



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

October 30, 2018

#5E26816-BG13

NMOCD District 2
Ms. Maria Pruet
811 S. 1st Street
Artesia, NM 88210

SUBJECT: Remediation Closure Report for the Anne Com #202H Release (2RP-4515), Malaga, New Mexico

Dear Ms. Pruet:

On behalf of Matador Resources, 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 Anne Com #202H site. The site is in Unit E, Section 15, Township 24S, Range 28E, Eddy County, New Mexico, on Private 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	Anne Com 202H	Company	Matador Resources
API Number	30-015-44417	Location	32.2189835 -104.0830436
Incident Number	2RP-4515		
Estimated Date of Release	11/23/17	Date Reported to NMOCD	11/27/17
Land Owner	Private	Reported To	OCD, Mike Bratcher
Source of Release	Equipment Error		
Released Volume	268 bbls	Released Material	Frac Fluid
Recovered Volume	175 bbls	Net Release	93 bbls
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	11/27, 12/6, 2017 and 6/21, 7/11, 8/16, 2018		

1.0 Background

On November 27, 2017, a release was discovered at the Anne Com #202H site due to equipment error. Initial response activities were conducted by a contractor, and included source elimination and removal of free fluids via vacuum truck, which recovered approximately 175 barrels of fluid which were hauled for disposal. Figure 1 illustrates the vicinity and site location, Figures 2 and 3 illustrate the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Anne Com 202H is located less than one mile southwest of Malaga, New Mexico on privately-owned land at an elevation of approximately 3,013 feet above mean sea level (amsl).

Based upon OSE and USGS (Appendix B), depth to groundwater in the area is estimated to be 13 feet below grade surface (bgs). There is one known water source within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 10/24/2018). NMOSE well C-02836 documents a depth to groundwater at 15 feet bgs. USGS well ending 43601 documents a depth to groundwater at less than 8 feet bgs. The nearest significant watercourse is the Black River, located approximately one (1) mile to the north. 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.

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

3.0 Release Characterization Activities and Findings

On November 27 and December 6, 2017, SMA personnel 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.

A total of five (5) sample locations (Source, L1, L2, L3, and L4) were investigated using excavated test pits, to depths up to 3 feet bgs. A minimum of two samples were collected at each sampling location and field-screened using the method above. A total of 17 samples were collected for laboratory analysis for total chloride using EPA Method 300.0; one sample at the source was collected for analysis of 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. Table 3 itemizes the samples and field-screening results as well as identifying any variances from the typical specification of two samples per boring. Locations for all samples are depicted on Figure 3.

Laboratory samples were collected in accordance with the sampling protocol included in Appendix C. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D). A summary of results can be found in Table 3.

In the workplan dated January 17, 2018, SMA proposed excavating and removing contaminated soil in the impacted area to approximately 1 foot bgs. On April 2, 2018, NMOCD requested additional sample locations and full delineation of locations to 600 ppm chloride.

On June 21, 2018, SMA conducted further delineation by collecting additional samples from locations L1 and L2, and from two additional sample locations (L5 and L6) to depths of four feet. Based on these results, SMA revised the estimated depth of excavation to 1, 3 and 4 feet bgs. Sidewall samples were collected from the one-foot excavation of the northeastern portion of the release (SW1-SW5).

4.0 Soil Remediation Summary

In July and August, 2018, SMA returned to the site to guide the excavation of contaminated soil. After approval from area utilities via 811, SMA guided the excavation activities by collecting soil samples for field screening. Samples were screened for chloride using an electrical conductivity (EC) meter. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be met. NMOCD was not notified 48 hours prior to closure samples being collected due to the fact they were collected before 19.15.29.5 NMAC (8/14/2018) was put into effect.

On July 11 and August 16, 2018, the excavation was completed, and confirmation samples were collected. The area around sample locations L1, L2, L6 and L7 was excavated to a depth of 1 foot bgs, Sample location L4 was excavated to a depth of 3 feet bgs, Sample location L5 was excavated to a depth of 4 feet bgs. Confirmation samples were collected from within the excavation. Confirmation samples were collected from and below the base (L1, L2, L4, L5, L6 and L7) and walls (SW1, SW2, SW3, SW4, SW5, SW6, SW7, SW8 and SW9).

A total of 26 samples were collected for laboratory analysis for total chloride using EPA Method 300.0; seven samples at locations L1, L2, L5, L6 and L7 were collected for analysis of 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.

Figure 3 shows the extent of the excavation and sample locations. All field screening and laboratory results are summarized in Table 3. 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 R360, Eddy County, 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 Austin Weyant at 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES



Lucas C. Middleton
Staff Scientist

Reviewed by:



Shawna Chubbuck
Senior Scientist

Anne Com 202H Remediation Closure Report (2RP-4515)
October 30, 2018

Page 4 of 4

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map

Figure 2: Surface Water Radius Map

Figure 3: Site and Sample Location Map

Tables:

Table 2: NMOCD Closure Criteria Justification

Table 3: Summary of Sample Results

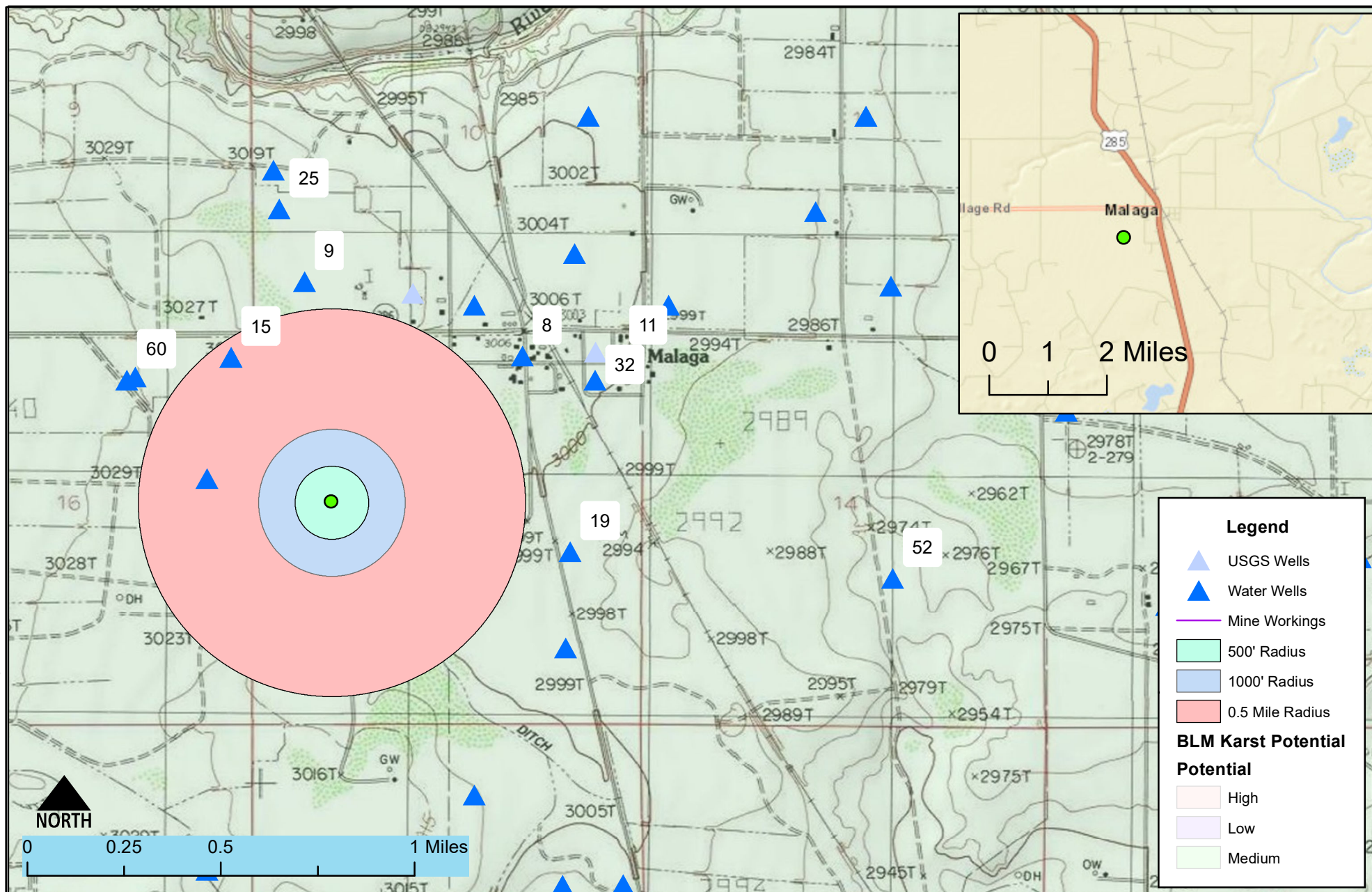
Appendices:

