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

May 14, 2019

#5E27960 – BG6

NMOCD District 2
811 S. First St.
Artesia, NM 88210

SUBJECT: Remediation Closure Report for the Janie Conner Tank Battery Release (2RP-5289), Eddy County New Mexico

To Whom it May Concern:

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 Janie Conner Tank Battery. The site is in Unit A, Section 14, 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	Janie Conner Tank Battery	Company	Matador Resources
API Number	N/A	Location	32.2219634, -104.0504256
Incident Number	2RP-5289		
Estimated Date of Release	2/19/2019	Date Reported to NMOCD	2/20/2019
Land Owner	Private	Reported To	NMOCD District II
Source of Release	Equipment Failure at the Heater Treater		
Released Volume	24 bbls	Released Material	Crude Oil w/ traces of Produced Water
Recovered Volume	6 bbls	Net Release	18 bbls
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	2/19/2019 4/2/2019 4/25/2019 4/26/2019		

1.0 Background

On February 19, 2019, a release was discovered at the Janie Conner Tank Battery due to equipment failure at the heater treater. The release traveled down surface lines to the west and eventually to the buried production pipeline to the buried pipeline right-of-way (ROW) directly south of location. Initial response activities were conducted by the operator, and included source elimination, site security and stabilization activities which led to the recovery six barrels of standing fluid that was disposed of at an NMOCD approved facility. Figures 1 and 2 illustrate the vicinity and site location, Figure 3 illustrates the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Janie Conner Tank Battery is located in Malaga, New Mexico on privately-owned land at an elevation of approximately 2981 feet above mean sea level (amsl).

Based upon New Mexico Office of the State Engineer (NMOSE) data (Appendix B), depth to groundwater in the area is estimated to be 35-40 feet below grade surface (bgs). There are five known water sources within ½-mile of the location, according to NMOSE online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 2/22/2019) and the USGS online water well database. The nearest significant watercourse is an unnamed canal, located approximately 230 feet to the north. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it lies within a sensitive area as described in 19.15.29.12.C(4) NMAC; however, this does not change the NMOCD Closure Criteria Stands for this site.

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 and NMOCD District II approved background chloride concentrations.

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

3.0 Release Characterization and Remediation Activities

On February 19, 2019, SMA personnel arrived on site in response to the release associated with Janie Conner Tank Battery. SMA performed site delineation activities by collecting soil samples around the release site and throughout the visibly stained area. A total of three sample locations (L1-L3) were investigated using a hand-auger, to depths up to 2 feet bgs. A minimum of two samples were collected at each sampling location. A total of eight samples were collected for laboratory analysis of total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. 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 initial samples are depicted on Figure 4A.

Because the site is located in an irrigated river valley which has been characterized by naturally high chloride concentrations in the past, SMA returned to the location to establish several background locations to document this trend. On April 2nd, SMA conducted a background sampling event, establishing four background sample locations up- and down-gradient of the site, to depths up to 10 and 12 feet bgs (JC, JC2, JC3 and JC4). Thirteen of the collected samples were submitted for laboratory analysis for total chloride using EPA Method 300.0. Resulting chloride concentrations varied from 130 mg/kg to 9900 mg/kg (Table 3 & Figure 3).

Prior to the construction of the Janie Conner Tank Battery, SMA conducted a baseline sampling event for Matador Resources in late 2016. Three sample locations were established on undisturbed land during this sampling event (P1-P3; Figure 3) and returned the chloride concentrations of 170 mg/kg, 1600 mg/kg and 1800 mg/kg, respectively (Table 3). The data was a portion of a collective report on the Background Soil Data around Malaga/Loving, Eddy County, New Mexico that has been previously submitted to NMOCD in conjunction with other projects (Appendix F).

The data collected from the background and baseline sampling events was discussed in a meeting with NMOCD District II in Artesia, NM on April 15th, 2019. During the meeting, it was discussed that several soil types and soil type mixtures in the Loving and Malaga area will return high sodium chloride levels in the absence of oil and gas production activities. This is not only naturally occurring in several saline soil types in the area, but also a result of poor agricultural and irrigation practices in the area over the past century. This also explains why samples at different depths and different sample locations can range from such a low level to drastically higher. At the conclusion of the meeting, it was understood by SMA that NMOCD would accept an adjusted closure criteria of 1800 mg/kg for chloride reflective of the baseline samples collected prior to oil and gas activity at the location of the Janie Conner Tank Battery.

On April 25 and 26, 2019, SMA returned to the site to oversee the excavation and hydro excavation of contaminated soil. Any part of the release area what was within 2 feet of buried or surface pipelines was removed using hydro-excavation, as per Matador's safety policy. SMA guided the excavation activities by collecting confirmation soil samples for field screening. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria specific to the location would be met. The area around sample location L1 was excavated to 3 feet bgs, while the remainder of the release area (represented by L2 and L3) was excavated to a depth of 2 feet bgs. NMOCD was notified on April 23, 2019 that closure samples were expected to be collected in two (2) business days.

The confirmation samples were collected from within the excavation in accordance with a systematic sampling approach detailed in Appendix C. This systematic method meets the EPAs data quality assessment standards (DQA) for composite sampling as defined by (Myers 1997). Confirmation samples were comprised of five-point composites of the base (BH1-BH4) and walls (SW1 – SW5).

Laboratory results indicated that the sample area represented by location BH2 exceeded the site-specific standard for chloride. On May 5, 2019, SMA returned to the location to collect another composite sample from the bottom of the excavation. No further excavation was required.

A total of nine samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Laboratory samples were collected in accordance with the sampling protocol included in Appendix C. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D).

Figure 4B shows the extent of the excavation and confirmation sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

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 an NMOCD permitted disposal facility.

4.0 Scope and Limitations

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

If there are any questions regarding this report, please contact either Melodie R. Sanjari at 574-370-9782 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Melodie Sanjari
Staff Scientist

Reviewed by:

Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map
Figure 2: Surface Water Radius Map
Figure 3: Background Sample Locations
Figure 4A: Initial Site and Sample Location Map
Figure 4B: Excavation and Confirmation Closure Sample Map

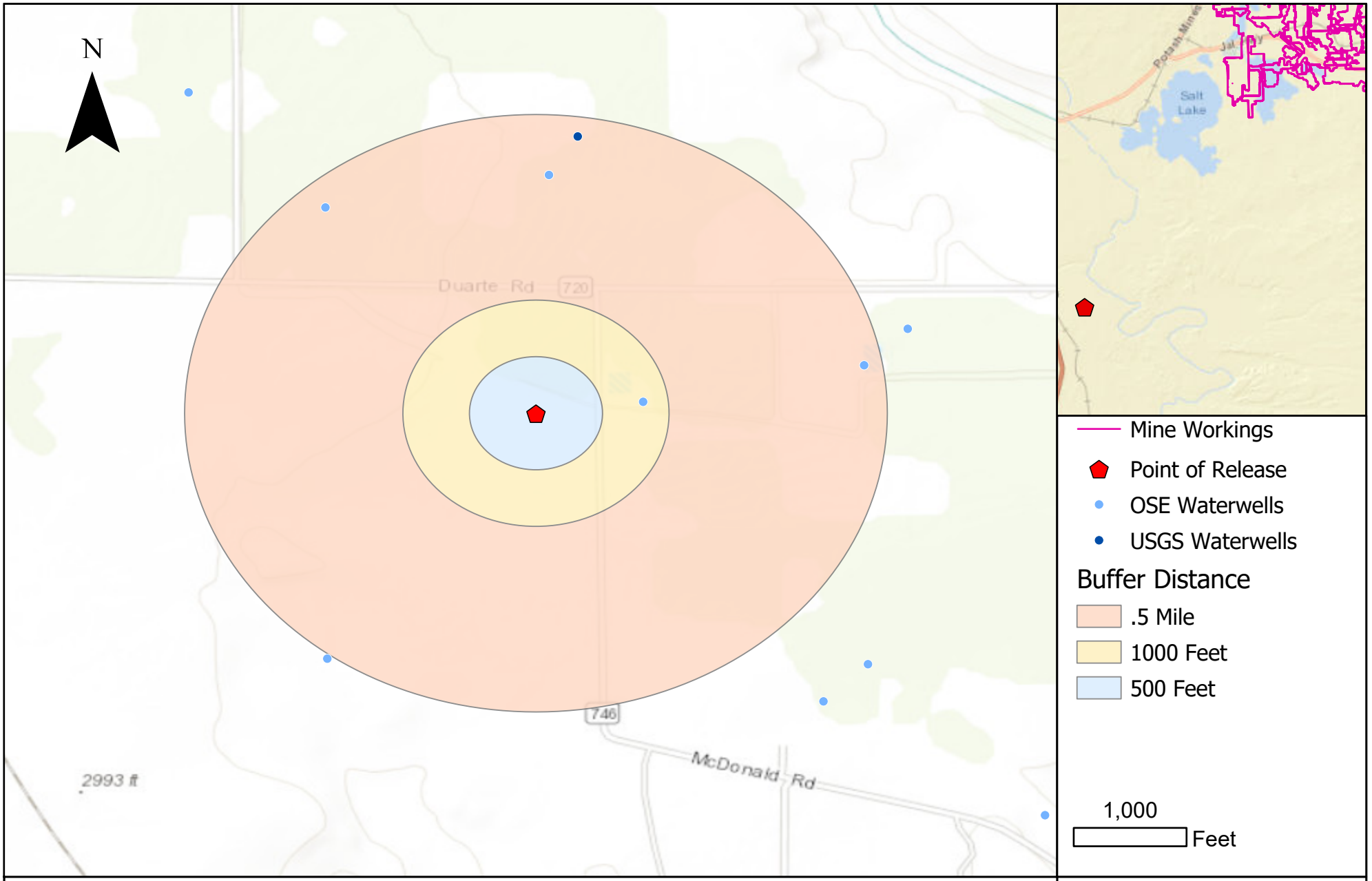
Tables:

