date:				Source:		Shallow	
Pump Type:		Pipe Discharge Size:				Estimated Yield:			
Casing Size: 16.00		Depth Well:		126 feet		Depth Water:			
<hr/>									
Water Bearing Stratifications:		Top	Bottom	Description					
		115	125	Limestone/Dolomite/Chalk					
<hr/>									
Casing Perforations:		Top	Bottom						
		45	125						
<hr/>									

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



USGS Home
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National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 321126104032101

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 321126104032101 24S.28E.26.23133

Eddy County, New Mexico
Latitude 32°11'25.8", Longitude 104°03'27.0" NAD83
Land-surface elevation 2,944.90 feet above NGVD29
The depth of the well is 126 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data

Tab-separated data

Graph of data

Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1978-02-21			D	27.57		2			U		A
1983-01-31			D	21.83		2			U		A
1987-10-16			D	21.83		2			U		A
1988-02-10			D	21.89		2			U		A
1992-10-20			D	22.33		2			S		A
1998-01-23			D	26.98		2			S		A
2003-02-04			D	37.25		2			S	USGS	A
2013-01-10	14:50 MST		m	45.02		2			S	USGS	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	A	Reported by another government agency (do not use "A" if reported by owner, use "O").
Source of measurement	R	Reported by person other than the owner, driller, or another government agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-01-27 16:08:55 EST

0.22 0.19 nadww02

Form WR-23

STATE ENGINEER OFFICE

FIELD GR. LOG

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1

(A) Owner of well

Street and Number

City

State

Well was drilled under Permit No.

and is located in the

9 1/4 Sec 14 NE 1/4 SE 1/4 NW 1/4

Twp. 26

Rge. 28 E

(B) Drilling Contractor

License No.

Street and Number

City

State

Drilling was commenced

19 65

Drilling was completed

19 65

(Plat of 640 acres)

Elevation at top of casing in feet above sea level

Total depth of well

State whether well is shallow or artesian

Depth to water upon completion

Section 2

PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
	From	To		
1	115	125	10	Paris lime water
2				
3				
4				
5				

Section 3

RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth		Feet	Type Shoe	Perforations	
			Top	Bottom			From	To
1 1/2	95	welding	0	125				

Section 4

RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
From	To				

Section 5

PLUGGING RECORD

Name of Plugging Contractor

Street and Number

City

State

Tons of Clay used

Tons of Roughage used

Type of roughage

Plugging method used

Date Plugged

19

Plugging approved by:

Cement Plugs were placed as follows:

No.	Depth of Plug		No. of Sacks Used
	From	To	

Basin Supervisor

FOR USE OF STATE ENGINEER ONLY

Date Received

File No.

*C-1265

Use

Expl

Location No.

3428.26.426

*Renumbered C-3423(Stk) Pool

546172

LOG OF WELL

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Mrs. A. M. Brewster
Well Driller

APPENDIX C

LABORATORY ANALYTICAL REPORTS



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

February 06, 2020

Ashley Maxwell
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX

RE: 1003

OrderNo.: 2001C19

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/30/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical ReportLab Order **2001C19**Date Reported: **2/6/2020****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller & Associates**Client Sample ID:** BG 3-4"**Project:** 1003**Collection Date:** 1/29/2020 9:45:00 AM**Lab ID:** 2001C19-001**Matrix:** SOIL**Received Date:** 1/30/2020 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	150	60		mg/Kg	20	2/5/2020 5:19:25 PM	50242

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

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

Analytical Report

Lab Order 2001C19

Date Reported: 2/6/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: 57-52"

Project: 1003

Collection Date: 1/29/2020 1:32:00 PM

Lab ID: 2001C19-002

Matrix: SOIL

Received Date: 1/30/2020 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	2400	150		mg/Kg	50	2/5/2020 5:31:46 PM	50242
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	220	9.7		mg/Kg	1	2/3/2020 10:09:49 AM	50189
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/3/2020 10:09:49 AM	50189
Surr: DNOP	102	55.1-146		%Rec	1	2/3/2020 10:09:49 AM	50189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	2400	250		mg/Kg	50	2/5/2020 4:04:43 PM	50185
Surr: BFB	263	66.6-105	S	%Rec	50	2/5/2020 4:04:43 PM	50185
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	9.3	1.2		mg/Kg	50	2/5/2020 4:04:43 PM	50185
Toluene	67	2.5		mg/Kg	50	2/5/2020 4:04:43 PM	50185
Ethylbenzene	18	2.5		mg/Kg	50	2/5/2020 4:04:43 PM	50185
Xylenes, Total	210	5.0		mg/Kg	50	2/5/2020 4:04:43 PM	50185
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	50	2/5/2020 4:04:43 PM	50185

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

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

Analytical Report

Lab Order 2001C19

Date Reported: 2/6/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: 58-3ft 6 inches

Project: 1003

Collection Date: 1/29/2020 1:41:00 PM

Lab ID: 2001C19-003

Matrix: SOIL

Received Date: 1/30/2020 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	1700	60		mg/Kg	20	2/4/2020 2:57:06 PM	50242
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	12	9.2		mg/Kg	1	2/3/2020 10:18:59 AM	50189
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/3/2020 10:18:59 AM	50189
Surr: DNOP	98.5	55.1-146		%Rec	1	2/3/2020 10:18:59 AM	50189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/5/2020 4:28:05 PM	50185
Surr: BFB	81.5	66.6-105		%Rec	1	2/5/2020 4:28:05 PM	50185
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/5/2020 4:28:05 PM	50185
Toluene	ND	0.047		mg/Kg	1	2/5/2020 4:28:05 PM	50185
Ethylbenzene	ND	0.047		mg/Kg	1	2/5/2020 4:28:05 PM	50185
Xylenes, Total	ND	0.094		mg/Kg	1	2/5/2020 4:28:05 PM	50185
Surr: 4-Bromofluorobenzene	89.3	80-120		%Rec	1	2/5/2020 4:28:05 PM	50185