Appendix A: Form C141

Appendix B: Wells Report

Appendix C: Laboratory Analytical Reports

FIGURES



Regional Vicinity & Wellhead Protection Map
Anne Com #202H - Matador Resources
S: 15 T24S R28E, Eddy County New Mexico

Figure 1

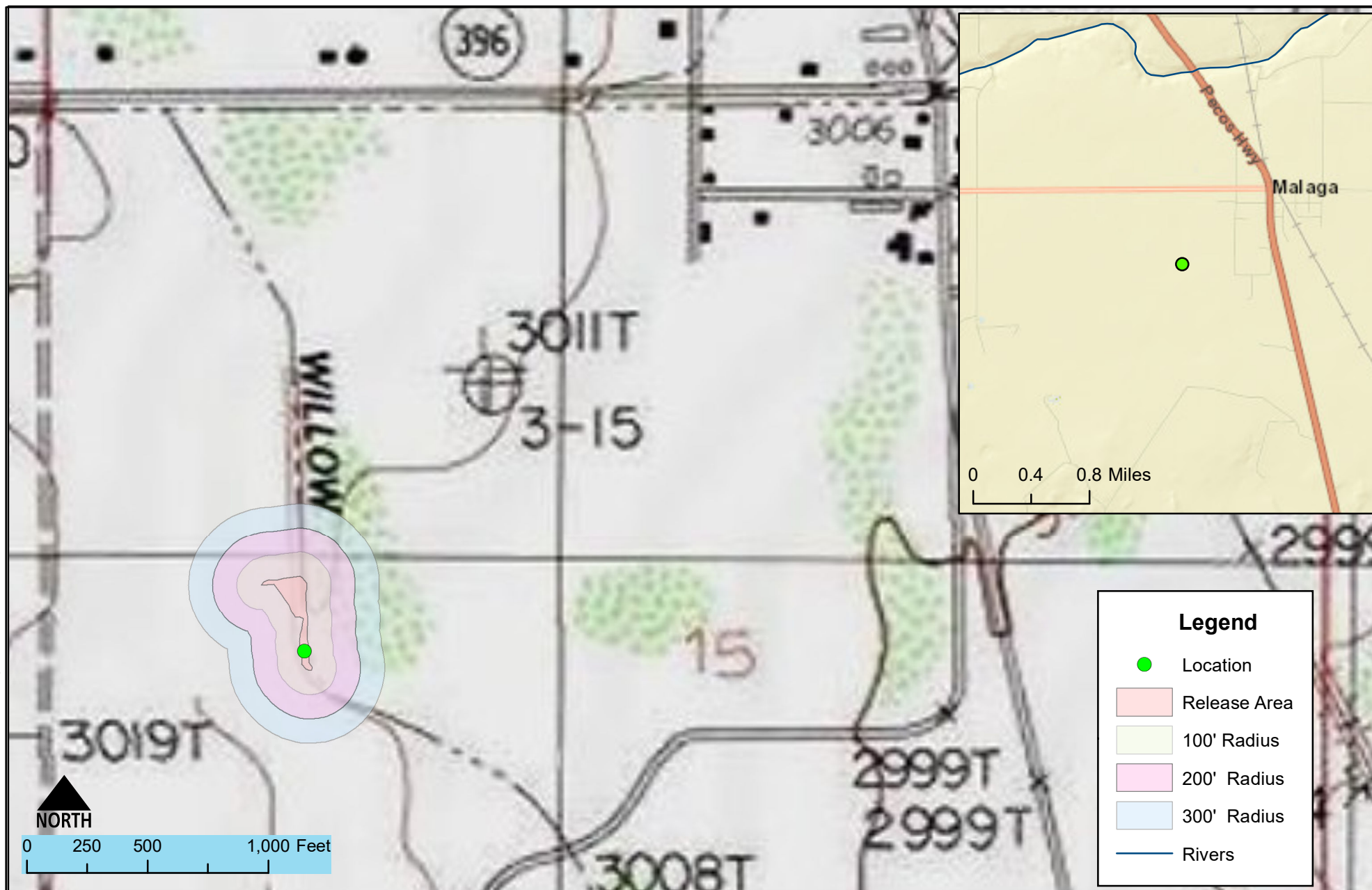
Date Saved:
10/4/2018

By: _____ Date: _____ Descr: _____
By: _____ Date: _____ Descr: _____
Copyright 2015 Souder, Miller & Associates - All Rights Reserved

Drawn Lucas Middleton
Checked _____
Approved _____



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



Surface Water Map

Anne Com #202H Matador Resources

S: 15 T24S R28E, Eddy County New Mexico

Figure 2

Date Saved:
10/30/2018

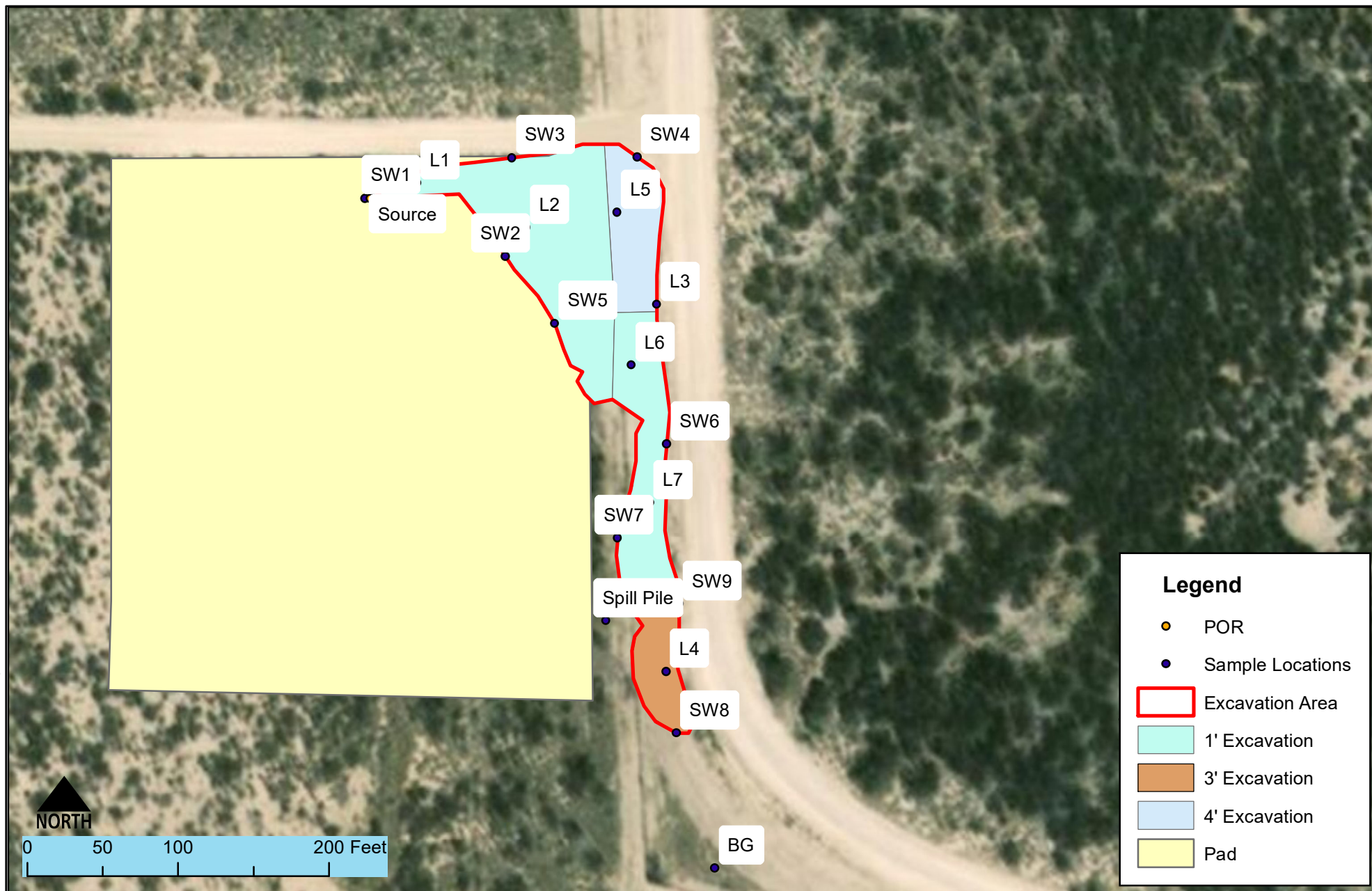
Revisions		Descr:
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

Copyright 2015 Souder, Miller & Associates - All Rights Reserved

Drawn	Lucas Middleton
Checked	_____
Approved	_____



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



Site and Sample Location Map
 Anne Com #202H - Matador Resources
 S: 15 T24S R28E, Eddy County New Mexico

Figure 3

Date Saved: 10/30/2018	By: _____	Date: _____	Revisions	Descr: _____	Drawn	Lucas Middleton
	By: _____	Date: _____		Descr: _____	Checked	_____
	Copyright 2015 Souder, Miller & Associates - All Rights Reserved				Approved	_____