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

Appendices:

Appendix A: C141: Initial & Final
Appendix B: NMOSE Wells Report
Appendix C: VSP Sampling Protocol
Appendix D: Laboratory Analytical Reports
Appendix E: Excavation Photo
Appendix F: Background Soil Data Report in the Loving/Malaga Area of Eddy County, NM

FIGURES



Regional Vicinity & Wellhead Protection Map
Janie Conner Tank Battery - Matador Resources

Figure 1

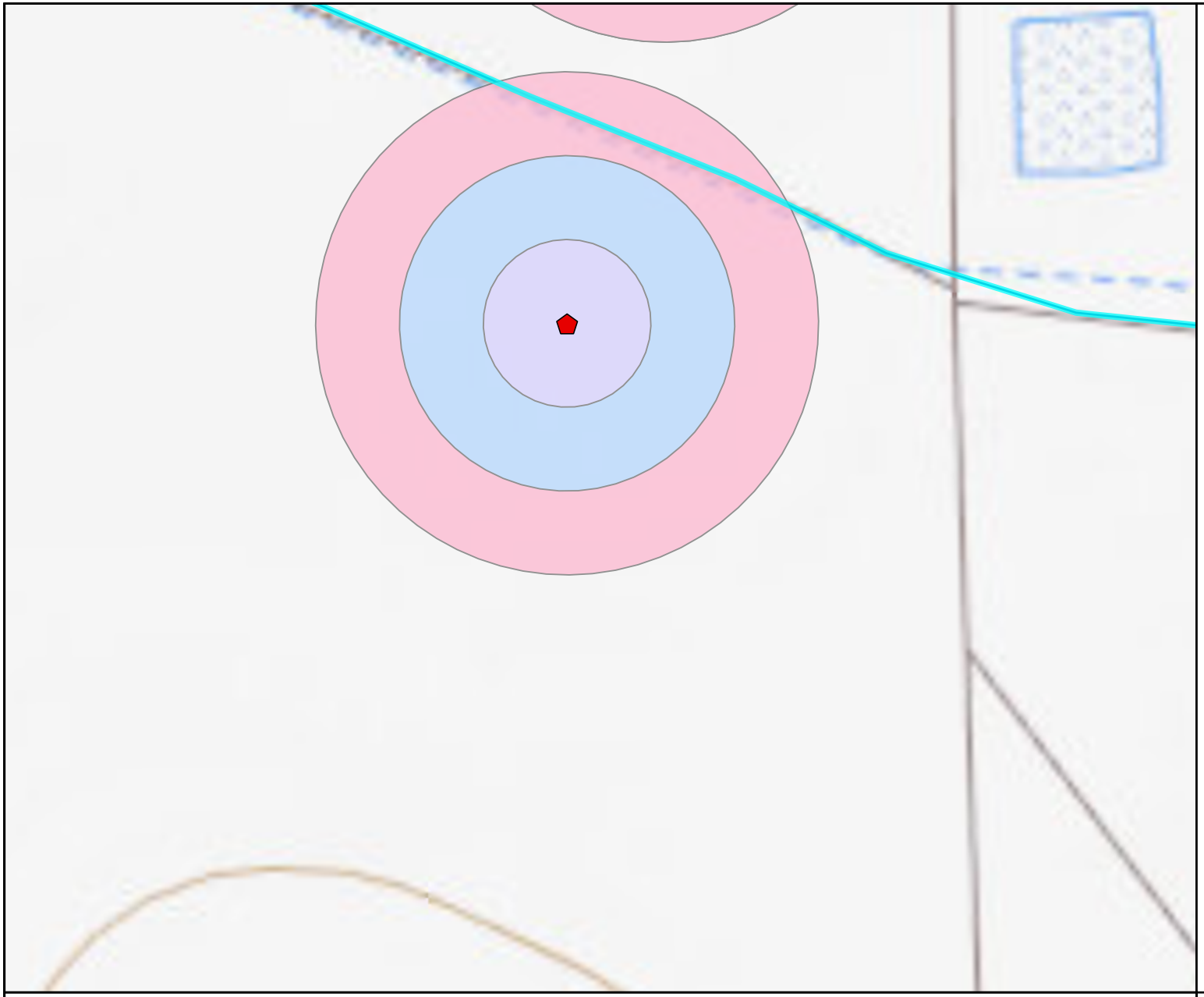
P:\5-Matador 2019 MSA (5E27961)\GIS\ARCGIS\MATADOR_MIT.aprx

Date Saved: 2/21/2019

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

Drawn	MRS
Date	2/21/2019
Checked	
Approved	

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



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

Buffer Distance
100 Feet
200 Feet
300 Feet

N

275
Feet

Janie Conner Tank Battery - Matador Resources
Surface Water Protection Map

Figure 2

Date Saved: 2/21/2019

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

Drawn
Date 2/21/2019
Checked
Approved

SMA

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

P:\5-Matador 2019 MSA (5E27961)\GIS\ARCGIS\MATADOR_MIT.aprx

Background Sample Locations

Release Area

N

380

Feet

Background Sample Location Map
Janie Conner Tank Battery- Matador Resources

Figure 3

Revisions

By: Date: Descr:

By: Date: Descr:

Drawn
Date ~~5/14/2019~~
Checked
Approved

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

Date Saved: 5/14/2019

P:\15-Matador 2019 MSA (5E27961)\GIS\ARCGIS\MATADOR_MIT.aprx

Sample Locations
Point of Release
Pipelines
Release Area

N

71
Feet

Matador Resources
Janie Conner Tank Battery -
Initial Site & Sample Location Map

Figure 4A

P:\5-Matador 2019 MSA (5E27961)\GIS\ARCGIS\MATADOR_MIT.aprx

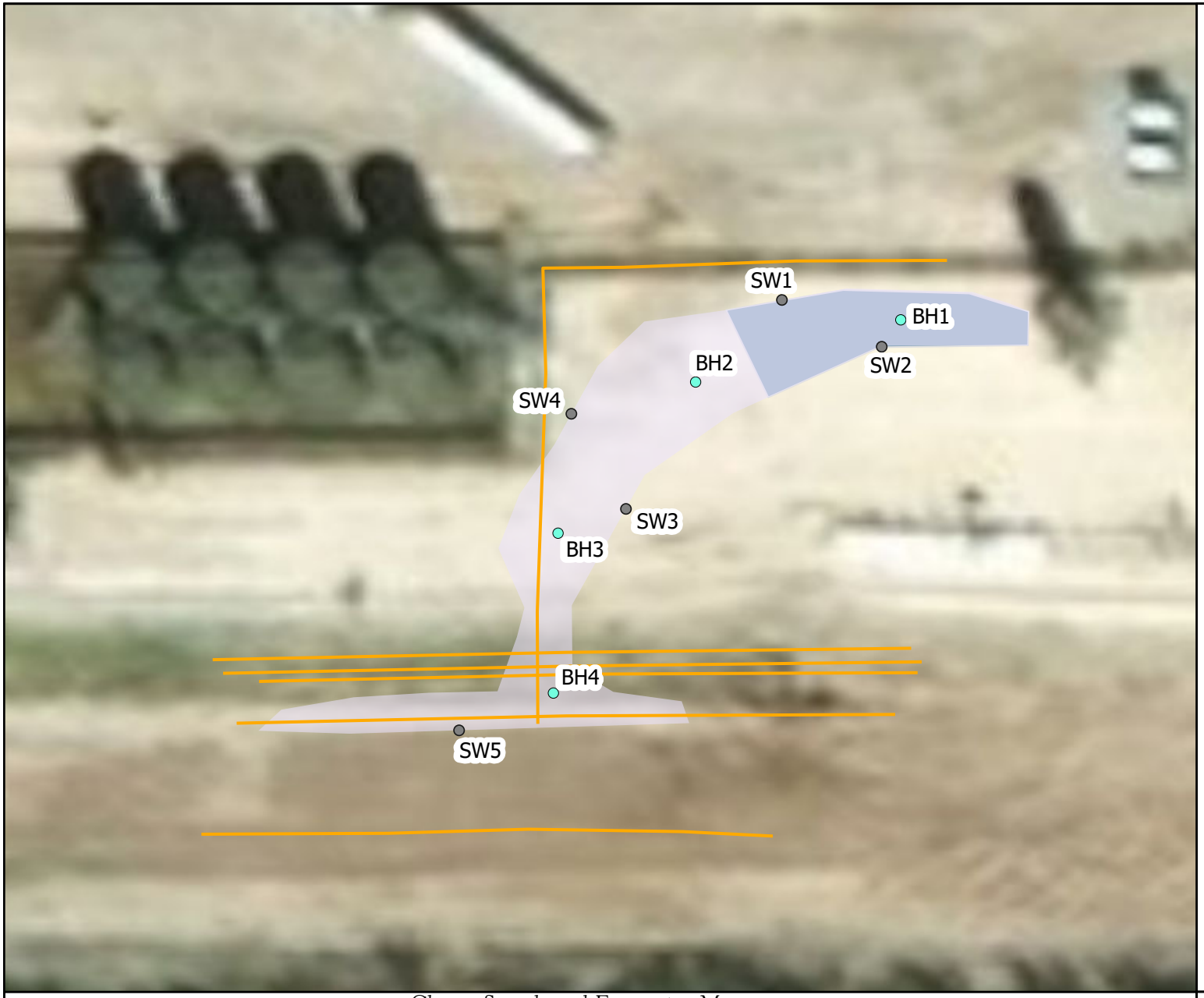
Date Saved: 2/26/2019

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

Drawn
Date 2/26/2019
Checked
Approved

SMA

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



SW Sample Locations
BH Sample Locations
Pipelines
Excavated to 2'
Excavated to 3'

N

41
Feet

Closure Sample and Excavation Map
Janie Conner Tank Battery - Matador Resources
Malaga, New Mexico

Figure 4B

P:\5-Matador 2019 MSA (5E27961)\GIS\ARCGIS\MATADOR_MIT.aprx

Date Saved: 5/2/2019

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

Drawn
Date 5/2/2019
Checked
Approved

SMA

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

TABLES

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	35-40	OSE
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)		810; 2160; 2490; 2550 OSE & USGS
Hortizontal Distance to Nearest Significant Watercourse (ft)	230	Canal to the North

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		1800	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?	yes	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?	yes					
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					

Sample ID	Sample Date	Depth (feet bgs)	Action	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria				50	10	1000			100	1800
INITIAL SAMPLE ANALYSIS										
L1	2/19/2019	0.5	excavated	0.801	<0.023	23	310	99	**432**	**900**
		1	excavated	--	--	<4.8	54	<49	54	**1100**
		2	excavated	--	--	<4.9	120	<50	**120**	**1500**
L2		0.5	excavated	**94.2**	1.4	2600	7300	1800	**11700**	620
		1	excavated	--	--	31	420	150	**601**	510
		2	excavated	--	--	5.4	<9.9	<49	5.2	**1300**
L3		1	excavated	**608**	**29**	12000	27,000	8,300	**47300**	98
		2	excavated	--	--	5000	13,000	4,000	**22000**	<60
BASELINE SAMPLE ANALYSIS FROM BACKGROUND SOIL REPORT										
P1	7/22/2016	0.5	--	--	--	--	--	--	--	170
P2		0.5	--	--	--	--	--	--	--	1600
P3		0.5	--	--	--	--	--	--	--	1800
RECENT BACKGROUND SAMPLE ANALYSIS										
JC	4/2/2019	2	--	--	--	--	--	--	--	990
		6	--	--	--	--	--	--	--	290
		10	--	--	--	--	--	--	--	160
		12	--	--	--	--	--	--	--	130
JC2		2	--	--	--	--	--	--	--	170
		4	--	--	--	--	--	--	--	190
		10	--	--	--	--	--	--	--	100
JC3		2								4900
		4	--	--	--	--	--	--	--	2200
		6	--	--	--	--	--	--	--	1400
		10	--	--	--	--	--	--	--	750
JC4		2	--	--	--	--	--	--	--	9900
		6	--	--	--	--	--	--	--	4900
		10	--	--	--	--	--	--	--	3600
CONFIRMATION CLOSURE SAMPLE ANALYSIS										
BH1	4/25/2019	3	sample	<0.22	<0.024	<4.9	<8.8	<44	<57.7	470
BH2	4/25/2019	2	sample	<0.222	<0.025	<4.9	<10	<50	<64.9	**2300**
	5/5/2019	2	sample	--	--	--	--	--	--	1100
BH3	4/25/2019	2	sample	<0.217	<0.024	<4.8	<9.2	<46	<60.0	1100
BH4	4/26/2019	2	sample	<0.225	<0.025	<5.0	31	<47	31	1400
SW1	4/25/2019	surface - 3	sample	<0.225	<0.025	<5.0	<9.7	<48	<62.7	150
SW2		surface - 3	sample	<0.215	<0.024	<4.8	<9.4	<47	<61.2	530
SW3		surface - 2	sample	<0.217	<0.024	<4.8	<8.7	<44	<57.5	370
SW4		surface -2	sample	<0.225	<0.025	<5.0	<9.8	<49	<63.8	550
SW5	4/26/2019	surface - 2	sample	<0.224	<0.025	<5.0	<9.1	<45	<59.1	1200

"--" = Not Analyzed

* = per Reclamation Standard (19.15.29.13.D(1) NMAC)

APPENDIX A
C141: INITIAL & FINAL

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Matador Resources	OGRID: 228937
Contact Name: John Hurt	Contact Telephone: 972-371-5200
Contact email: JHurt@matadorresources.com	Incident # *(assigned by OCD)*
Contact mailing address 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	

Location of Release Source

Latitude 32.2219634

Longitude -104.0504256
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Janie Conner Tank Battery	Site Type: Tank Battery
Date Release Discovered 2/19/2019	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
A	14	24S	28E	EDDY

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name: McDonald*)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 24	Volume Recovered (bbls) 6
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Equipment Failure – Fire Tube on Heater Treater

** 24 bbls of a crude oil and water mixture

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? <25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by SMA on 2/20/2019 to NMOCD District II via email	

Initial Response

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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: John Hurt Title: RES Specialist

Signature: Date: 3/4/19

email: JHurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Date:

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	2RP-5289
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Matador Resources	OGRID: 228937
Contact Name: John Hurt	Contact Telephone: 972-371-5200
Contact email: JHurt@matadorresources.com	Incident # *(assigned by OCD)*
Contact mailing address 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	

Location of Release Source

Latitude 32.2219634

Longitude -104.0504256
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Janie Conner Tank Battery	Site Type: Tank Battery
Date Release Discovered 2/19/2019	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
A	14	24S	28E	EDDY

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name: McDonald*)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 24	Volume Recovered (bbls) 6
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Equipment Failure – Fire Tube on Heater Treater

** 24 bbls of a crude oil and water mixture

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5289
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? <25 bbls

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by SMA on 2/20/2019 to NMOCD District II via email

Initial Response

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

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

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

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

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

Printed Name: John Hurt Title: RES Specialist

Signature: Date: 5/14/19

email: JHurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5289
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?	35-40 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☒ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5289
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 Specialist