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

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

Analytical Report

Lab Order 2001C19

Date Reported: 2/6/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: 59-3ft 6 inches

Project: 1003

Collection Date: 1/29/2020 1:50:00 PM

Lab ID: 2001C19-004

Matrix: SOIL

Received Date: 1/30/2020 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	840	60		mg/Kg	20	2/4/2020 3:34:10 PM	50242
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/3/2020 10:28:09 AM	50189
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/3/2020 10:28:09 AM	50189
Surr: DNOP	97.0	55.1-146		%Rec	1	2/3/2020 10:28:09 AM	50189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/4/2020 11:10:08 PM	50185
Surr: BFB	81.7	66.6-105		%Rec	1	2/4/2020 11:10:08 PM	50185
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/4/2020 11:10:08 PM	50185
Toluene	ND	0.047		mg/Kg	1	2/4/2020 11:10:08 PM	50185
Ethylbenzene	ND	0.047		mg/Kg	1	2/4/2020 11:10:08 PM	50185
Xylenes, Total	ND	0.094		mg/Kg	1	2/4/2020 11:10:08 PM	50185
Surr: 4-Bromofluorobenzene	91.2	80-120		%Rec	1	2/4/2020 11:10:08 PM	50185

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

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

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

WO#: 2001C19

06-Feb-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: MB-50242	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 50242	RunNo: 66289								
Prep Date: 2/4/2020	Analysis Date: 2/4/2020	SeqNo: 2277916	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-50242	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 50242	RunNo: 66289								
Prep Date: 2/4/2020	Analysis Date: 2/4/2020	SeqNo: 2277917	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.9	90	110			

Qualifiers:

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

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

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

WO#: 2001C19

06-Feb-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: MB-50189	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 50189	RunNo: 66246								
Prep Date: 1/31/2020	Analysis Date: 2/3/2020	SeqNo: 2275621			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		93.6	55.1	146			

Sample ID: LCS-50189	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 50189	RunNo: 66246								
Prep Date: 1/31/2020	Analysis Date: 2/3/2020	SeqNo: 2275622			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	63.9	124			
Surr: DNOP	4.5		5.000		89.9	55.1	146			

Qualifiers:

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

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

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

WO#: 2001C19

06-Feb-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: mb-50185	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 50185	RunNo: 66278								
Prep Date: 1/31/2020	Analysis Date: 2/4/2020	SeqNo: 2277391 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	790		1000		79.4	66.6	105			

Sample ID: lcs-50185	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 50185	RunNo: 66278								
Prep Date: 1/31/2020	Analysis Date: 2/4/2020	SeqNo: 2277393 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.9	80	120			
Surr: BFB	910		1000		91.2	66.6	105			

Sample ID: mb-50219	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 50219	RunNo: 66278								
Prep Date: 2/3/2020	Analysis Date: 2/5/2020	SeqNo: 2277403 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	750		1000		75.4	66.6	105			

Sample ID: lcs-50219	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 50219	RunNo: 66278								
Prep Date: 2/3/2020	Analysis Date: 2/4/2020	SeqNo: 2277404 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		85.5	66.6	105			

Qualifiers:

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

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

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

WO#: 2001C19

06-Feb-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: mb-50185	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 50185	RunNo: 66278								
Prep Date: 1/31/2020	Analysis Date: 2/4/2020	SeqNo: 2277424	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.87		1.000		86.5	80	120			

Sample ID: lcs-50185	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 50185	RunNo: 66278								
Prep Date: 1/31/2020	Analysis Date: 2/4/2020	SeqNo: 2277425	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.3	80	120			
Toluene	0.93	0.050	1.000	0	93.3	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.0	80	120			
Surr: 4-Bromofluorobenzene	0.90		1.000		89.7	80	120			

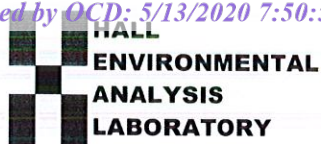
Sample ID: mb-50219	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 50219	RunNo: 66278								
Prep Date: 2/3/2020	Analysis Date: 2/5/2020	SeqNo: 2277435	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.85		1.000		85.3	80	120			

Sample ID: lcs-50219	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 50219	RunNo: 66278								
Prep Date: 2/3/2020	Analysis Date: 2/4/2020	SeqNo: 2277436	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		91.9	80	120			

Qualifiers:

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

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



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

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 2001C19

RcptNo: 1

Received By: Isaiah Ortiz

1/30/2020 8:50:00 AM

I-OX

Completed By: Isaiah Ortiz

1/31/2020 9:29:51 AM

I-OX

Reviewed By:

YG 1/31/20

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: JR 1/31/20

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.5	Good	Not Present			



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

February 20, 2020

Ashley Maxwell
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX

RE: 1003

OrderNo.: 2002516

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 10 sample(s) on 2/13/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2002516

Date Reported: 2/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH1-4'

Project: 1003

Collection Date: 2/10/2020 10:55:00 AM

Lab ID: 2002516-001

Matrix: SOIL

Received Date: 2/13/2020 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	2100	150		mg/Kg	50	2/19/2020 12:49:36 AM	50475
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	96	10		mg/Kg	1	2/17/2020 6:58:12 PM	50453
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/17/2020 6:58:12 PM	50453
Surr: DNOP	86.2	55.1-146		%Rec	1	2/17/2020 6:58:12 PM	50453
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	51	9.8		mg/Kg	2	2/17/2020 11:20:23 PM	50435
Surr: BFB	269	66.6-105	S	%Rec	2	2/17/2020 11:20:23 PM	50435
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	2	2/17/2020 11:20:23 PM	50435
Toluene	ND	0.098		mg/Kg	2	2/17/2020 11:20:23 PM	50435
Ethylbenzene	ND	0.098		mg/Kg	2	2/17/2020 11:20:23 PM	50435
Xylenes, Total	0.24	0.20		mg/Kg	2	2/17/2020 11:20:23 PM	50435
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	2	2/17/2020 11:20:23 PM	50435