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

TABLES

Table 2:
NMOCD Closure CriteriaMatador Resources
Anne COM RB #202H (2RP-4515)

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	13	USGS, OSE
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	2,703	NMOSE C-02836
Horizontal Distance to Nearest Significant Watercourse (m)	1	USGS 7.5 Topographic Map

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 3:
Summary of Sample Results

Matador Resources
Anne Com 202H (2RP-4515)

Sample Number on Figure 2	Sample Date	Depth (feet bgs)	Proposed Action	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- Field Screens (ppm)	Cl- Laboratory mg/Kg
NMOCD Closure Criteria				50	10	1000			100		600
Source	12/6/2017	0-1	Excavated	—	—	—	—	—	—	—	—
	12/6/2017	1	In-Situ	<0.210	<0.023	<4.7	<9.9	<50	<64.6	430	230
	12/6/2017	2	In-Situ	—	—	—	—	—	—	—	<30
	12/6/2017	2.5	In-Situ	—	—	—	—	—	—	—	780
L1	11/27/2017	0-1	Excavate	—	—	—	—	—	—	11,481	—
	11/27/2017	1	Excavate	—	—	—	—	—	—	>300	—
	6/21/2018	4	Sample	<0.220	<0.025	<4.9	<9.7	<48	<62.6	—	170
L2	11/27/2017	0-1	Excavated	—	—	—	—	—	—	8,758	—
	12/6/2017	1	In-Situ	—	—	—	—	—	—	—	300
	12/6/2017	2	In-Situ	—	—	—	—	—	—	—	220
	12/6/2017	3	In-Situ	—	—	—	—	—	—	—	1000
	6/21/2018	4	In-Situ	<0.225	<0.025	<5.0	<9.6	<48	<62.6	—	78
L3	11/27/2017	0-1	Excavate	—	—	—	—	—	—	9,905	—
	12/6/2017	1	In-Situ	—	—	—	—	—	—	—	280
	12/6/2017	2	In-Situ	—	—	—	—	—	—	—	88
	12/6/2017	3	In-Situ	—	—	—	—	—	—	—	110
L4	11/27/2017	0-1	Excavated	—	—	—	—	—	—	8,830	—
	12/6/2017	1	Excavated	—	—	—	—	—	—	172	270
	12/6/2017	2	Excavated	—	—	—	—	—	—	—	1200
	7/11/2018	3	Sample	—	—	—	—	—	—	—	<30
	7/11/2018	4	Sample	—	—	—	—	—	—	—	380
	7/11/2018	9	Sample	—	—	—	—	—	—	—	170
	7/11/2018	13	Sample	—	—	—	—	—	—	—	160
L5	6/21/2018	0-1	Excavated	—	—	—	—	—	—	—	—
	6/21/2018	1	Excavated	<0.222	<0.025	<4.9	<50	<10	<64.9	—	80
	6/21/2018	2	Excavated	—	—	—	—	—	—	—	160
	6/21/2018	3	Excavated	—	—	—	—	—	—	—	1200
	6/21/2018	4	Sample	<0.216	<0.024	<4.8	<9.5	<47	<61.3	—	38
L6	6/21/2018	0-1	Excavated	—	—	—	—	—	—	—	—
	6/21/2018	1	Sample	<0.213	<0.024	<4.7	<9.4	<47	<61.1	—	160
	6/21/2018	2	Sample	—	—	—	—	—	—	—	250
	6/21/2018	3	Sample	—	—	—	—	—	—	—	180
	6/21/2018	4	Sample	<0.210	<0.023	<4.7	<9.1	<46	<59.8	—	33
L7	8/16/2018	0-1	—	—	—	—	—	—	—	—	—
	8/16/2018	1	Sample	—	—	—	—	—	—	—	<20
	8/16/2018	2	Sample	—	—	—	—	—	—	—	<20
	8/16/2018	10	Sample	<0.216	<0.024	—	—	—	—	—	<20
SW1	6/21/2018	1	Sample	—	—	—	—	—	—	—	<30
SW2	6/21/2018	1	Sample	—	—	—	—	—	—	—	<30
SW3	6/21/2018	1	Sample	—	—	—	—	—	—	—	<30
SW4	6/21/2018	1	Sample	—	—	—	—	—	—	—	<30
SW5	7/11/2018	1	Sample	—	—	—	—	—	—	—	47
	6/21/2018	1	Sample	—	—	—	—	—	—	—	53
SW6	7/11/2018	1	Sample	—	—	—	—	—	—	—	200
SW7	7/11/2018	2	Sample	—	—	—	—	—	—	—	<30
SW8	7/11/2018	2	Sample	—	—	—	—	—	—	—	<30
SW9	7/11/2018	1	Sample	—	—	—	—	—	—	—	1600
	8/16/2018	1	Sample	—	—	—	—	—	—	—	<30
Spill Pile	11/27/2017	Surface	Sample	—	—	—	—	—	—	4,315	—
BG	12/6/2017	1	Sample	—	—	—	—	—	—	—	50
	12/6/2017	2	Sample	—	—	—	—	—	—	—	33
	12/6/2017	2.5	Sample	—	—	—	—	—	—	—	36

— = Not Analyzed

APPENDIX A

FORM C141

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NAB1734231291
District RP	2RP-4515
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Matador Resources	OGRID 228957
Contact Name John Hurt	Contact Telephone 972-371-5499
Contact email JHurt@matadorresources.com	Incident # (assigned by OCD) 2RP-4515
Contact mailing address 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	

Location of Release Source

Latitude 32.2189835_ Longitude_-104.0830436_
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Anne COM RB #202H	Site Type Oil Well
Date Release Discovered 11/23/17	API# (if applicable) 300-015-44417

Unit Letter	Section	Township	Range	County
E	15	24S	28E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: COLLINS, EFREN B & ZULEMA REV TRST_____)

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 checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 268	Volume Recovered (bbls) 175
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Piping from fracing operations failed. Pipe broke and release fluids on pad and bar ditch. Vac truck removed all standing fluid.

Form C-141

State of New Mexico
Oil Conservation Division

Page 2

Incident ID	NAB1734231291
District RP	2RP-4515
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? The release was over 25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? By: Casey Snow (Matador) To: (OCD District 2) By: Phone	

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 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: No containment device where used due to the nature of the land and road which aided in the containment of the release
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>John Hurt</u> Title: <u>RES Specialist</u> Signature: <u></u> Date: <u>10/31/18</u> email: <u>JHurt@matadorresources.com</u> Telephone: <u>972-371-5499</u>
<u>OCD Only</u> Received by: _____ Date: _____

Form C-141

State of New Mexico
Oil Conservation Division

Page 3

Incident ID	NAB1734231291
District RP	2RP-4515
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	~13 (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.

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. <input type="checkbox"/> Field data <input checked="" type="checkbox"/> Data table of soil contaminant concentration data <input checked="" type="checkbox"/> Depth to water determination <input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release <input type="checkbox"/> Boring or excavation logs <input type="checkbox"/> Photographs including date and GIS information <input checked="" type="checkbox"/> Topographic/Aerial maps <input checked="" type="checkbox"/> 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.

Form C-141

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAB1734231291
District RP	2RP-4515
Facility ID	
Application ID	

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

Printed Name: John Hurt Title: RES SpecialistSignature:  Date: 10/31/18email: JHurt@matadorresources.com Telephone: 972-371-5499**OCD Only**Received by: Jocelyn Harimon Date: 12/07/2022

Form C-141

State of New Mexico
Oil Conservation Division

Page 6

Incident ID	NAB1734231291
District RP	2RP-4515
Facility ID	
Application ID	

Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: John Hurt Title: RES Specialist

Signature:  Date: 10/31/18

email: JHurt@matadorresources.com Telephone: 972-371-5499

OCD Only

Received by: Jocelyn Harimon Date: 12/07/2022

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B WELLS REPORT



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02836	C	ED		2	2	2	16	24S	28E	586203	3565676*	632		15	
C 03824 POD1	CUB	ED		4	1	2	16	24S	28E	585770	3565578	810	290	60	230
C 00962	C	ED			3	3	10	24S	28E	586505	3565992*	919	63	9	54
C 00890	CUB	ED		3	3	4	10	24S	28E	587211	3565897*	1148	50		
C 00488	C	ED		2	1	2	15	24S	28E	587412	3565688*	1176	64	8	56
C 00764	CUB	ED		3	1	3	10	24S	28E	586399	3566292*	1214	118	25	93
C 03132	C	ED		1	2	4	15	24S	28E	587616	3564877*	1225	90	19	71
C 00346	C	ED			2	2	15	24S	28E	587715	3565591*	1405	90	32	58
C 02244	C	LE		3	1	2	22	24S	28E	587224	3563865*	1462	260		
C 02524 POD2	C	ED		2	2	2	15	24S	28E	587814	3565690*	1534	90	11	79

Average Depth to Water: **22 feet**

Minimum Depth: **8 feet**

Maximum Depth: **60 feet**

Record Count: 10

UTMNAD83 Radius Search (in meters):