Signature: Date: 5/14/19

email: JHurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5289
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: 5/14/19

email: JHurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

APPENDIX B
NMOSE WELLS REPORT

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 00738	CUB	ED	3	1	1	13	24S	28E	589673	3565472*	237	125	12	113
C 00574	CUB	ED	2	4	4	11	24S	28E	589452	3566081*	439	200	20	180
C 00903	C	ED		2	1	13	24S	28E	590178	3565575*	670	57	30	27
C 00464	CUB	ED	2	2	1	13	24S	28E	590277	3565674*	765	111	28	83

Average Depth to Water: **22 feet**

Minimum Depth: **12 feet**

Maximum Depth: **30 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 589511.6 **Northing (Y):** 3565645.69 **Radius:** 804

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

APPENDIX C
VSP SAMPLING PROTOCOL

VSP Sample Design Report for Using Stratified Sampling to Estimate the Population Proportion

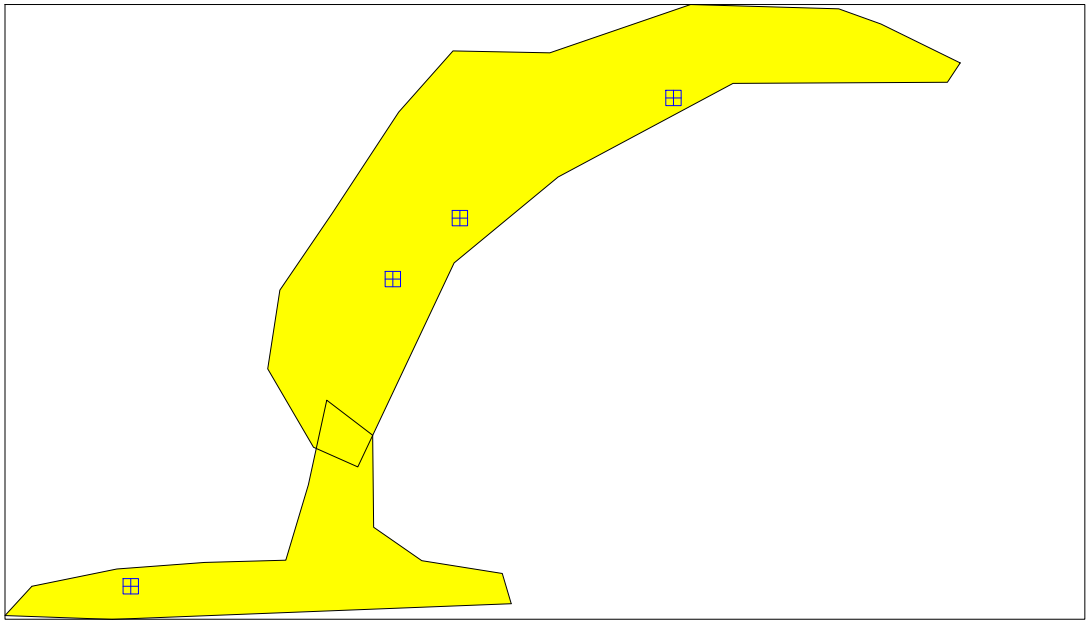
Summary

This report summarizes the stratified sampling design used, associated statistical assumptions, as well as general guidelines for conducting post-sampling data analysis. Sampling plan components presented here include how many sampling locations to choose and where within the sampling area to collect those samples. The type of medium to sample (i.e., soil, groundwater, etc.) and how to analyze the samples (in-situ, fixed laboratory, etc.) are addressed in other sections of the sampling plan. It is important to note that the decision for sample size calculation is determined for the combined strata, rather than any individual strata.

The following table summarizes the proportion stratified sampling design developed. A figure that shows sampling locations in the field and a table that lists sampling location coordinates are also provided below.

SUMMARY OF SAMPLING DESIGN	
Primary Objective of Design	Estimate the population proportion of all strata combined
Criteria for Determining Total Number of Samples	Achieve pre-specified precision of the estimated proportion for specified stratum costs, but no restriction on total costs
Sample Placement (Location) in the Field	Random sampling within grids within each stratum
Formula for calculating number of sampling locations	From Gilbert (1987, page 51)
Method for calculating number of sampling locations in each stratum	Optimal Allocation
Calculated total number of samples	4
Stratum 1	3
Stratum 2	1
Total area of all strata	2418.42 ft^2

[a] Including measurement analyses and fixed overhead costs. See the Cost of Sampling section for an explanation of the costs presented here.



Area: Area 1						
X Coord	**Y Coord**	**Label**	**Value**	**Type**	**Historical**	**Sample Area**
628585.1635	444589.1800			Random in Grid		
628594.4880	444597.6741			Random in Grid		
628624.2165	444614.3863			Random in Grid		

Area: Area 2						
X Coord	**Y Coord**	**Label**	**Value**	**Type**	**Historical**	**Sample Area**
628548.6948	444546.4220			Random in Grid		

Primary Sampling Objective
The primary purpose of sampling at this site is to estimate the proportion for the entire site, i.e., for all strata combined, such that the estimated proportion has the minimum possible standard deviation under the condition that the sampling and measurement costs cannot exceed a specified amount. Preexisting information was used to divide the site into 2 non-overlapping strata that were expected to be more homogeneous internally than for the entire site (all strata combined). The expected variability of values within each stratum was estimated or approximated, and the stratum weights, W_h, were determined so that the total number of samples could be allocated appropriately among the strata.

Number of Total Samples: Calculation Equation and Inputs
The total number of samples is computed to achieve the pre-specified precision of the estimated population proportion for specified stratum costs, but no restriction on total costs. *Note that the calculation is for the total number of samples, i.e., for combined strata, rather than individual strata.*

The formula used to calculate the total number of samples is:

$$n = \frac{\left(\sum_{h=1}^{L} W_h \sqrt{P_h(1-P_h)}\sqrt{c_h}\right)\sum_{h=1}^{L} \frac{W_h\sqrt{P_h(1-P_h)}}{\sqrt{c_h}}}{V + \frac{1}{N}\sum_{h=1}^{L} W_h P_h(1-P_h)}$$

where
L is the number of strata, $h=1,2,...,L$,
P_h is the estimated proportion of measurements in stratum h,
$W_h = N_h / N$ is the weight associated with stratum h,
N_h is the total number of possible sampling locations (units) in stratum h,
N is the total number of possible units in all strata combined, $N = \sum_{h=1}^{L} N_h$
V is the pre-specified variance or precision, and
c_h is the cost of collecting and measuring a sample in stratum h.

The values of these inputs that result in the calculated number of sampling locations are:

Parameter	Stratum	
	1	**2**
P_h	0.2	0.2
W_h	1778.03	640.391

Parameter	Input Value
V	1

Allocation of Samples to Strata
The total number of samples is allocated to the individual strata on an optimal basis using the formula:

$$n_h = n \frac{N_h \sqrt{P_h(1-P_h)} / \sqrt{c_h}}{\sum_{h=1}^{L} N_h \sqrt{P_h(1-P_h)} / \sqrt{c_h}}$$

where
n_h is the number of samples allocated to stratum h,
L is the number of strata,
N_h is the total number of units in stratum h,
P_h is the proportion in stratum h,
c_h is the cost per population unit in stratum h.

n is the total number of units sampled in all strata, $n = \sum_{h=1}^{L} n_h$

Using this formula, the number of samples allocated to each stratum is:

Stratum	Number of Samples
1	3
2	1
Total Samples	4

Method for Determining Sampling Locations
Five methods for determining sample locations are provided in VSP: 1) simple random sampling, 2) random sampling within grids, 3) systematic sampling with a random start, 4) systematic sampling with a fixed start and 5) adaptive grid sampling. One may use a different method for each stratum, based on the conceptual site model and decision to be made for a given stratum. For this site, sample locations were chosen using random sampling within grids in each stratum.

Locating the sample points using a random sampling within grids method combines appealing aspects of both the random and the systematic grid methods. It provides data that are separated by many distances, providing information about the spatial structure of the potential contamination. It also ensures good coverage of the entire site, although not as completely as if systematic grid sampling were performed.

Statistical Assumptions
The assumptions associated with the formulas for computing the number of samples are:
1. The estimated stratum proportions, P_h, are reasonable and representative of the stratum populations being sampled.
2. The sampling locations are selected using simple random sampling.
3. The stratum costs, C_h, and the fixed cost C_0, are accurate.