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

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

Analytical Report

Lab Order 2002516

Date Reported: 2/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH2-4'

Project: 1003

Collection Date: 2/10/2020 11:55:00 AM

Lab ID: 2002516-002

Matrix: SOIL

Received Date: 2/13/2020 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	280	60		mg/Kg	20	2/17/2020 3:46:16 PM	50475
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	190	9.1		mg/Kg	1	2/17/2020 7:07:25 PM	50453
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/17/2020 7:07:25 PM	50453
Surr: DNOP	98.9	55.1-146		%Rec	1	2/17/2020 7:07:25 PM	50453
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	17	9.9		mg/Kg	2	2/18/2020 12:07:33 AM	50435
Surr: BFB	136	66.6-105	S	%Rec	2	2/18/2020 12:07:33 AM	50435
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	2	2/18/2020 12:07:33 AM	50435
Toluene	ND	0.099		mg/Kg	2	2/18/2020 12:07:33 AM	50435
Ethylbenzene	ND	0.099		mg/Kg	2	2/18/2020 12:07:33 AM	50435
Xylenes, Total	ND	0.20		mg/Kg	2	2/18/2020 12:07:33 AM	50435
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	2	2/18/2020 12:07:33 AM	50435

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

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

Analytical Report

Lab Order 2002516

Date Reported: 2/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH3-4'

Project: 1003

Collection Date: 2/10/2020 12:10:00 PM

Lab ID: 2002516-003

Matrix: SOIL

Received Date: 2/13/2020 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	1500	60		mg/Kg	20	2/17/2020 3:58:37 PM	50475
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/17/2020 7:16:37 PM	50453
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/17/2020 7:16:37 PM	50453
Surr: DNOP	88.2	55.1-146		%Rec	1	2/17/2020 7:16:37 PM	50453
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/15/2020 3:12:49 PM	50435
Surr: BFB	80.7	66.6-105		%Rec	1	2/15/2020 3:12:49 PM	50435
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/18/2020 12:54:49 AM	50435
Toluene	ND	0.050		mg/Kg	1	2/18/2020 12:54:49 AM	50435
Ethylbenzene	ND	0.050		mg/Kg	1	2/18/2020 12:54:49 AM	50435
Xylenes, Total	ND	0.099		mg/Kg	1	2/18/2020 12:54:49 AM	50435
Surr: 4-Bromofluorobenzene	90.5	80-120		%Rec	1	2/18/2020 12:54:49 AM	50435

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

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

Analytical Report

Lab Order 2002516

Date Reported: 2/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW1

Project: 1003

Collection Date: 2/10/2020 12:50:00 PM

Lab ID: 2002516-004

Matrix: SOIL

Received Date: 2/13/2020 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	1300	60		mg/Kg	20	2/17/2020 4:10:59 PM	50475
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/17/2020 7:25:48 PM	50453
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/17/2020 7:25:48 PM	50453
Surr: DNOP	67.9	55.1-146		%Rec	1	2/17/2020 7:25:48 PM	50453
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/15/2020 3:36:16 PM	50435
Surr: BFB	82.1	66.6-105		%Rec	1	2/15/2020 3:36:16 PM	50435
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/18/2020 1:18:25 AM	50435
Toluene	ND	0.050		mg/Kg	1	2/18/2020 1:18:25 AM	50435
Ethylbenzene	ND	0.050		mg/Kg	1	2/18/2020 1:18:25 AM	50435
Xylenes, Total	ND	0.099		mg/Kg	1	2/18/2020 1:18:25 AM	50435
Surr: 4-Bromofluorobenzene	89.6	80-120		%Rec	1	2/18/2020 1:18:25 AM	50435

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

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

Analytical Report

Lab Order 2002516

Date Reported: 2/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW2

Project: 1003

Collection Date: 2/10/2020 1:40:00 PM

Lab ID: 2002516-005

Matrix: SOIL

Received Date: 2/13/2020 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	980	60		mg/Kg	20	2/17/2020 4:23:20 PM	50475
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	50	9.7		mg/Kg	1	2/17/2020 7:35:01 PM	50453
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/17/2020 7:35:01 PM	50453
Surr: DNOP	82.6	55.1-146		%Rec	1	2/17/2020 7:35:01 PM	50453
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/15/2020 3:59:35 PM	50435
Surr: BFB	80.7	66.6-105		%Rec	1	2/15/2020 3:59:35 PM	50435
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/18/2020 1:41:59 AM	50435
Toluene	ND	0.049		mg/Kg	1	2/18/2020 1:41:59 AM	50435
Ethylbenzene	ND	0.049		mg/Kg	1	2/18/2020 1:41:59 AM	50435
Xylenes, Total	ND	0.098		mg/Kg	1	2/18/2020 1:41:59 AM	50435
Surr: 4-Bromofluorobenzene	89.8	80-120		%Rec	1	2/18/2020 1:41:59 AM	50435

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

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

Analytical Report

Lab Order 2002516

Date Reported: 2/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW3

Project: 1003

Collection Date: 2/10/2020 2:21:00 PM

Lab ID: 2002516-006

Matrix: SOIL

Received Date: 2/13/2020 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	2000	60		mg/Kg	20	2/17/2020 4:35:41 PM	50475
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	68	9.8		mg/Kg	1	2/17/2020 7:44:14 PM	50453
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/17/2020 7:44:14 PM	50453
Surr: DNOP	80.3	55.1-146		%Rec	1	2/17/2020 7:44:14 PM	50453
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/15/2020 4:22:52 PM	50435
Surr: BFB	83.2	66.6-105		%Rec	1	2/15/2020 4:22:52 PM	50435
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/18/2020 2:05:32 AM	50435
Toluene	ND	0.050		mg/Kg	1	2/18/2020 2:05:32 AM	50435
Ethylbenzene	ND	0.050		mg/Kg	1	2/18/2020 2:05:32 AM	50435
Xylenes, Total	ND	0.099		mg/Kg	1	2/18/2020 2:05:32 AM	50435
Surr: 4-Bromofluorobenzene	89.6	80-120		%Rec	1	2/18/2020 2:05:32 AM	50435