Easting (X): 586406.51

Northing (Y): 3565077.49

Radius: 1610

*UTM location was derived from PLSS - see Help

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

10/24/18 10:35 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



[USGS Home](#)
[Contact USGS](#)
[Search USGS](#)

National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater ▼

Geographic Area:

United States ▼

GO

Click to hide News Bulletins

- [Please see news on new formats](#)
- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321336104043601

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321336104043601 24S.28E.10.343114

Available data for this site

Groundwater: Field measurements ▼

GO

Eddy County, New Mexico

Hydrologic Unit Code --

Latitude 32°13'36", Longitude 104°04'36" NAD27

Land-surface elevation 3,012 feet above NAVD88

The depth of the well is 50 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

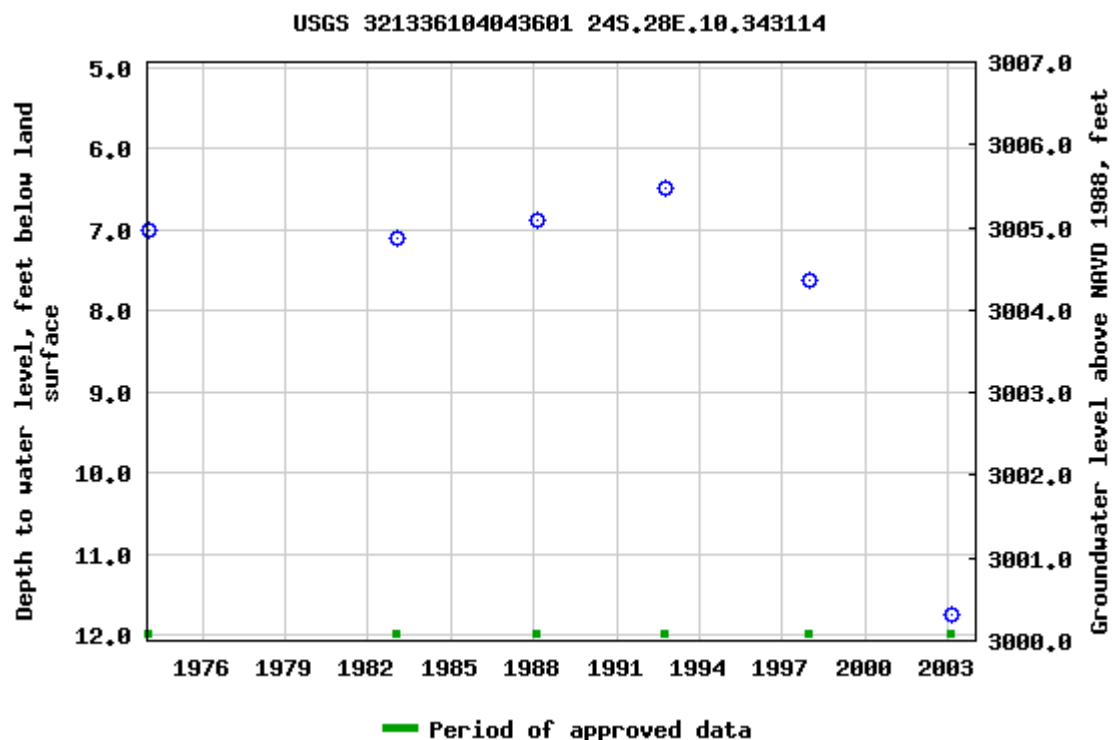
Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

[Questions about sites/data?](#)

[Feedback on this web site](#)

[Automated retrievals](#)

[Help](#)

[Data Tips](#)

[Explanation of terms](#)

[Subscribe for system changes](#)

[News](#)

[Accessibility](#)

[Plug-Ins](#)

[FOIA](#)

[Privacy](#)

[Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

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: 2018-10-22 08:27:51 EDT

1.1 0.93 nadww01





[USGS Home](#)
[Contact USGS](#)
[Search USGS](#)

National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater ▼

Geographic Area:

United States ▼

GO

Click to hide News Bulletins

- [Please see news on new formats](#)
- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321232104055301

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321232104055301 24S.28E.20.22244

Available data for this site

Groundwater: Field measurements ▼

GO

Eddy County, New Mexico

Hydrologic Unit Code --

Latitude 32°12'32", Longitude 104°05'53" NAD27

Land-surface elevation 3,039 feet above NAVD88

The depth of the well is 212 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

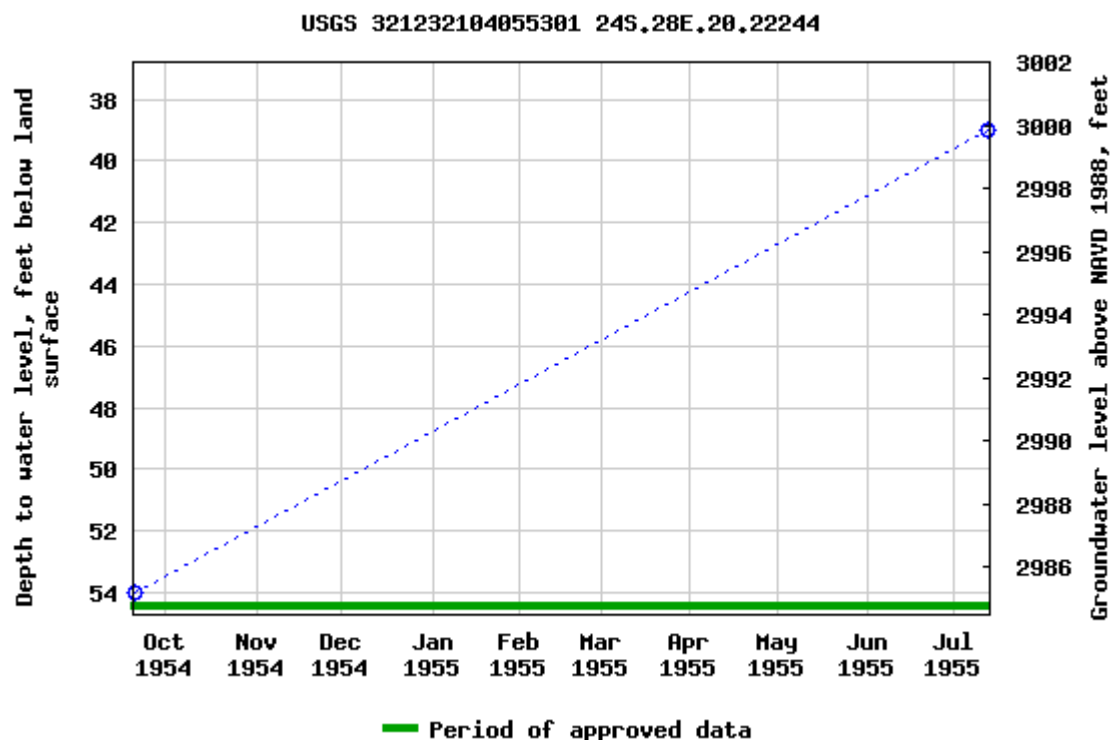
Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

[Questions about sites/data?](#)

[Feedback on this web site](#)

[Automated retrievals](#)

[Help](#)

[Data Tips](#)

[Explanation of terms](#)

[Subscribe for system changes](#)

[News](#)

[Accessibility](#)

[Plug-Ins](#)

[FOIA](#)

[Privacy](#)

[Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

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: 2018-10-22 08:27:54 EDT

1.08 0.94 nadww01

(This form is to be executed in triplicate)

WELL RECORD

Date of Receipt Permit No. C-488
Oral

Name of permittee, Carlsbad Irrigation District

Street or P. O. 303 West Fox, City and State Carlsbad, N. M.
Lots 8-9-10-11 Blk. 13 Malaga Townsite

1. Well location and description: The shallow well is located in NW 1/4, NE 1/4,
(shallow or artesian)
1/4 of Section 15, Township 24N, Range 28E; Elevation of top of
casing above sea level, feet; diameter of hole, 8 inches; total depth, 64 feet;
depth to water upon completion, 8 feet; drilling was commenced Oct. 17, 1953,
and completed Oct. 19, 1953; name of drilling contractor J. F. Kimmell
Box 49; Address, Carlsbad, N. M.; Driller's License No. applied for

2. Principal Water-bearing Strata:

	Depth in Feet		Thickness	Description of Water-bearing Formation
	From	To		
No. 1	<u>32</u>	<u>54</u>	<u>22</u>	<u>Lime</u>
No. 2				
No. 3				
No. 4				
No. 5				

3. Casing Record:

Diameter in inches	Pounds per ft.	Threads per inch	Depth of Casing or Liner Top Bottom	Feet of Casing	Type of Shoe	Perforation From To
<u>7</u>			<u>ground</u> <u>64</u>	<u>65' 6"</u>		<u>25</u> <u>55</u>

4. If above construction replaces old well to be abandoned, give location: 1/4, 1/4, 1/4
of Section, Township, Range.....; name and address of plugging contractor,
.....
date of plugging, 19.....; describe how well was plugged:

FILED
SEP 28 1955
OFFICE
GROUND WATER SUPERVISOR
ROSWELL, NEW MEXICO

[illegible]

J. J. Murren
Licensed Well Driller

Released to Imaging: 3/7/2023 9:14:02 AM

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

December 18, 2017

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Anne Com 202 H

OrderNo.: 1712483

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 8 sample(s) on 12/8/2017 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order: 1712483

Date Reported: 12/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Anne Com 202 H

Lab Order: 1712483**Lab ID:** 1712483-001**Collection Date:** 12/6/2017 12:20:00 PM**Client Sample ID:** L2-1**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	300	30		mg/Kg	20	12/15/2017 2:01:17 PM	35535

Lab ID: 1712483-002**Collection Date:** 12/6/2017 12:25:00 PM**Client Sample ID:** L2-2**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	220	30		mg/Kg	20	12/15/2017 2:38:30 PM	35535

Lab ID: 1712483-003**Collection Date:** 12/6/2017 12:40:00 PM**Client Sample ID:** L2-3**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	1000	30		mg/Kg	20	12/15/2017 2:50:55 PM	35535

Lab ID: 1712483-004**Collection Date:** 12/6/2017 1:10:00 PM**Client Sample ID:** L3-1**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	280	30		mg/Kg	20	12/15/2017 12:57:44 PM	35538

Lab ID: 1712483-005**Collection Date:** 12/6/2017 1:13:00 AM**Client Sample ID:** L3-2**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	88	30		mg/Kg	20	12/15/2017 1:10:09 PM	35538

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	Page 1 of 3
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Analytical Report

Lab Order: 1712483

Date Reported: 12/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Anne Com 202 H

Lab Order: 1712483**Lab ID:** 1712483-006**Collection Date:** 12/6/2017 1:18:00 PM**Client Sample ID:** L3-3**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	110	30		mg/Kg	20	12/15/2017 1:22:34 PM	35538

Analyst: MRA

Lab ID: 1712483-007**Collection Date:** 12/6/2017 2:00:00 PM**Client Sample ID:** L4-1**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	270	30		mg/Kg	20	12/15/2017 1:34:58 PM	35538

Analyst: MRA

Lab ID: 1712483-008**Collection Date:** 12/6/2017 2:08:00 AM**Client Sample ID:** L4-2**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	1200	75		mg/Kg	50	12/15/2017 2:49:26 PM	35538

Analyst: MRA

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

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

Page 2 of 3

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

WO#: 1712483

18-Dec-17

Client: Souder, Miller & Associates**Project:** Anne Com 202 H

Sample ID	MB-35535		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 35535		RunNo: 47816					
Prep Date:	12/15/2017		Analysis Date: 12/15/2017		SeqNo: 1531039		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-35535		SampType: Ics		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 35535		RunNo: 47816					
Prep Date:	12/15/2017		Analysis Date: 12/15/2017		SeqNo: 1531040		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.4	90	110			

Sample ID	MB-35538		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	35538		RunNo:	47827				
Prep Date:	12/15/2017		Analysis Date:	12/15/2017		SeqNo:	1531133		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-35538		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 35538		RunNo: 47827					
Prep Date:	12/15/2017		Analysis Date: 12/15/2017		SeqNo: 1531134		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

Page 3 of 3



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3973 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1712483

RcptNo: 1

Received By: Erin Melendrez

12/8/2017 9:35:00 AM

Completed By: Isaiah Ortiz

12/8/2017 10:56:31 AM

Reviewed By: ENM

12/8/17

u. n. g.

I G

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐No ☐Not Present ☒

2. Is Chain of Custody complete?

Yes ☒No ☐Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒No ☐NA ☐5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?Yes ☒No ☐NA ☐

6. Sample(s) in proper container(s)?

Yes ☒No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒No ☐

9. Was preservative added to bottles?

Yes ☐No ☒NA ☐

10. VOA vials have zero headspace?

Yes ☐No ☐No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐No ☒# of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

12. Does paperwork match bottle labels?

(Note discrepancies on chain of custody)

Yes ☒No ☐

13. Are matrices correctly identified on Chain of Custody?

Yes ☒No ☐

14. Is it clear what analyses were requested?

Yes ☒No ☐

15. Were all holding times able to be met?

Yes ☒No ☐

(If no, notify customer for authorization.)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐No ☐NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			



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

December 18, 2017

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX (505) 885-0776

RE: Anne Com 202 11

OrderNo.: 1712480

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 6 sample(s) on 12/8/2017 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1712480

Date Reported: 12/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BG-1

Project: Anne Com 202 11

Collection Date: 12/6/2017 1:42:00 PM

Lab ID: 1712480-001

Matrix: SOIL

Received Date: 12/8/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	50	30		mg/Kg	20	12/15/2017 11:19:56 AM	35535

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

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

Page 1 of 10

Analytical Report

Lab Order 1712480

Date Reported: 12/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BG-2

Project: Anne Com 202 11

Collection Date: 12/6/2017 1:45:00 PM

Lab ID: 1712480-002

Matrix: SOIL

Received Date: 12/8/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	33	30		mg/Kg	20	12/15/2017 11:32:20 AM	35535

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

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

Page 2 of 10

Analytical Report

Lab Order 1712480

Date Reported: 12/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BG-2.5

Project: Anne Com 202 11

Collection Date: 12/6/2017 1:53:00 PM

Lab ID: 1712480-003

Matrix: SOIL

Received Date: 12/8/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	36	30		mg/Kg	20	12/15/2017 12:09:34 PM	35535

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

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

Page 3 of 10

Analytical Report

Lab Order 1712480

Date Reported: 12/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: Source 1

Project: Anne Com 202 11

Collection Date: 12/6/2017 11:57:00 AM

Lab ID: 1712480-004

Matrix: SOIL

Received Date: 12/8/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	230	30		mg/Kg	20	12/15/2017 12:21:59 PM	35535
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/12/2017 6:43:34 PM	35433
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/12/2017 6:43:34 PM	35433
Surr: DNOP	85.2	70-130		%Rec	1	12/12/2017 6:43:34 PM	35433
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/11/2017 11:10:18 AM	35409
Surr: BFB	114	15-316		%Rec	1	12/11/2017 11:10:18 AM	35409
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	12/11/2017 11:10:18 AM	35409
Toluene	ND	0.047		mg/Kg	1	12/11/2017 11:10:18 AM	35409
Ethylbenzene	ND	0.047		mg/Kg	1	12/11/2017 11:10:18 AM	35409
Xylenes, Total	ND	0.093		mg/Kg	1	12/11/2017 11:10:18 AM	35409
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	12/11/2017 11:10:18 AM	35409

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

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

Page 4 of 10

Analytical Report

Lab Order 1712480

Date Reported: 12/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: Source 2

Project: Anne Com 202 11

Collection Date: 12/6/2017 12:00:00 PM

Lab ID: 1712480-005

Matrix: SOIL

Received Date: 12/8/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/15/2017 12:34:24 PM	35535

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

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

Page 5 of 10

Analytical Report

Lab Order 1712480

Date Reported: 12/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: Source 2.5

Project: Anne Com 202 11

Collection Date: 12/6/2017 12:13:00 PM

Lab ID: 1712480-006

Matrix: SOIL

Received Date: 12/8/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	780	30		mg/Kg	20	12/15/2017 12:46:49 PM	35535

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

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

Page 6 of 10

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712480
18-Dec-17

Client: Souder, Miller & Associates
Project: Anne Com 202 11

Sample ID	MB-35535	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	35535	RunNo:	47816					
Prep Date:	12/15/2017	Analysis Date:	12/15/2017	SeqNo:	1531039	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-35535	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	35535	RunNo:	47816					
Prep Date:	12/15/2017	Analysis Date:	12/15/2017	SeqNo:	1531040	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.4	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 7 of 10

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

WO#: 1712480

18-Dec-17

Client: Souder, Miller & Associates**Project:** Anne Com 202 11

Sample ID	LCS-35433		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 35433		RunNo: 47696					
Prep Date:	12/11/2017		Analysis Date: 12/12/2017		SeqNo: 1524952		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.7	73.2	114			
Surr: DNOP	4.4		5.000		88.8	70	130			

Sample ID	MB-35433	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 35433			RunNo: 47696					
Prep Date:	12/11/2017	Analysis Date: 12/12/2017			SeqNo: 1524953		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	9.2		10.00		91.9	70	130			

Sample ID	1712480-004AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Source 1		Batch ID: 35433		RunNo: 47696					
Prep Date:	12/11/2017		Analysis Date: 12/12/2017		SeqNo: 1525778		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	9.3	46.43	0	84.7	55.8	125			
Surr: DNOP	3.7		4.643		80.0	70	130			

Sample ID	1712480-004AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Source 1		Batch ID: 35433		RunNo: 47696					
Prep Date:	12/11/2017		Analysis Date: 12/12/2017		SeqNo: 1525779		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.2	46.08	0	92.6	55.8	125	8.14	20	
Surr: DNOP	4.2		4.608		90.6	70	130	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