The first and third assumptions will be assessed in a post data collection analysis. The second assumption, although not strictly valid for strata where systematic grid sampling was used rather than simple random sampling, is not expected to significantly affect conclusions of the study because (1) the gridded sample locations were selected based on a random start and (2) any patterns of contamination in the field that may exist are not expected to coincide with the regularity of the grid sampling pattern.

Recommended Data Analysis Activities

Post data collection activities generally follow those outlined in EPA's Guidance for Data Quality Assessment (EPA, 2000). The data analysts will become familiar with the context of the problem and goals for data collection and assessment. The data will be verified and validated before being subjected to statistical or other analyses. Graphical and analytical tools will be used to verify to the extent possible the assumptions of any statistical analyses that are performed as well as to achieve a general understanding of the data. The data will be assessed to determine whether they are adequate in both quality and quantity to support the primary objective of sampling.

Estimates for the proportion of the population values will be calculated using the formulas appropriate for stratified sampling; these formulas are found in EPA QA/G-5S (EPA, 2001). Results of the exploratory and quantitative assessments of the data will be reported, along with conclusions that may be supported by them.

APPENDIX D

LABORATORY ANALYTICAL REPORTS

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

February 28, 2019

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

RE: Janie Conner TB OrderNo.: 1902896

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 8 sample(s) on 2/21/2019 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1902896**
Date Reported: **2/28/2019**

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-0.5
Project: Janie Conner TB
Collection Date: 2/19/2019 10:00:00 AM
Lab ID: 1902896-001 **Matrix:** SOIL **Received Date:** 2/21/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	900	60		mg/Kg	20	2/22/2019 7:13:43 PM	43302
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	310	9.7		mg/Kg	1	2/22/2019 10:13:03 AM	43278
Motor Oil Range Organics (MRO)	99	49		mg/Kg	1	2/22/2019 10:13:03 AM	43278
Surr: DNOP	116	70-130		%Rec	1	2/22/2019 10:13:03 AM	43278
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	23	4.7		mg/Kg	1	2/22/2019 3:05:51 PM	43274
Surr: BFB	236	73.8-119	S	%Rec	1	2/22/2019 3:05:51 PM	43274
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/22/2019 3:05:51 PM	43274
Toluene	0.081	0.047		mg/Kg	1	2/22/2019 3:05:51 PM	43274
Ethylbenzene	0.060	0.047		mg/Kg	1	2/22/2019 3:05:51 PM	43274
Xylenes, Total	0.66	0.093		mg/Kg	1	2/22/2019 3:05:51 PM	43274
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	1	2/22/2019 3:05:51 PM	43274

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-1
Project: Janie Conner TB
Collection Date: 2/19/2019 10:05:00 AM
Lab ID: 1902896-002 **Matrix:** SOIL **Received Date:** 2/21/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	1100	60		mg/Kg	20	2/25/2019 12:47:09 PM	43327
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	54	9.9		mg/Kg	1	2/25/2019 4:03:18 PM	43303
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/25/2019 4:03:18 PM	43303
Surr: DNOP	83.6	70-130		%Rec	1	2/25/2019 4:03:18 PM	43303
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/23/2019 3:24:24 PM	43294
Surr: BFB	97.2	73.8-119		%Rec	1	2/23/2019 3:24:24 PM	43294

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-2
Project: Janie Conner TB
Collection Date: 2/19/2019 10:10:00 AM
Lab ID: 1902896-003 **Matrix:** SOIL
Received Date: 2/21/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	1500	60		mg/Kg	20	2/25/2019 12:59:33 PM	43327
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	120	9.9		mg/Kg	1	2/25/2019 1:06:37 PM	43303
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/25/2019 1:06:37 PM	43303
Surr: DNOP	91.4	70-130		%Rec	1	2/25/2019 1:06:37 PM	43303
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/23/2019 4:32:25 PM	43294
Surr: BFB	106	73.8-119		%Rec	1	2/23/2019 4:32:25 PM	43294

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-0.5
Project: Janie Conner TB
Collection Date: 2/19/2019 10:15:00 AM
Lab ID: 1902896-004 **Matrix:** SOIL **Received Date:** 2/21/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	620	60		mg/Kg	20	2/22/2019 7:26:08 PM	43302
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	7300	100		mg/Kg	10	2/22/2019 1:26:38 PM	43278
Motor Oil Range Organics (MRO)	1800	500		mg/Kg	10	2/22/2019 1:26:38 PM	43278
Surr: DNOP	0	70-130	S	%Rec	10	2/22/2019 1:26:38 PM	43278
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	2600	240		mg/Kg	50	2/22/2019 12:34:36 PM	43274
Surr: BFB	239	73.8-119	S	%Rec	50	2/22/2019 12:34:36 PM	43274
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	1.4	1.2		mg/Kg	50	2/22/2019 12:34:36 PM	43274
Toluene	20	2.4		mg/Kg	50	2/22/2019 12:34:36 PM	43274
Ethylbenzene	5.8	2.4		mg/Kg	50	2/22/2019 12:34:36 PM	43274
Xylenes, Total	67	4.8		mg/Kg	50	2/22/2019 12:34:36 PM	43274
Surr: 4-Bromofluorobenzene	116	80-120		%Rec	50	2/22/2019 12:34:36 PM	43274

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-1
Project: Janie Conner TB
Collection Date: 2/19/2019 10:20:00 AM
Lab ID: 1902896-005 **Matrix:** SOIL **Received Date:** 2/21/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	510	60		mg/Kg	20	2/25/2019 1:36:46 PM	43327
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	420	9.9		mg/Kg	1	2/25/2019 1:28:38 PM	43303
Motor Oil Range Organics (MRO)	150	49		mg/Kg	1	2/25/2019 1:28:38 PM	43303
Surr: DNOP	99.2	70-130		%Rec	1	2/25/2019 1:28:38 PM	43303
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	31	4.7		mg/Kg	1	2/23/2019 4:55:03 PM	43294
Surr: BFB	269	73.8-119	S	%Rec	1	2/23/2019 4:55:03 PM	43294

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-2
Project: Janie Conner TB
Collection Date: 2/19/2019 10:25:00 AM
Lab ID: 1902896-006 **Matrix:** SOIL
Received Date: 2/21/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	1300	60		mg/Kg	20	2/25/2019 1:49:11 PM	43327
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/25/2019 1:50:41 PM	43303
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/25/2019 1:50:41 PM	43303
Surr: DNOP	74.5	70-130		%Rec	1	2/25/2019 1:50:41 PM	43303
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.4	4.9		mg/Kg	1	2/23/2019 5:17:42 PM	43294
Surr: BFB	112	73.8-119		%Rec	1	2/23/2019 5:17:42 PM	43294

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-1
Project: Janie Conner TB
Collection Date: 2/19/2019 10:30:00 AM
Lab ID: 1902896-007
Matrix: SOIL
Received Date: 2/21/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	98	60		mg/Kg	20	2/22/2019 8:03:21 PM	43302
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	27000	960		mg/Kg	100	2/22/2019 1:50:52 PM	43278
Motor Oil Range Organics (MRO)	8300	4800		mg/Kg	100	2/22/2019 1:50:52 PM	43278
Surr: DNOP	0	70-130	S	%Rec	100	2/22/2019 1:50:52 PM	43278
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	12000	490		mg/Kg	100	2/22/2019 12:57:31 PM	43274
Surr: BFB	255	73.8-119	S	%Rec	100	2/22/2019 12:57:31 PM	43274
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	29	2.4		mg/Kg	100	2/22/2019 12:57:31 PM	43274
Toluene	190	4.9		mg/Kg	100	2/22/2019 12:57:31 PM	43274
Ethylbenzene	29	4.9		mg/Kg	100	2/22/2019 12:57:31 PM	43274
Xylenes, Total	360	9.8		mg/Kg	100	2/22/2019 12:57:31 PM	43274
Surr: 4-Bromofluorobenzene	118	80-120		%Rec	100	2/22/2019 12:57:31 PM	43274

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-2
Project: Janie Conner TB
Collection Date: 2/19/2019 10:35:00 AM
Lab ID: 1902896-008 **Matrix:** SOIL **Received Date:** 2/21/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	2/25/2019 2:01:36 PM	43327
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	13000	190		mg/Kg	20	2/25/2019 3:19:04 PM	43303
Motor Oil Range Organics (MRO)	4000	970		mg/Kg	20	2/25/2019 3:19:04 PM	43303
Surr: DNOP	0	70-130	S	%Rec	20	2/25/2019 3:19:04 PM	43303
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	5000	240		mg/Kg	50	2/23/2019 5:40:19 PM	43294
Surr: BFB	247	73.8-119	S	%Rec	50	2/23/2019 5:40:19 PM	43294