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

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

Analytical Report

Lab Order 2002516

Date Reported: 2/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW4

Project: 1003

Collection Date: 2/10/2020 2:58:00 PM

Lab ID: 2002516-007

Matrix: SOIL

Received Date: 2/13/2020 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	420	60		mg/Kg	20	2/17/2020 11:35:32 PM	50487
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	20	9.6		mg/Kg	1	2/17/2020 7:53:25 PM	50453
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/17/2020 7:53:25 PM	50453
Surr: DNOP	75.3	55.1-146		%Rec	1	2/17/2020 7:53:25 PM	50453
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/15/2020 4:46:08 PM	50435
Surr: BFB	88.0	66.6-105		%Rec	1	2/15/2020 4:46:08 PM	50435
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/18/2020 2:29:07 AM	50435
Toluene	ND	0.049		mg/Kg	1	2/18/2020 2:29:07 AM	50435
Ethylbenzene	ND	0.049		mg/Kg	1	2/18/2020 2:29:07 AM	50435
Xylenes, Total	ND	0.098		mg/Kg	1	2/18/2020 2:29:07 AM	50435
Surr: 4-Bromofluorobenzene	89.7	80-120		%Rec	1	2/18/2020 2:29:07 AM	50435

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

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

Analytical Report

Lab Order 2002516

Date Reported: 2/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW5

Project: 1003

Collection Date: 2/10/2020 3:30:00 PM

Lab ID: 2002516-008

Matrix: SOIL

Received Date: 2/13/2020 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	97	60		mg/Kg	20	2/17/2020 11:47:53 PM	50487
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/17/2020 8:02:35 PM	50453
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/17/2020 8:02:35 PM	50453
Surr: DNOP	88.4	55.1-146		%Rec	1	2/17/2020 8:02:35 PM	50453
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/15/2020 5:09:22 PM	50435
Surr: BFB	82.8	66.6-105		%Rec	1	2/15/2020 5:09:22 PM	50435
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/18/2020 2:52:38 AM	50435
Toluene	ND	0.050		mg/Kg	1	2/18/2020 2:52:38 AM	50435
Ethylbenzene	ND	0.050		mg/Kg	1	2/18/2020 2:52:38 AM	50435
Xylenes, Total	ND	0.10		mg/Kg	1	2/18/2020 2:52:38 AM	50435
Surr: 4-Bromofluorobenzene	90.5	80-120		%Rec	1	2/18/2020 2:52:38 AM	50435

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

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

Analytical ReportLab Order **2002516**Date Reported: **2/20/2020****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller & Associates**Client Sample ID:** BG3**Project:** 1003**Collection Date:** 2/10/2020 4:13:00 PM**Lab ID:** 2002516-009**Matrix:** SOIL**Received Date:** 2/13/2020 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	170	60		mg/Kg	20	2/13/2020 8:05:05 PM	50442

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

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

Analytical Report

Lab Order 2002516

Date Reported: 2/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BG4

Project: 1003

Collection Date: 2/10/2020 4:44:00 PM

Lab ID: 2002516-010

Matrix: SOIL

Received Date: 2/13/2020 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	2600	150		mg/Kg	50	2/17/2020 5:25:04 PM	50442

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

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

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

WO#: 2002516

20-Feb-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: MB-50442	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 50442	RunNo: 66549								
Prep Date: 2/13/2020	Analysis Date: 2/13/2020	SeqNo: 2287113 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-50442	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 50442	RunNo: 66549								
Prep Date: 2/13/2020	Analysis Date: 2/13/2020	SeqNo: 2287114 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Sample ID: MB-50475	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 50475	RunNo: 66591								
Prep Date: 2/17/2020	Analysis Date: 2/17/2020	SeqNo: 2288912 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-50475	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 50475	RunNo: 66591								
Prep Date: 2/17/2020	Analysis Date: 2/17/2020	SeqNo: 2288913 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.3	90	110			

Sample ID: MB-50487	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 50487	RunNo: 66591								
Prep Date: 2/17/2020	Analysis Date: 2/17/2020	SeqNo: 2288952 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-50487	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 50487	RunNo: 66591								
Prep Date: 2/17/2020	Analysis Date: 2/17/2020	SeqNo: 2288953 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.2	90	110			

Qualifiers:

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

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

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

WO#: 2002516

20-Feb-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: MB-50455	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 50455		RunNo: 66580							
Prep Date: 2/14/2020	Analysis Date: 2/17/2020		SeqNo: 2288366		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		91.1	55.1	146			

Sample ID: LCS-50455	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 50455		RunNo: 66580							
Prep Date: 2/14/2020	Analysis Date: 2/17/2020		SeqNo: 2288367		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		89.0	55.1	146			

Sample ID: MB-50453	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 50453		RunNo: 66580							
Prep Date: 2/14/2020	Analysis Date: 2/17/2020		SeqNo: 2288580		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		85.7	55.1	146			

Sample ID: LCS-50453	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 50453		RunNo: 66580							
Prep Date: 2/14/2020	Analysis Date: 2/17/2020		SeqNo: 2288581		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	70	130			
Surr: DNOP	4.1		5.000		82.4	55.1	146			

Sample ID: MB-50496	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 50496		RunNo: 66605							
Prep Date: 2/18/2020	Analysis Date: 2/18/2020		SeqNo: 2289090		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		88.8	55.1	146			