Page 8 of 10

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

WO#: 1712480

18-Dec-17

Client: Souder, Miller & Associates**Project:** Anne Com 202 11

Sample ID MB-35409	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 35409		RunNo: 47674							
Prep Date: 12/8/2017	Analysis Date: 12/11/2017		SeqNo: 1523843		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	1100		1000		110	15	316			

Sample ID LCS-35409	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 35409		RunNo: 47674							
Prep Date: 12/8/2017	Analysis Date: 12/11/2017		SeqNo: 1523844		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	75.9	131			
Surr: BFB	1200		1000		122	15	316			

Sample ID 1712480-004AMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: Source 1	Batch ID: 35409		RunNo: 47674							
Prep Date: 12/8/2017	Analysis Date: 12/11/2017		SeqNo: 1523847		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.6	22.87	0	111	77.8	128			
Surr: BFB	1100		914.9		124	15	316			

Sample ID 1712480-004AMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: Source 1	Batch ID: 35409		RunNo: 47674							
Prep Date: 12/8/2017	Analysis Date: 12/11/2017		SeqNo: 1523848		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	24.22	0	109	77.8	128	4.03	20	
Surr: BFB	1200		969.0		128	15	316	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

Page 9 of 10

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

WO#: 1712480

18-Dec-17

Client: Souder, Miller & Associates**Project:** Anne Com 202 11

Sample ID	MB-35409		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS		Batch ID:	35409		RunNo:	47674				
Prep Date:	12/8/2017		Analysis Date:	12/11/2017		SeqNo:	1523870		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	1.0		1.000		104	80	120				

Sample ID	LCS-35409			SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS			Batch ID:	35409		RunNo:	47674			
Prep Date:	12/8/2017			Analysis Date:	12/11/2017		SeqNo:	1523871		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	93.9	77.3	128				
Toluene	0.92	0.050	1.000	0	92.3	79.2	125				
Ethylbenzene	0.87	0.050	1.000	0	87.3	80.7	127				
Xylenes, Total	2.6	0.10	3.000	0	85.7	81.6	129				
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120				

Qualifiers:

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

Page 10 of 10



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: 1712480

RcptNo: 1

Received By: Erin Melendrez

12/8/2017 9:35:00 AM

Completed By: Isaiah Ortiz

12/8/2017 10:39:07 AM

Reviewed By: ENH

12/8/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

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

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	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

July 05, 2018

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Anne Com 202H

OrderNo.: 1806E49

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 16 sample(s) on 6/23/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-4

Project: Anne Com 202H

Collection Date: 6/21/2018 10:00:00 AM

Lab ID: 1806E49-001

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	170	30		mg/Kg	20	7/1/2018 6:18:48 PM	38987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/27/2018 3:15:02 PM	38892
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/27/2018 3:15:02 PM	38892
Surr: DNOP	90.8	70-130		%Rec	1	6/27/2018 3:15:02 PM	38892
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/26/2018 10:04:14 PM	38869
Surr: BFB	80.3	15-316		%Rec	1	6/26/2018 10:04:14 PM	38869
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	6/26/2018 10:04:14 PM	38869
Benzene	ND	0.025		mg/Kg	1	6/26/2018 10:04:14 PM	38869
Toluene	ND	0.049		mg/Kg	1	6/26/2018 10:04:14 PM	38869
Ethylbenzene	ND	0.049		mg/Kg	1	6/26/2018 10:04:14 PM	38869
Xylenes, Total	ND	0.098		mg/Kg	1	6/26/2018 10:04:14 PM	38869
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/26/2018 10:04:14 PM	38869

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

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

Page 1 of 22

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L2-4

Project: Anne Com 202H

Collection Date: 6/21/2018 10:20:00 AM

Lab ID: 1806E49-002

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	78	30		mg/Kg	20	7/1/2018 6:31:13 PM	38987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/27/2018 3:37:26 PM	38892
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/27/2018 3:37:26 PM	38892
Surr: DNOP	84.9	70-130		%Rec	1	6/27/2018 3:37:26 PM	38892
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/26/2018 10:27:38 PM	38869
Surr: BFB	80.4	15-316		%Rec	1	6/26/2018 10:27:38 PM	38869
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	6/26/2018 10:27:38 PM	38869
Benzene	ND	0.025		mg/Kg	1	6/26/2018 10:27:38 PM	38869
Toluene	ND	0.050		mg/Kg	1	6/26/2018 10:27:38 PM	38869
Ethylbenzene	ND	0.050		mg/Kg	1	6/26/2018 10:27:38 PM	38869
Xylenes, Total	ND	0.10		mg/Kg	1	6/26/2018 10:27:38 PM	38869
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/26/2018 10:27:38 PM	38869

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

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

Page 2 of 22

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L5-1

Project: Anne Com 202H

Collection Date: 6/21/2018 10:50:00 AM

Lab ID: 1806E49-003

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	80	30		mg/Kg	20	7/1/2018 6:43:38 PM	38987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/27/2018 3:59:36 PM	38892
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/27/2018 3:59:36 PM	38892
Surr: DNOP	110	70-130		%Rec	1	6/27/2018 3:59:36 PM	38892
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/27/2018 12:00:57 AM	38869
Surr: BFB	77.3	15-316		%Rec	1	6/27/2018 12:00:57 AM	38869
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	6/27/2018 12:00:57 AM	38869
Benzene	ND	0.025		mg/Kg	1	6/27/2018 12:00:57 AM	38869
Toluene	ND	0.049		mg/Kg	1	6/27/2018 12:00:57 AM	38869
Ethylbenzene	ND	0.049		mg/Kg	1	6/27/2018 12:00:57 AM	38869
Xylenes, Total	ND	0.099		mg/Kg	1	6/27/2018 12:00:57 AM	38869
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	6/27/2018 12:00:57 AM	38869

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

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

Page 3 of 22

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L5-2

Project: Anne Com 202H

Collection Date: 6/21/2018 11:00:00 AM

Lab ID: 1806E49-004

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	160	30		mg/Kg	20	7/1/2018 6:56:03 PM	38987

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

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

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L5-3

Project: Anne Com 202H

Collection Date: 6/21/2018 11:10:00 AM

Lab ID: 1806E49-005

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	1200	30		mg/Kg	20	7/1/2018 7:08:28 PM	38987

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

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

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L5-4

Project: Anne Com 202H

Collection Date: 6/21/2018 11:15:00 AM

Lab ID: 1806E49-006

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	38	30		mg/Kg	20	7/1/2018 7:20:52 PM	38987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/27/2018 4:22:04 PM	38892
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/27/2018 4:22:04 PM	38892
Surr: DNOP	94.1	70-130		%Rec	1	6/27/2018 4:22:04 PM	38892
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/27/2018 12:24:17 AM	38869
Surr: BFB	76.6	15-316		%Rec	1	6/27/2018 12:24:17 AM	38869
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	6/27/2018 12:24:17 AM	38869
Benzene	ND	0.024		mg/Kg	1	6/27/2018 12:24:17 AM	38869
Toluene	ND	0.048		mg/Kg	1	6/27/2018 12:24:17 AM	38869
Ethylbenzene	ND	0.048		mg/Kg	1	6/27/2018 12:24:17 AM	38869
Xylenes, Total	ND	0.096		mg/Kg	1	6/27/2018 12:24:17 AM	38869
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	6/27/2018 12:24:17 AM	38869

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

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

Page 6 of 22

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L6-1

Project: Anne Com 202H

Collection Date: 6/21/2018 12:00:00 PM

Lab ID: 1806E49-007

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	160	30		mg/Kg	20	7/1/2018 7:58:05 PM	38987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/27/2018 4:44:15 PM	38892
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/27/2018 4:44:15 PM	38892
Surr: DNOP	92.7	70-130		%Rec	1	6/27/2018 4:44:15 PM	38892
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/27/2018 12:47:30 AM	38869
Surr: BFB	78.0	15-316		%Rec	1	6/27/2018 12:47:30 AM	38869
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	6/27/2018 12:47:30 AM	38869
Benzene	ND	0.024		mg/Kg	1	6/27/2018 12:47:30 AM	38869
Toluene	ND	0.047		mg/Kg	1	6/27/2018 12:47:30 AM	38869
Ethylbenzene	ND	0.047		mg/Kg	1	6/27/2018 12:47:30 AM	38869
Xylenes, Total	ND	0.095		mg/Kg	1	6/27/2018 12:47:30 AM	38869
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	6/27/2018 12:47:30 AM	38869

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

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

Page 7 of 22

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L6-2

Project: Anne Com 202H

Collection Date: 6/21/2018 12:05:00 PM

Lab ID: 1806E49-008

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	250	30		mg/Kg	20	7/1/2018 8:10:29 PM	38987