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 Quanitative 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#: **1902896**

28-Feb-19

Client: Souder, Miller & Associates

Project: Janie Conner TB

Sample ID: **MB-43302**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **43302**	RunNo: **57905**							
Prep Date: **2/22/2019**	Analysis Date: **2/22/2019**	SeqNo: **1939513**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-43302**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **43302**	RunNo: **57905**							
Prep Date: **2/22/2019**	Analysis Date: **2/22/2019**	SeqNo: **1939514**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

Sample ID: **MB-43327**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **43327**	RunNo: **57937**							
Prep Date: **2/25/2019**	Analysis Date: **2/25/2019**	SeqNo: **1940123**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-43327**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **43327**	RunNo: **57937**							
Prep Date: **2/25/2019**	Analysis Date: **2/25/2019**	SeqNo: **1940124**	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.	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 Quanitative 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#: **1902896**

28-Feb-19

Client: Souder, Miller & Associates

Project: Janie Conner TB

Sample ID: **LCS-43278**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **43278**	RunNo: **57896**
Prep Date: **2/21/2019**	Analysis Date: **2/22/2019**	SeqNo: **1938482** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	103	63.9	124			
Surr: DNOP	5.2		5.000		104	70	130			

Sample ID: **MB-43278**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **43278**	RunNo: **57896**
Prep Date: **2/21/2019**	Analysis Date: **2/22/2019**	SeqNo: **1938483** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		109	70	130			

Sample ID: **1902896-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L1-0.5**	Batch ID: **43278**	RunNo: **57896**
Prep Date: **2/21/2019**	Analysis Date: **2/22/2019**	SeqNo: **1938485** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	360	9.7	48.50	311.8	91.4	53.5	126			
Surr: DNOP	4.6		4.850		93.9	70	130			

Sample ID: **1902896-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L1-0.5**	Batch ID: **43278**	RunNo: **57896**
Prep Date: **2/21/2019**	Analysis Date: **2/22/2019**	SeqNo: **1938486** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	380	10	49.75	311.8	140	53.5	126	6.88	21.7	S
Surr: DNOP	5.9		4.975		118	70	130	0	0	

Sample ID: **LCS-43303**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **43303**	RunNo: **57917**
Prep Date: **2/22/2019**	Analysis Date: **2/25/2019**	SeqNo: **1939464** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.2	63.9	124			
Surr: DNOP	4.3		5.000		87.0	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 Quanitative 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#: **1902896**

28-Feb-19

Client: Souder, Miller & Associates

Project: Janie Conner TB

Sample ID: **MB-43303**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **43303**	RunNo: **57917**
Prep Date: **2/22/2019**	Analysis Date: **2/25/2019**	SeqNo: **1939465** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.3		10.00		83.3	70	130			

Sample ID: **1902896-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L1-1**	Batch ID: **43303**	RunNo: **57917**
Prep Date: **2/22/2019**	Analysis Date: **2/25/2019**	SeqNo: **1940338** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	73	9.7	48.40	54.43	38.8	53.5	126			S
Surr: DNOP	3.9		4.840		80.5	70	130			

Sample ID: **1902896-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L1-1**	Batch ID: **43303**	RunNo: **57917**
Prep Date: **2/22/2019**	Analysis Date: **2/25/2019**	SeqNo: **1940339** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	65	9.7	48.50	54.43	21.9	53.5	126	11.9	21.7	S
Surr: DNOP	3.8		4.850		78.1	70	130	0	0	

Sample ID: **LCS-43309**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **43309**	RunNo: **57917**
Prep Date: **2/22/2019**	Analysis Date: **2/25/2019**	SeqNo: **1940344** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		5.000		79.3	70	130			

Sample ID: **MB-43309**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **43309**	RunNo: **57917**
Prep Date: **2/22/2019**	Analysis Date: **2/25/2019**	SeqNo: **1940345** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.3		10.00		93.3	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 Quanitative 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#: **1902896**

28-Feb-19

Client: Souder, Miller & Associates

Project: Janie Conner TB

Sample ID: **MB-43271**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **43271**	RunNo: **57873**
Prep Date: **2/21/2019**	Analysis Date: **2/22/2019**	SeqNo: **1937710** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		87.3	73.8	119			

Sample ID: **LCS-43271**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **43271**	RunNo: **57873**
Prep Date: **2/21/2019**	Analysis Date: **2/22/2019**	SeqNo: **1937711** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		104	73.8	119			

Sample ID: **MB-43274**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **43274**	RunNo: **57872**
Prep Date: **2/21/2019**	Analysis Date: **2/22/2019**	SeqNo: **1937715** 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	1000		1000		104	73.8	119			

Sample ID: **LCS-43274**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **43274**	RunNo: **57872**
Prep Date: **2/21/2019**	Analysis Date: **2/22/2019**	SeqNo: **1937716** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	80.1	123			
Surr: BFB	1100		1000		113	73.8	119			

Sample ID: **MB-43294**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **43294**	RunNo: **57911**
Prep Date: **2/22/2019**	Analysis Date: **2/23/2019**	SeqNo: **1938951** 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	860		1000		86.1	73.8	119			

Sample ID: **LCS-43294**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **43294**	RunNo: **57911**
Prep Date: **2/22/2019**	Analysis Date: **2/23/2019**	SeqNo: **1938952** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	80.1	123			
Surr: BFB	1100		1000		107	73.8	119			

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 Quanitative 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#: **1902896**

28-Feb-19

Client: Souder, Miller & Associates

Project: Janie Conner TB

Sample ID: **1902896-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **L1-1**	Batch ID: **43294**	RunNo: **57911**
Prep Date: **2/22/2019**	Analysis Date: **2/23/2019**	SeqNo: **1938954** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	4.8	23.76	2.371	121	69.1	142			
Surr: BFB	1100		950.6		118	73.8	119			

Sample ID: **1902896-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **L1-1**	Batch ID: **43294**	RunNo: **57911**
Prep Date: **2/22/2019**	Analysis Date: **2/23/2019**	SeqNo: **1938955** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	34	5.0	25.00	2.371	128	69.1	142	10.2	20	
Surr: BFB	1200		1000		119	73.8	119	0	0	S

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 Quanitative 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#: **1902896**

28-Feb-19

Client: Souder, Miller & Associates

Project: Janie Conner TB

Sample ID: **MB-43274**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **43274**	RunNo: **57872**
Prep Date: **2/21/2019**	Analysis Date: **2/22/2019**	SeqNo: **1938745** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		98.6	80	120			

Sample ID: **LCS-43274**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **43274**	RunNo: **57872**
Prep Date: **2/21/2019**	Analysis Date: **2/22/2019**	SeqNo: **1938746** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.8	80	120			
Toluene	0.95	0.050	1.000	0	94.7	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.4	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.8	80	120			

Sample ID: **MB-43294**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **43294**	RunNo: **57911**
Prep Date: **2/22/2019**	Analysis Date: **2/23/2019**	SeqNo: **1938999** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.94		1.000		93.8	80	120			

Sample ID: **LCS-43294**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **43294**	RunNo: **57911**
Prep Date: **2/22/2019**	Analysis Date: **2/23/2019**	SeqNo: **1939000** Units: **%Rec**

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

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: **1902896** RcptNo: **1**

Received By: **Isaiah Ortiz** **2/21/2019 8:40:00 AM** I-OX

Completed By: **Isaiah Ortiz** **2/21/2019 8:49:38 AM** I-OX

Reviewed By: IO 2/21/19

LB: ENM 2/21/19

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

ENM 2/21/19

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

Chain-of-Custody Record

Client: SMN Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5 day turn
☐ Standard ☐ Rush

Project Name: Janie Conner TB

Project #:

Project Manager: A. Weyant

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 2.1 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1902896	(BTEX) MTBE / TMB's (8021)	(TPH) 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, ~~NO3, NO2, PO4, SO4~~	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
2.19.19	10:00	soil	L1 - 0.5	4oz		-001	X	X					X			
	10:05		L1 - 1			-002		X					X			
	10:10		L1 - 2			-003		X					X			
	10:15		L2 - 0.5			-004	X	X					X			
	10:20		L2 - 1			-005		X					X			
	10:25		L2 - 2			-006		X					X			
	10:30		L3 - 1			-007	X	X					X			
	10:35		L3 - 2			-008		X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
2.20.19	9:30	Samantha Watson			2/20/19	1400
2/20/19	1900			Courier	2/21/19	0840