Sample ID: LCS-50496	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 50496		RunNo: 66605							
Prep Date: 2/18/2020	Analysis Date: 2/18/2020		SeqNo: 2289092		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		84.7	55.1	146			

Qualifiers:

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

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

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

WO#: 2002516

20-Feb-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: MB-50486	SampType: MBLK				TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: PBS	Batch ID: 50486				RunNo: 66605					
Prep Date: 2/17/2020	Analysis Date: 2/18/2020				SeqNo: 2289790	Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		111	55.1	146			

Sample ID: LCS-50486	SampType: LCS				TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: LCSS	Batch ID: 50486				RunNo: 66605					
Prep Date: 2/17/2020	Analysis Date: 2/18/2020				SeqNo: 2289791	Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		102	55.1	146			

Qualifiers:

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

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

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

WO#: 2002516

20-Feb-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: MB-50443	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 50443			RunNo: 66571						
Prep Date: 2/13/2020	Analysis Date: 2/14/2020			SeqNo: 2287764		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	780		1000		78.3	66.6	105			

Sample ID: LCS-50443	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 50443			RunNo: 66571						
Prep Date: 2/13/2020	Analysis Date: 2/14/2020			SeqNo: 2287765		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		88.9	66.6	105			

Sample ID: mb-50435	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 50435			RunNo: 66571						
Prep Date: 2/13/2020	Analysis Date: 2/15/2020			SeqNo: 2287867		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	790		1000		78.7	66.6	105			

Sample ID: lcs-50435	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 50435			RunNo: 66571						
Prep Date: 2/13/2020	Analysis Date: 2/15/2020			SeqNo: 2287868		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.4	80	120			
Surr: BFB	870		1000		87.4	66.6	105			

Qualifiers:

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

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

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

WO#: 2002516

20-Feb-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: MB-50443	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 50443		RunNo: 66571							
Prep Date: 2/13/2020	Analysis Date: 2/14/2020		SeqNo: 2287894		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.87		1.000		87.2	80	120			

Sample ID: LCS-50443	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 50443		RunNo: 66571							
Prep Date: 2/13/2020	Analysis Date: 2/14/2020		SeqNo: 2287895		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.89		1.000		89.2	80	120			

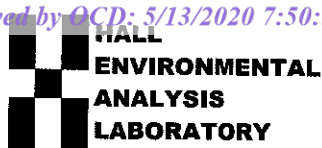
Sample ID: mb-50435	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 50435		RunNo: 66590							
Prep Date: 2/13/2020	Analysis Date: 2/17/2020		SeqNo: 2288662		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.8	80	120			

Sample ID: lcs-50435	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 50435		RunNo: 66590							
Prep Date: 2/13/2020	Analysis Date: 2/17/2020		SeqNo: 2288663		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.8	80	120			
Toluene	0.92	0.050	1.000	0	91.6	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.6	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.1	80	120			
Surr: 4-Bromofluorobenzene	0.90		1.000		89.9	80	120			

Qualifiers:

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

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



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

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 2002516

RcptNo: 1

Received By:

Juan Rojas
Leah Baca 2/13/20
LB

2/13/2020 10:18:00 AM

Completed By:

Isaiah Ortiz

2/13/2020 10:42:13 AM

Reviewed By:

Y6 2/13/20

Leah Baca
I-OK

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: *JP 2/13/20*

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.2	Good	Not Present			

Chain-of-Custody Record

Client:

SMA

Mailing Address:

201 S. Halaqueno St.

Carlsbad NM 88220

Phone #: (575) 689-8801

email or Fax# ashley-maxwell@sardermiller.com

QA/QC Package:

☒ Standard☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC☐ Other☐ EDD (Type)

Project Manager:

Ashley Maxwell

Sampler: SOV/BAV

On Ice: ☒ Yes ☐ No

of Coolers:

Cooler Temp (including CFI): 40 ± 0.2 = 40°C

Date

Time

Matrix

Sample Name

BH1 - 4'

BH2 - 4'

BH3 - 4'

SW1

SW2

SW3

SW4

SW5

BG3

BG4

BH1 - 4'

BH2 - 4'

BH3 - 4'

SW1

SW2

SW3

SW4

SW5

BG3

BG4

BH1 - 4'

BH2 - 4'

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BH1 - 4'

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SW1

SW2

SW3

SW4

SW5

BG3

BG4

BH1 - 4'

BH2 - 4'

BH3 - 4'

SW1

SW2



Analytical Report

Report Summary

Client: Enterprise

Samples Received: 2/20/2020

Job Number: 19026-0001

Work Order: P002053

Project Name/Location: 1003

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is placed over a light blue rectangular background.

Date: 2/21/20

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
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Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.



Enterprise	Project Name:	1003	Reported: 02/21/20 12:22
3008 E Greene St.	Project Number:	19026-0001	
Carlsbad NM, 88220	Project Manager:	Ashely Maxwell	

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Comp-1	P002053-01A	Soil	02/18/20	02/20/20	Glass Jar, 4 oz.
Comp-2	P002053-02A	Soil	02/18/20	02/20/20	Glass Jar, 4 oz.
Comp-3	P002053-03A	Soil	02/18/20	02/20/20	Glass Jar, 4 oz.
Comp-4	P002053-04A	Soil	02/18/20	02/20/20	Glass Jar, 4 oz.