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

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

Page 8 of 22

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L6-3

Project: Anne Com 202H

Collection Date: 6/21/2018 12:10:00 PM

Lab ID: 1806E49-009

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	180	30		mg/Kg	20	7/1/2018 8:47:42 PM	38987

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

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

Page 9 of 22

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L6-4

Project: Anne Com 202H

Collection Date: 6/21/2018 12:20:00 PM

Lab ID: 1806E49-010

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	33	30		mg/Kg	20	7/1/2018 9:00:07 PM	38987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	6/27/2018 5:06:35 PM	38892
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/27/2018 5:06:35 PM	38892
Surr: DNOP	97.6	70-130		%Rec	1	6/27/2018 5:06:35 PM	38892
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/27/2018 1:10:57 AM	38874
Surr: BFB	79.1	15-316		%Rec	1	6/27/2018 1:10:57 AM	38874
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.093		mg/Kg	1	6/27/2018 1:10:57 AM	38874
Benzene	ND	0.023		mg/Kg	1	6/27/2018 1:10:57 AM	38874
Toluene	ND	0.047		mg/Kg	1	6/27/2018 1:10:57 AM	38874
Ethylbenzene	ND	0.047		mg/Kg	1	6/27/2018 1:10:57 AM	38874
Xylenes, Total	ND	0.093		mg/Kg	1	6/27/2018 1:10:57 AM	38874
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/27/2018 1:10:57 AM	38874

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

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

Page 10 of 22

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BG-P

Project: Anne Com 202H

Collection Date: 6/21/2018 12:40:00 PM

Lab ID: 1806E49-011

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	4000	150		mg/Kg	100	7/2/2018 8:12:20 PM	38987

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

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

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW1

Project: Anne Com 202H

Collection Date: 6/21/2018 1:00:00 PM

Lab ID: 1806E49-012

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	30		mg/Kg	20	7/1/2018 9:24:56 PM	38987

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

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

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW2

Project: Anne Com 202H

Collection Date: 6/21/2018 1:20:00 PM

Lab ID: 1806E49-013

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	30		mg/Kg	20	7/1/2018 9:37:20 PM	38987

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

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

Page 13 of 22

Analytical Report

Lab Order **1806E49**

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller & Associates**Client Sample ID:** SW3**Project:** Anne Com 202H**Collection Date:** 6/21/2018 1:40:00 AM**Lab ID:** 1806E49-014**Matrix:** SOIL**Received Date:** 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	30		mg/Kg	20	7/1/2018 9:49:45 PM	38987

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

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

Page 14 of 22

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

CLIENT: Souder, Miller & Associates

Project: Anne Com 202H

Lab ID: 1806E49-015

Client Sample ID: SW4

Collection Date: 6/21/2018 2:00:00 PM

Received Date: 6/23/2018 10:40:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	43	30		mg/Kg	20	7/1/2018 10:02:10 PM	38987

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

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

Analytical Report

Lab Order 1806E49

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW5

Project: Anne Com 202H

Collection Date: 6/21/2018 2:05:00 PM

Lab ID: 1806E49-016

Matrix: SOIL

Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	53	30		mg/Kg	20	7/1/2018 10:14:35 PM	38987

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1806E4905-Jul-18

Client: Souder, Miller & Associates
Project: Anne Com 202H

Sample ID	MB-38987	SampType:	mblk	TestCode:	EPA Method 300.0: Anions						
Client ID:	PBS	Batch ID:	38987	RunNo:	52408						
Prep Date:	6/29/2018	Analysis Date:	7/1/2018	SeqNo:	1718190	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-38987	SampType:	lcs	TestCode:	EPA Method 300.0: Anions						
Client ID:	LCSS	Batch ID:	38987	RunNo:	52408						
Prep Date:	6/29/2018	Analysis Date:	7/1/2018	SeqNo:	1718191	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	93.2	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 Detection Limit

W Sample container temperature is out of limit as specified

Page 17 of 22

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **1806E49****05-Jul-18****Client:** Souder, Miller & Associates**Project:** Anne Com 202H

Sample ID LCS-38892	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 38892			RunNo: 52270						
Prep Date: 6/26/2018	Analysis Date: 6/27/2018			SeqNo: 1713083		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.2	70	130			
Surr: DNOP	4.1		5.000		81.4	70	130			

Sample ID MB-38892	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 38892			RunNo: 52270						
Prep Date: 6/26/2018	Analysis Date: 6/27/2018			SeqNo: 1713084		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	9.1		10.00		91.1	70	130			

Qualifiers:

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

Page 18 of 22

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **1806E49****05-Jul-18****Client:** Souder, Miller & Associates**Project:** Anne Com 202H

Sample ID MB-38874	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 38874		RunNo: 52243							
Prep Date: 6/25/2018	Analysis Date: 6/26/2018		SeqNo: 1712080		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	870		1000		86.8	15	316			

Sample ID LCS-38874	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 38874		RunNo: 52243							
Prep Date: 6/25/2018	Analysis Date: 6/26/2018		SeqNo: 1712081		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	75.9	131			
Surr: BFB	1000		1000		104	15	316			

Sample ID 1806E49-010AMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: L6-4	Batch ID: 38874		RunNo: 52243							
Prep Date: 6/25/2018	Analysis Date: 6/26/2018		SeqNo: 1712083		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.7	23.36	0	121	77.8	128			
Surr: BFB	900		934.6		96.3	15	316			

Sample ID 1806E49-010AMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: L6-4	Batch ID: 38874		RunNo: 52243							
Prep Date: 6/25/2018	Analysis Date: 6/26/2018		SeqNo: 1712084		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.8	24.18	0	111	77.8	128	4.88	20	
Surr: BFB	920		967.1		95.1	15	316	0	0	

Sample ID MB-38869	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 38869		RunNo: 52243							
Prep Date: 6/25/2018	Analysis Date: 6/26/2018		SeqNo: 1712088		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	850		1000		85.4	15	316			

Sample ID LCS-38869	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 38869		RunNo: 52243							
Prep Date: 6/25/2018	Analysis Date: 6/26/2018		SeqNo: 1712089		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 19 of 22

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1806E49
05-Jul-18

Client: Souder, Miller & Associates
Project: Anne Com 202H

Sample ID	LCS-38869	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	38869	RunNo:	52243					
Prep Date:	6/25/2018	Analysis Date:	6/26/2018	SeqNo:	1712089	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.6	75.9	131			
Surr: BFB	980		1000		98.4	15	316			

Qualifiers:

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

Page 20 of 22

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **1806E49****05-Jul-18****Client:** Souder, Miller & Associates**Project:** Anne Com 202H

Sample ID MB-38874	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 38874			RunNo: 52243						
Prep Date: 6/25/2018	Analysis Date: 6/26/2018			SeqNo: 1712109		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID LCS-38874	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 38874			RunNo: 52243						
Prep Date: 6/25/2018	Analysis Date: 6/26/2018			SeqNo: 1712110		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.88	0.10	1.000	0	87.9	70.1	121			
Benzene	0.95	0.025	1.000	0	95.4	77.3	128			
Toluene	0.96	0.050	1.000	0	96.1	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.8	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID MB-38869	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 38869			RunNo: 52243						
Prep Date: 6/25/2018	Analysis Date: 6/26/2018			SeqNo: 1712122		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID LCS-38869	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 38869			RunNo: 52243						
Prep Date: 6/25/2018	Analysis Date: 6/26/2018			SeqNo: 1712123		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.95	0.10	1.000	0	94.9	70.1	121			
Benzene	0.96	0.025	1.000	0	96.2	77.3	128			
Toluene	0.98	0.050	1.000	0	98.3	79.2	125			
Ethylbenzene	0.96	0.050	1.000	0	96.4	80.7	127			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1806E49
05-Jul-18

Client: Souder, Miller & Associates
Project: Anne Com 202H

Sample ID	LCS-38869	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	38869	RunNo:	52243					
Prep Date:	6/25/2018	Analysis Date:	6/26/2018	SeqNo:	1712123	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	3.0	0.10	3.000	0	98.7	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 22 of 22
D Sample Diluted Due to Matrix	E Value above quantitation range	
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	
ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
PQL Practical Quantitative Limit	RL Reporting Detection Limit	
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified	



Hall Environmental Analysis Laboratory
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: 1806E49

RcptNo: 1

Received By: Andy Freeman

6/23/2018 10:40:00 AM

Completed By: Isaiah Ortiz

6/25/2018 7:59:31 AM

Reviewed By: ENM

6/25/18

LB: MW 6/25/18

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: 12
(2 or >12 unless noted)
Adjusted? no
Checked by: MW 6/25/18

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	38	Good	Yes			



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

July 25, 2018

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Anne Com 202H

OrderNo.: 1807706

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 9 sample(s) on 7/13/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order: 1807706

Date Reported: 7/25/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Lab Order: 1807706

Project: Anne Com 202H

Lab ID: 1807706-001

Collection Date: 7/11/2018 11:18:00 AM

Client Sample ID: SW8-2

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	ND	30		mg/Kg	20	7/24/2018 2:09:46 AM	39266
----------	----	----	--	-------	----	----------------------	-------