Remarks: Matador 2019

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

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

August 05, 2016

Austin Weyant

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

RE: Janie Connor 201 OrderNo.: 1607D21

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/26/2016 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1607D21**
Date Reported: **8/5/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: P1
Project: Janie Connor 201
Collection Date: 7/22/2016 12:00:00 PM
Lab ID: 1607D21-001
Matrix: SOIL
Received Date: 7/26/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	170	30		mg/Kg	20	8/1/2016 10:24:48 PM	26731
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	11	9.6		mg/Kg	1	8/1/2016 12:02:53 PM	26694
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/1/2016 12:02:53 PM	26694
Surr: DNOP	53.9	70-130	S	%Rec	1	8/1/2016 12:02:53 PM	26694
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/27/2016 3:59:13 PM	26606
Surr: BFB	106	80-120		%Rec	1	7/27/2016 3:59:13 PM	26606
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	7/27/2016 3:59:13 PM	26606
Benzene	ND	0.024		mg/Kg	1	7/27/2016 3:59:13 PM	26606
Toluene	ND	0.048		mg/Kg	1	7/27/2016 3:59:13 PM	26606
Ethylbenzene	ND	0.048		mg/Kg	1	7/27/2016 3:59:13 PM	26606
Xylenes, Total	ND	0.097		mg/Kg	1	7/27/2016 3:59:13 PM	26606
Surr: 4-Bromofluorobenzene	99.9	80-120		%Rec	1	7/27/2016 3:59:13 PM	26606

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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: P2
Project: Janie Connor 201
Collection Date: 7/22/2016 12:00:00 PM
Lab ID: 1607D21-002
Matrix: SOIL
Received Date: 7/26/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	1600	75		mg/Kg	50	8/2/2016 9:22:20 PM	26731
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/27/2016 6:52:04 PM	26603
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/27/2016 6:52:04 PM	26603
Surr: DNOP	48.4	70-130	S	%Rec	1	7/27/2016 6:52:04 PM	26603
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/27/2016 4:22:52 PM	26606
Surr: BFB	106	80-120		%Rec	1	7/27/2016 4:22:52 PM	26606
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Methyl tert-butyl ether (MTBE)	ND	0.093		mg/Kg	1	7/27/2016 4:22:52 PM	26606
Benzene	ND	0.023		mg/Kg	1	7/27/2016 4:22:52 PM	26606
Toluene	ND	0.047		mg/Kg	1	7/27/2016 4:22:52 PM	26606
Ethylbenzene	ND	0.047		mg/Kg	1	7/27/2016 4:22:52 PM	26606
Xylenes, Total	ND	0.093		mg/Kg	1	7/27/2016 4:22:52 PM	26606
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	7/27/2016 4:22:52 PM	26606

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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: P3
Project: Janie Connor 201
Collection Date: 7/22/2016 12:00:00 PM
Lab ID: 1607D21-003
Matrix: SOIL
Received Date: 7/26/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	1800	75		mg/Kg	50	8/2/2016 9:34:44 PM	26731
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/27/2016 7:20:02 PM	26603
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/27/2016 7:20:02 PM	26603
Surr: DNOP	47.8	70-130	S	%Rec	1	7/27/2016 7:20:02 PM	26603
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/27/2016 4:46:28 PM	26606
Surr: BFB	106	80-120		%Rec	1	7/27/2016 4:46:28 PM	26606
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	7/27/2016 4:46:28 PM	26606
Benzene	ND	0.024		mg/Kg	1	7/27/2016 4:46:28 PM	26606
Toluene	ND	0.048		mg/Kg	1	7/27/2016 4:46:28 PM	26606
Ethylbenzene	ND	0.048		mg/Kg	1	7/27/2016 4:46:28 PM	26606
Xylenes, Total	ND	0.096		mg/Kg	1	7/27/2016 4:46:28 PM	26606
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	7/27/2016 4:46:28 PM	26606

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
R	RPD outside accepted recovery limits	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#: **1607D21**

05-Aug-16

Client: Souder, Miller & Associates

Project: Janie Connor 201

Sample ID	**MB-26731**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**26731**	RunNo:	**36149**					
Prep Date:	**8/1/2016**	Analysis Date:	**8/1/2016**	SeqNo:	**1119547**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-26731**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**26731**	RunNo:	**36149**					
Prep Date:	**8/1/2016**	Analysis Date:	**8/1/2016**	SeqNo:	**1119549**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.9	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	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
R	RPD outside accepted recovery limits	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#: **1607D21**

05-Aug-16

Client: Souder, Miller & Associates

Project: Janie Connor 201

Sample ID	**MB-26603**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**26603**		RunNo:	**36010**				
Prep Date:	**7/26/2016**	Analysis Date:	**7/27/2016**		SeqNo:	**1115521**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.0		10.00		80.5	70	130			

Sample ID	**LCS-26603**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**26603**		RunNo:	**36010**				
Prep Date:	**7/26/2016**	Analysis Date:	**7/27/2016**		SeqNo:	**1115716**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	101	62.6	124			
Surr: DNOP	4.5		5.000		90.9	70	130			

Sample ID	**LCS-26694**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**26694**		RunNo:	**36120**				
Prep Date:	**7/29/2016**	Analysis Date:	**8/1/2016**		SeqNo:	**1118973**	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	96.9	62.6	124			
Surr: DNOP	4.6		5.000		91.4	70	130			

Sample ID	**MB-26694**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**26694**		RunNo:	**36120**				
Prep Date:	**7/29/2016**	Analysis Date:	**8/1/2016**		SeqNo:	**1118974**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.1		10.00		81.1	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
R	RPD outside accepted recovery limits	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#: **1607D21**

05-Aug-16

Client: Souder, Miller & Associates

Project: Janie Connor 201

Sample ID	**LCS-26606**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**26606**		RunNo:	**36031**				
Prep Date:	**7/26/2016**	Analysis Date:	**7/27/2016**		SeqNo:	**1115993**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.3	80	120			
Surr: BFB	1100		1000		114	80	120			

Sample ID	**MB-26606**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**26606**		RunNo:	**36031**				
Prep Date:	**7/26/2016**	Analysis Date:	**7/27/2016**		SeqNo:	**1115994**	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	1000		1000		104	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
R	RPD outside accepted recovery limits	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#: **1607D21**

05-Aug-16

Client: Souder, Miller & Associates

Project: Janie Connor 201

Sample ID **LCS-26606**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **26606**	RunNo: **36031**
Prep Date: **7/26/2016**	Analysis Date: **7/27/2016**	SeqNo: **1116018** 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	95.1	61	143			
Benzene	0.99	0.025	1.000	0	99.4	75.3	123			
Toluene	0.96	0.050	1.000	0	96.3	80	124			
Ethylbenzene	0.97	0.050	1.000	0	96.9	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	96.7	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID **MB-26606**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **26606**	RunNo: **36031**
Prep Date: **7/26/2016**	Analysis Date: **7/27/2016**	SeqNo: **1116019** 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	0.99		1.000		98.6	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
R	RPD outside accepted recovery limits	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

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: 1607D21 RcptNo: 1

Received by/date: AS 07/26/16

Logged By: **Lindsay Mangin** 7/26/2016 10:00:00 AM

Completed By: **Lindsay Mangin** 7/26/2016 10:07:38 AM

Reviewed By: 07/26/16

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° 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.9	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: Souder Miller & Associates

Mailing Address: 201 S Halagueno Carlsbad, NM

Phone #: 575 689-7040

Email or Fax#: austin.weyant@soudermiller.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation:
☑ NELAP ☐ Other

☐ EDD (Type)

☑ Standard ☐ Rush

Project Name: ~~Doe~~ Janie Connor 201 #

Project #:

Project Manager: Austin Weyant

Sampler: LCM

On Ice: ☑ Yes ☐ No

Sample Temperature: 4.9°C

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1607D21	Cl-	8021	8015B	Air Bubbles (Y or N)
7-22-16	12:00	Soil	P1	4oz		-001	X	X	X	
"	"	"	P2	"	"	-002	X	X	X	
"	"	"	P3	"	"	-003	X	X	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
7-25-16	1200			7/25/16	1400
7/25/16	1900			07/26/16	1000