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Enterprise	Project Name:	1003	
3008 E Greene St.	Project Number:	19026-0001	Reported:
Carlsbad NM, 88220	Project Manager:	Ashely Maxwell	02/21/20 12:22

Comp-1
P002053-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %		50-150	2008025	02/20/20	02/21/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008023	02/20/20	02/20/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008023	02/20/20	02/20/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		94.6 %		50-200	2008023	02/20/20	02/20/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.4 %		50-150	2008025	02/20/20	02/21/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	1410	20.0	mg/kg	1	2008024	02/20/20	02/21/20	EPA 300.0/9056A	
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Enterprise	Project Name:	1003	
3008 E Greene St.	Project Number:	19026-0001	Reported:
Carlsbad NM, 88220	Project Manager:	Ashely Maxwell	02/21/20 12:22

Comp-2
P002053-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %		50-150	2008025	02/20/20	02/21/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008023	02/20/20	02/20/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008023	02/20/20	02/20/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		92.7 %		50-200	2008023	02/20/20	02/20/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.4 %		50-150	2008025	02/20/20	02/21/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	1890	20.0	mg/kg	1	2008024	02/20/20	02/21/20	EPA 300.0/9056A	
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Enterprise	Project Name:	1003	
3008 E Greene St.	Project Number:	19026-0001	Reported:
Carlsbad NM, 88220	Project Manager:	Ashely Maxwell	02/21/20 12:22

Comp-3
P002053-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %		50-150	2008025	02/20/20	02/21/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008023	02/20/20	02/20/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008023	02/20/20	02/20/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		86.8 %		50-200	2008023	02/20/20	02/20/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.8 %		50-150	2008025	02/20/20	02/21/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	1250	20.0	mg/kg	1	2008024	02/20/20	02/21/20	EPA 300.0/9056A	
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Enterprise	Project Name:	1003	
3008 E Greene St.	Project Number:	19026-0001	Reported:
Carlsbad NM, 88220	Project Manager:	Ashely Maxwell	02/21/20 12:22

Comp-4
P002053-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %		50-150	2008025	02/20/20	02/21/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008023	02/20/20	02/20/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008023	02/20/20	02/20/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		94.6 %		50-200	2008023	02/20/20	02/20/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2008025	02/20/20	02/21/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.2 %		50-150	2008025	02/20/20	02/21/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	1100	20.0	mg/kg	1	2008024	02/20/20	02/21/20	EPA 300.0/9056A	
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Enterprise	Project Name:	1003	
3008 E Greene St.	Project Number:	19026-0001	Reported:
Carlsbad NM, 88220	Project Manager:	Ashely Maxwell	02/21/20 12:22

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2008025 - Purge and Trap EPA 5030A

Blank (2008025-BLK1)

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							

Surrogate: 4-Bromochlorobenzene-PID 8.27 " 8.00 103 50-150

LCS (2008025-BS1)

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Benzene	5.09	0.0250	mg/kg	5.00		102	70-130			
Toluene	5.09	0.0250	"	5.00		102	70-130			
Ethylbenzene	5.08	0.0250	"	5.00		102	70-130			
p,m-Xylene	10.1	0.0500	"	10.0		101	70-130			
o-Xylene	5.07	0.0250	"	5.00		101	70-130			
Total Xylenes	15.2	0.0250	"	15.0		101	0-200			

Surrogate: 4-Bromochlorobenzene-PID 8.33 " 8.00 104 50-150

Matrix Spike (2008025-MS1)

Source: P002045-01

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Benzene	4.86	0.0250	mg/kg	5.00	ND	97.2	54.3-133			
Toluene	4.85	0.0250	"	5.00	ND	97.1	61.4-130			
Ethylbenzene	4.84	0.0250	"	5.00	ND	96.8	61.4-133			
p,m-Xylene	9.65	0.0500	"	10.0	ND	96.5	63.3-131			
o-Xylene	4.83	0.0250	"	5.00	ND	96.7	63.3-131			
Total Xylenes	14.5	0.0250	"	15.0	ND	96.6	0-200			

Surrogate: 4-Bromochlorobenzene-PID 8.41 " 8.00 105 50-150

Matrix Spike Dup (2008025-MSD1)

Source: P002045-01

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Benzene	4.76	0.0250	mg/kg	5.00	ND	95.2	54.3-133	2.00	20	
Toluene	4.73	0.0250	"	5.00	ND	94.7	61.4-130	2.49	20	
Ethylbenzene	4.72	0.0250	"	5.00	ND	94.5	61.4-133	2.43	20	
p,m-Xylene	9.42	0.0500	"	10.0	ND	94.2	63.3-131	2.45	20	
o-Xylene	4.72	0.0250	"	5.00	ND	94.4	63.3-131	2.38	20	
Total Xylenes	14.1	0.0250	"	15.0	ND	94.3	0-200	2.42	200	

Surrogate: 4-Bromochlorobenzene-PID 8.53 " 8.00 107 50-150

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Enterprise	Project Name:	1003	
3008 E Greene St.	Project Number:	19026-0001	Reported:
Carlsbad NM, 88220	Project Manager:	Ashely Maxwell	02/21/20 12:22

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2008023 - DRO Extraction EPA 3570

Blank (2008023-BLK1)

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	47.7		"	50.0		95.4	50-200			

LCS (2008023-BS1)

Prepared: 02/20/20 0 Analyzed: 02/21/20 0

Diesel Range Organics (C10-C28)	422	25.0	mg/kg	500		84.4	38-132			
Surrogate: n-Nonane	47.1		"	50.0		94.2	50-200			

Matrix Spike (2008023-MS1)

Source: P002053-01

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Diesel Range Organics (C10-C28)	469	25.0	mg/kg	500	ND	93.7	38-132			
Surrogate: n-Nonane	49.2		"	50.0		98.4	50-200			

Matrix Spike Dup (2008023-MSD1)

Source: P002053-01

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Diesel Range Organics (C10-C28)	445	25.0	mg/kg	500	ND	88.9	38-132	5.22	20	
Surrogate: n-Nonane	46.9		"	50.0		93.8	50-200			

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Enterprise	Project Name:	1003	
3008 E Greene St.	Project Number:	19026-0001	Reported:
Carlsbad NM, 88220	Project Manager:	Ashely Maxwell	02/21/20 12:22

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2008025 - Purge and Trap EPA 5030A

Blank (2008025-BLK1)