Lab ID: 1807706-002

Collection Date: 7/11/2018 11:56:00 AM

Client Sample ID: L4-3

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: CJS

Chloride	ND	30		mg/Kg	20	7/18/2018 10:47:02 AM	39266
----------	----	----	--	-------	----	-----------------------	-------

Lab ID: 1807706-003

Collection Date: 7/11/2018 11:58:00 AM

Client Sample ID: L4-4

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: CJS

Chloride	380	30		mg/Kg	20	7/18/2018 10:59:27 AM	39266
----------	-----	----	--	-------	----	-----------------------	-------

Lab ID: 1807706-004

Collection Date: 7/11/2018 12:28:00 PM

Client Sample ID: L4-9

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: CJS

Chloride	170	30		mg/Kg	20	7/18/2018 11:11:51 AM	39266
----------	-----	----	--	-------	----	-----------------------	-------

Lab ID: 1807706-005

Collection Date: 7/11/2018 12:47:00 PM

Client Sample ID: L4-13

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: CJS

Chloride	160	30		mg/Kg	20	7/18/2018 11:49:04 AM	39266
----------	-----	----	--	-------	----	-----------------------	-------

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

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

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

Page 1 of 3

Analytical Report

Lab Order: 1807706

Date Reported: 7/25/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Lab Order: 1807706

Project: Anne Com 202H

Lab ID: 1807706-006

Collection Date: 7/11/2018 2:45:00 PM

Client Sample ID: SW9-1

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: SRM

Chloride	1600	75		mg/Kg	50	7/19/2018 7:13:39 PM	39266
----------	------	----	--	-------	----	----------------------	-------

Lab ID: 1807706-007

Collection Date: 7/11/2018 2:01:00 PM

Client Sample ID: SW5-1

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: CJS

Chloride	47	30		mg/Kg	20	7/18/2018 12:13:53 PM	39266
----------	----	----	--	-------	----	-----------------------	-------

Lab ID: 1807706-008

Collection Date: 7/11/2018 1:24:00 PM

Client Sample ID: SW6-1

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: CJS

Chloride	200	30		mg/Kg	20	7/18/2018 12:51:06 PM	39266
----------	-----	----	--	-------	----	-----------------------	-------

Lab ID: 1807706-009

Collection Date: 7/11/2018 3:05:00 PM

Client Sample ID: SW7-2 West

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: CJS

Chloride	ND	30		mg/Kg	20	7/18/2018 1:03:31 PM	39266
----------	----	----	--	-------	----	----------------------	-------

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

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

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

Page 2 of 3

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1807706
25-Jul-18

Client: Souder, Miller & Associates
Project: Anne Com 202H

Sample ID	MB-39266	SampType:	mblk	TestCode:	EPA Method 300.0: Anions						
Client ID:	PBS	Batch ID:	39266	RunNo:	52830						
Prep Date:	7/18/2018	Analysis Date:	7/18/2018	SeqNo:	1735435	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-39266	SampType:	lcs	TestCode:	EPA Method 300.0: Anions						
Client ID:	LCSS	Batch ID:	39266	RunNo:	52830						
Prep Date:	7/18/2018	Analysis Date:	7/18/2018	SeqNo:	1735436	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	95.9	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 Detection Limit

W Sample container temperature is out of limit as specified

Page 3 of 3



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: 1807706

RcptNo: 1

Received By: Isaiah Ortiz 7/13/2018 8:50:00 AM

Completed By: Isaiah Ortiz 7/13/2018 10:19:59 AM

Reviewed By: ENM 7/13/18

CB: IO 7/13/18

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: IO
(<2 or >12 unless noted)
Adjusted?
Checked by: 7/13/18

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			



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

August 31, 2018

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Anne Com

OrderNo.: 1808D82

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/22/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1808D82

Date Reported: 8/31/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L7-1

Project: Anne Com

Collection Date: 8/16/2018 11:00:00 AM

Lab ID: 1808D82-001

Matrix: SOIL

Received Date: 8/22/2018 9:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: CLP
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/30/2018	40056

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

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

Page 1 of 7

Analytical Report

Lab Order 1808D82

Date Reported: 8/31/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L7-2

Project: Anne Com

Collection Date: 8/16/2018 11:20:00 AM

Lab ID: 1808D82-002

Matrix: SOIL

Received Date: 8/22/2018 9:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: CLP
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/30/2018	40056

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	Page 2 of 7
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Analytical Report

Lab Order 1808D82

Date Reported: 8/31/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L7-10

Project: Anne Com

Collection Date: 8/16/2018 11:30:00 AM

Lab ID: 1808D82-003

Matrix: SOIL

Received Date: 8/22/2018 9:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: CLP
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/30/2018	40056
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	8/28/2018 5:07:25 PM	40017
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	8/23/2018 5:44:14 PM	39931
Toluene	ND	0.048		mg/Kg	1	8/23/2018 5:44:14 PM	39931
Ethylbenzene	ND	0.048		mg/Kg	1	8/23/2018 5:44:14 PM	39931
Xylenes, Total	ND	0.096		mg/Kg	1	8/23/2018 5:44:14 PM	39931
Surr: 4-Bromofluorobenzene	114	80-120		%Rec	1	8/23/2018 5:44:14 PM	39931

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	Page 3 of 7
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Analytical Report

Lab Order 1808D82

Date Reported: 8/31/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW9-1

Project: Anne Com

Collection Date: 8/16/2018 12:10:00 PM

Lab ID: 1808D82-004

Matrix: SOIL

Received Date: 8/22/2018 9:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	8/28/2018 6:09:27 PM	40037

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	Page 4 of 7
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

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

WO#: 1808D82

31-Aug-18

Client: Souder, Miller & Associates**Project:** Anne Com

Sample ID	MB-40017	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	40017	RunNo:	53754					
Prep Date:	8/28/2018	Analysis Date:	8/28/2018	SeqNo:	1774320	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-40017	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	40017	RunNo:	53754					
Prep Date:	8/28/2018	Analysis Date:	8/28/2018	SeqNo:	1774322	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

Sample ID	MB-40037	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	40037	RunNo:	53754					
Prep Date:	8/28/2018	Analysis Date:	8/28/2018	SeqNo:	1774371	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-40037	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	40037	RunNo:	53754					
Prep Date:	8/28/2018	Analysis Date:	8/28/2018	SeqNo:	1774372	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **1808D82****31-Aug-18****Client:** Souder, Miller & Associates**Project:** Anne Com

Sample ID MB-40056	SampType: MBLK			TestCode: EPA Method 418.1: TPH						
Client ID: PBS	Batch ID: 40056			RunNo: 53834						
Prep Date: 8/29/2018	Analysis Date: 8/30/2018			SeqNo: 1776276		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID LCS-40056	SampType: LCS			TestCode: EPA Method 418.1: TPH						
Client ID: LCSS	Batch ID: 40056			RunNo: 53834						
Prep Date: 8/29/2018	Analysis Date: 8/30/2018			SeqNo: 1776277		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	94	20	100.0	0	93.6	84.7	129			

Sample ID LCSD-40056	SampType: LCSD			TestCode: EPA Method 418.1: TPH						
Client ID: LCSS02	Batch ID: 40056			RunNo: 53834						
Prep Date: 8/29/2018	Analysis Date: 8/30/2018			SeqNo: 1776278		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	95	20	100.0	0	94.9	84.7	129	1.46	20	

Qualifiers:

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **1808D82****31-Aug-18****Client:** Souder, Miller & Associates**Project:** Anne Com

Sample ID MB-39931	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 39931		RunNo: 53673							
Prep Date: 8/22/2018	Analysis Date: 8/23/2018		SeqNo: 1770004		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	1.1		1.000		106	80	120			

Sample ID LCS-39931	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 39931		RunNo: 53673							
Prep Date: 8/22/2018	Analysis Date: 8/23/2018		SeqNo: 1770005		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	105	77.3	128			
Toluene	1.1	0.050	1.000	0	108	79.2	125			
Ethylbenzene	1.1	0.050	1.000	0	108	80.7	127			
Xylenes, Total	3.3	0.10	3.000	0	109	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Qualifiers:

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



Hall Environmental Analysis Laboratory
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: 1808D82

RcptNo: 1

Received By: Jazzmine Burkhead

8/22/2018 9:05:00 AM

Completed By: Ashley Gallegos

8/22/2018 2:16:10 PM

Reviewed By: ENM

8/22/18 Labeled by: JO 8/22/18

Chain of Custody1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐2. How was the sample delivered? CourierLog In3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐5. Sample(s) in proper container(s)? Yes ☒ No ☐6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒10. Were any sample containers received broken? Yes ☐ No ☒11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

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

(If no, notify customer for authorization.)

of preserved bottles checked for pH: 10
(≤2 or >12 unless noted)

Adjusted?

8/22/18

Checked by: _____

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	4.7	Good	Yes			

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

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

CONDITIONS

Action 164837

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 164837
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	3/7/2023