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.55		"	8.00		94.4	50-150			

LCS (2008025-BS2)

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Gasoline Range Organics (C6-C10)	46.1	20.0	mg/kg	50.0		92.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.55		"	8.00		94.4	50-150			

Matrix Spike (2008025-MS2)

Source: P002045-01

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Gasoline Range Organics (C6-C10)	47.8	20.0	mg/kg	50.0	ND	95.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.62		"	8.00		95.2	50-150			

Matrix Spike Dup (2008025-MSD2)

Source: P002045-01

Prepared: 02/20/20 0 Analyzed: 02/20/20 2

Gasoline Range Organics (C6-C10)	47.5	20.0	mg/kg	50.0	ND	95.1	70-130	0.559	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		"	8.00		94.3	50-150			

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Enterprise	Project Name:	1003	
3008 E Greene St.	Project Number:	19026-0001	Reported:
Carlsbad NM, 88220	Project Manager:	Ashely Maxwell	02/21/20 12:22

Anions by 300.0/9056A - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2008024 - Anion Extraction EPA 300.0/9056A**Blank (2008024-BLK1)**

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Chloride	ND	20.0	mg/kg							
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LCS (2008024-BS1)

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Chloride	252	20.0	mg/kg	250		101	90-110			
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Matrix Spike (2008024-MS1)**Source: P002045-01**

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Chloride	362	20.0	mg/kg	250	104	103	80-120			
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Matrix Spike Dup (2008024-MSD1)**Source: P002045-01**

Prepared: 02/20/20 0 Analyzed: 02/20/20 1

Chloride	358	20.0	mg/kg	250	104	102	80-120	1.14	20	
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QC Summary Report**Comment:**

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Enterprise	Project Name:	1003	
3008 E Greene St.	Project Number:	19026-0001	Reported:
Carlsbad NM, 88220	Project Manager:	Ashely Maxwell	02/21/20 12:22

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

** Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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Client: <u>SMA - Enterprise</u> Project: <u>1003</u> Project Manager: <u>Ashley Maxwell</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: <u>brent.jackson@soudermiller.com</u> Report due by: <u>2/21/2020</u>					Bill To Attention: <u>SMA</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: <u>sebastian.oroza@soudermiller.com</u> <u>bob.irwin@soudermiller.com</u>					2D						TAT		EPA Program		
										Lab WO#			Job Number			1D	3D	RCRA	CWA	SDWA
										<u>P002053</u>			<u>19026-0001</u>							
										Analysis and Method										
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC - NM	BGDOC - TX	NM	CO	UT	AZ	Remarks		
10:20	2/18/20	S	1	Comp - 1	1							X								
10:35			1	Comp. - 2	2															
10:50			1	Comp. - 3	3															
2:30			1	Comp. - 4	4															

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>Brent Jackson / Sebastian Oroza</u>						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Relinquished by: (Signature) <u>Brent Jackson</u>	Date <u>2/19/20</u>	Time <u>10:01 am</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>2-19-2020</u>	Time <u>1001</u>	Received on ice: <u>Y</u> / N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>					
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>2-19-2020</u>	Time <u>1130</u>	Received by: (Signature) <u>Raina Lopez</u>	Date <u>2/20/20</u>	Time <u>9:00</u>						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____						Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA					
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.											



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

March 04, 2020

Ashley Maxwell
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-8801
FAX

RE: 1003

OrderNo.: 2002A65

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 2 sample(s) on 2/25/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2002A65

Date Reported: 3/4/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH1

Project: 1003

Collection Date: 2/21/2020 3:31:00 PM

Lab ID: 2002A65-001

Matrix: SOIL

Received Date: 2/25/2020 10:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	1300	59		mg/Kg	20	3/1/2020 7:59:40 PM	50776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/27/2020 5:18:11 PM	50685
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/27/2020 5:18:11 PM	50685
Surr: DNOP	81.1	55.1-146		%Rec	1	2/27/2020 5:18:11 PM	50685
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/28/2020 11:13:37 PM	50678
Surr: BFB	79.1	66.6-105		%Rec	1	2/28/2020 11:13:37 PM	50678
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/28/2020 11:13:37 PM	50678
Toluene	ND	0.049		mg/Kg	1	2/28/2020 11:13:37 PM	50678
Ethylbenzene	ND	0.049		mg/Kg	1	2/28/2020 11:13:37 PM	50678
Xylenes, Total	ND	0.098		mg/Kg	1	2/28/2020 11:13:37 PM	50678
Surr: 4-Bromofluorobenzene	87.1	80-120		%Rec	1	2/28/2020 11:13:37 PM	50678

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

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

Analytical Report

Lab Order 2002A65

Date Reported: 3/4/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH2

Project: 1003

Collection Date: 2/21/2020 3:45:00 PM

Lab ID: 2002A65-002

Matrix: SOIL

Received Date: 2/25/2020 10:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	380	60		mg/Kg	20	3/1/2020 8:12:00 PM	50776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	2/27/2020 5:40:07 PM	50685
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	2/27/2020 5:40:07 PM	50685
Surr: DNOP	57.9	55.1-146		%Rec	1	2/27/2020 5:40:07 PM	50685
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/28/2020 11:37:07 PM	50678
Surr: BFB	78.8	66.6-105		%Rec	1	2/28/2020 11:37:07 PM	50678
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/28/2020 11:37:07 PM	50678
Toluene	ND	0.048		mg/Kg	1	2/28/2020 11:37:07 PM	50678
Ethylbenzene	ND	0.048		mg/Kg	1	2/28/2020 11:37:07 PM	50678
Xylenes, Total	ND	0.096		mg/Kg	1	2/28/2020 11:37:07 PM	50678
Surr: 4-Bromofluorobenzene	86.6	80-120		%Rec	1	2/28/2020 11:37:07 PM	50678

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

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

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

WO#: 2002A65

04-Mar-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: MB-50776	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 50776	RunNo: 66941								
Prep Date: 3/1/2020	Analysis Date: 3/1/2020	SeqNo: 2302756	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-50776	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 50776	RunNo: 66941								
Prep Date: 3/1/2020	Analysis Date: 3/1/2020	SeqNo: 2302757	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

Qualifiers:

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

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

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

WO#: 2002A65

04-Mar-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: LCS-50685	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 50685			RunNo: 66879						
Prep Date: 2/26/2020	Analysis Date: 2/27/2020			SeqNo: 2299849		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	114	70	130			
Surr: DNOP	5.1		5.000		101	55.1	146			

Sample ID: MB-50685	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 50685			RunNo: 66879						
Prep Date: 2/26/2020	Analysis Date: 2/27/2020			SeqNo: 2299850		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		115	55.1	146			

Sample ID: MB-50823	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 50823			RunNo: 66967						
Prep Date: 3/3/2020	Analysis Date: 3/3/2020			SeqNo: 2304322		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.8		10.00		88.5	55.1	146			

Sample ID: LCS-50823	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 50823			RunNo: 66967						
Prep Date: 3/3/2020	Analysis Date: 3/3/2020			SeqNo: 2304323		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.4	55.1	146			

Qualifiers:

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

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

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

WO#: 2002A65

04-Mar-20

Client: Souder, Miller & Associates**Project:** 1003

Sample ID: mb-50678	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 50678	RunNo: 66892								
Prep Date: 2/25/2020	Analysis Date: 2/28/2020	SeqNo: 2301157			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	830		1000		83.4	66.6	105			

Sample ID: lcs-50678	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 50678	RunNo: 66892								
Prep Date: 2/25/2020	Analysis Date: 2/28/2020	SeqNo: 2301158			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.5	80	120			
Surr: BFB	890		1000		88.9	66.6	105			

Qualifiers:

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

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

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

WO#: 2002A65

04-Mar-20

Client: Souder, Miller & Associates**Project:** 1003

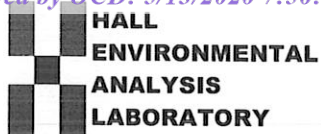
Sample ID: mb-50678	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 50678	RunNo: 66892								
Prep Date: 2/25/2020	Analysis Date: 2/28/2020	SeqNo: 2301205	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.9	80	120			

Sample ID: LCS-50678	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 50678	RunNo: 66892								
Prep Date: 2/25/2020	Analysis Date: 2/28/2020	SeqNo: 2301206	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.1	80	120			
Toluene	0.97	0.050	1.000	0	97.1	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.1	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.0	80	120			
Surr: 4-Bromofluorobenzene	0.95		1.000		94.8	80	120			

Qualifiers:

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

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



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

Sample Log-In Check List

Client Name: **SMA-CARLSBAD**Work Order Number: **2002A65**

RcptNo: 1

Received By: **Juan Rojas**

2/25/2020 10:55:00 AM

Completed By: **Erin Melendrez**

2/25/2020 1:17:07 PM

Reviewed By: **mf**

02/25/20

u. n. g.

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐5. Sample(s) in proper container(s)? Yes ☒ No ☐6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒10. Were any sample containers received broken? Yes ☐ No ☒11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐13. Is it clear what analyses were requested? Yes ☒ No ☐14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

TO
2/25/20

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

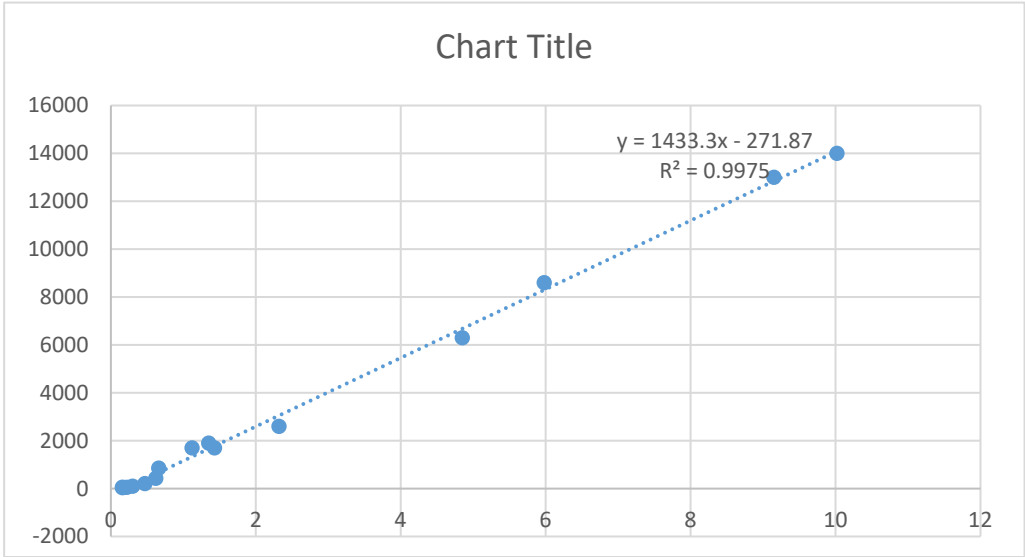
17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.2	Good				
2	4.2	Good				

Any sub-contracted data will be clearly notated on the analytical report. This serves as notice of this possibility. Any sub-contracted laboratories may be subcontracted to other accredited laboratories. Any sub-contracted data will be clearly notated on the analytical report.

APPENDIX D

EC CALIBRATION CURVE



EC	PPM
0.5	449.78
0.8	882.77
0.9	1027.1
1	1171.43
1.1	1315.76
1.2	1460.09
1.3	1604.42
1.5	1893.08
1.6	2037.41
1.8	2326.07
2	2614.73
3	4058.03
4	5501.33
5	6944.63
6	8387.93
7	9831.23

APPENDIX E PHOTOLOG