Remarks: email results to lucas.middleton@soudermiller.com and P

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 10, 2019

Melodie Sanjari

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

RE: Janie Connor BG JC BG OrderNo.: 1904173

Dear Melodie Sanjari:

Hall Environmental Analysis Laboratory received 22 sample(s) on 4/3/2019 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Lab Order:** 1904173
Project: Janie Connor BG JC BG

Lab ID: 1904173-001 **Collection Date:** 4/2/2019 9:30:00 AM
Client Sample ID: JC-2' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	990	60		mg/Kg	20	4/6/2019 5:35:25 PM	44170

Lab ID: 1904173-003 **Collection Date:** 4/2/2019 9:50:00 AM
Client Sample ID: JC-6' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	290	60		mg/Kg	20	4/6/2019 5:47:50 PM	44170

Lab ID: 1904173-005 **Collection Date:** 4/2/2019 10:10:00 AM
Client Sample ID: JC-10' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	160	61		mg/Kg	20	4/6/2019 6:00:14 PM	44170

Lab ID: 1904173-006 **Collection Date:** 4/2/2019 10:20:00 AM
Client Sample ID: JC-12' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	130	60		mg/Kg	20	4/6/2019 6:37:29 PM	44170

Lab ID: 1904173-007 **Collection Date:** 4/2/2019 10:45:00 AM
Client Sample ID: JC2-2' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	170	60		mg/Kg	20	4/6/2019 6:49:54 PM	44170

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

Qualifiers:
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Lab Order:** 1904173
Project: Janie Connor BG JC BG

Lab ID: 1904173-009 **Collection Date:** 4/2/2019 10:55:00 AM
Client Sample ID: JC2-6' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	190	60		mg/Kg	20	4/6/2019 7:02:18 PM	44170

Lab ID: 1904173-011 **Collection Date:** 4/2/2019 11:05:00 AM
Client Sample ID: JC2-10' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	100	60		mg/Kg	20	4/6/2019 7:14:43 PM	44170

Lab ID: 1904173-012 **Collection Date:** 4/2/2019 11:30:00 AM
Client Sample ID: JC3-2' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	4900	150		mg/Kg	50	4/8/2019 4:20:17 PM	44170

Lab ID: 1904173-013 **Collection Date:** 4/2/2019 11:35:00 AM
Client Sample ID: JC3-4' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	2200	60		mg/Kg	20	4/6/2019 8:04:23 PM	44170

Lab ID: 1904173-014 **Collection Date:** 4/2/2019 11:45:00 AM
Client Sample ID: JC3-6' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	1400	60		mg/Kg	20	4/6/2019 8:16:48 PM	44170

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

Qualifiers:
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Lab Order:** 1904173
Project: Janie Connor BG JC BG

Lab ID: 1904173-016 **Collection Date:** 4/2/2019 11:55:00 AM
Client Sample ID: JC3-10' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	750	59		mg/Kg	20	4/6/2019 8:29:12 PM	44170

Lab ID: 1904173-018 **Collection Date:** 4/2/2019 12:10:00 PM
Client Sample ID: JC4-2' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	9900	600		mg/Kg	200	4/8/2019 4:32:42 PM	44170

Lab ID: 1904173-020 **Collection Date:** 4/2/2019 12:30:00 PM
Client Sample ID: JC4-6' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	4900	150		mg/Kg	50	4/8/2019 4:45:07 PM	44170

Lab ID: 1904173-022 **Collection Date:** 4/2/2019 12:50:00 PM
Client Sample ID: JC4-10' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	3600	150		mg/Kg	50	4/8/2019 5:22:22 PM	44170

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

Qualifiers:
- H Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit
- W Sample container temperature is out of limit as specified at testcode
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904173**

10-Apr-19

Client: Souder, Miller & Associates

Project: Janie Connor BG JC BG

Sample ID: **MB-44170**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **44170**	RunNo: **58961**							
Prep Date: **4/6/2019**	Analysis Date: **4/6/2019**	SeqNo: **1983371**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-44170**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **44170**	RunNo: **58961**							
Prep Date: **4/6/2019**	Analysis Date: **4/6/2019**	SeqNo: **1983373**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.4	90	110			

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **1904173** RcptNo: **1**

Received By: **Yazmine Garduno** **4/3/2019 8:50:00 AM** Yazmine Garduno

Completed By: **Erin Melendrez** **4/3/2019 10:38:56 AM**

Reviewed By: DAD 4/3/19
LB: JJC 4-3-19

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: JJC 4-3-19

Special Handling (if applicable)

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

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			
2	2.8	Good	Yes			
3	5.6	Good	Yes			

Chain-of-Custody Record

Client: SMA Carlsbad.

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5 day

Project Name: Janie Connor BG

Project #: (JC-BG)

Project Manager: Melodie Sanjari

Sampler: MPS

On Ice: ☒ Yes ☐ No

# of Coolers: 3

Cooler Temp(including CF): 2.1°, 2.8°, 5.6°

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1904173	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/2/19	9:30	Soil	JC-2'	402.		-001							✓			
	9:40		JC-4'			-002		PLEASE HOLD								
	9:50		JC-6'			-003							✓			
	10:00		JC-8'			-004		PLEASE HOLD								
	10:10		JC-10'			-005							✓			
	10:20		JC-12'			-006							✓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/2/19	1430				4/2/19	1430
4/2/19	1940			courier	4/3/19	8:50

Remarks: Matador.

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

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5 day

Project Name: ~~BG~~ Janie Conner BG

Project #: (JC-BG)

Project Manager: Melodie Sanjari

Sampler: MPS

On Ice: ☒ Yes ☐ No

# of Coolers: 3

Cooler Temp(including CF): 2.1°C, 2.8°C, 5.6

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1904173	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl^-, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/2/18	10:45	Soil	JC2-2'	4oz.		-007							✓			
	10:50		JC2-4'			-008			PLEASE					HOLD		
	10:55		JC2-6'			-009							✓			
	11:00		JC2 '8'			-010			PLEASE					HOLD.		
	11:05		JC2 ,10'			-011							✓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/2/19	1430				4/2/19	1430
4/2/19	1900		Yulie courier		4/3/18	8:50

Remarks: Matador.

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

Chain-of-Custody Record

Client: SMA - Carlsbad.

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other ________
☐ EDD (Type) ________

Turn-Around Time:
☐ Standard ☒ Rush 5 day

Project Name: Janie Conner BGs (JC-BG)

Project #:

Project Manager: Melodie Sanjari

Sampler: MPS
On Ice: ☒ Yes ☐ No
# of Coolers: 3
Cooler Temp(including CF): 2.1°C, 2.4°C, 5.6°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1904173	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
4/2/19	11:30	soil	JC3 - 2'	4oz.		-012							✓									
↓	11:35	↓	JC3 - 4'	↓		-013							✓									
	11:45		JC3 6'			-014							✓									
	11:50		JC3 8'			-015				PLEASE				HOLD								
	11:55		JC3 10'			-016							✓									
	12:00		JC3 12'			-017				PLEASE				HOLD.								

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time	Remarks:
4/2/19	1430	[signature]	[signature]		4/2/19	1430	Matador.
4/2/19	1900	[signature]	[signature]	courier	4/3/19	8:50	

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

Chain-of-Custody Record

Client: SMA - Carlsbad.

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5 day.

Project Name: Jarvis Connor BG.

Project #: (JCBG)

Project Manager: Melodie Sanjari

Sampler: MPS

On Ice: ☒ Yes ☐ No

# of Coolers: 3

Cooler Temp(including CF): 2.1°C, 2.4°C, 5.6°C

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1904173
4/2/19	12:10	Soil	JC4-2'	4oz.		-018
	12:20		JC4-4'			-019
	12:30		JC4-6'			-020
	12:40		JC4-8'			-021
	12:50		JC4-10'			-022

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
						✓			
		PLEASE						HOLD	
						✓			
		PLEASE						HOLD.	
						✓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/2/19	1430				4/2/19	1430
4/2/19	1900			courier	4/3/19	8:50

Remarks: Matador.

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 06, 2019

Melodie Sanjari

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

RE: Janie Conner OrderNo.: 1904D89

Dear Melodie Sanjari:

Hall Environmental Analysis Laboratory received 9 sample(s) on 4/30/2019 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW1
Project: Janie Conner
Collection Date: 4/25/2019 4:50:00 AM
Lab ID: 1904D89-001 **Matrix:** SOIL **Received Date:** 4/30/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	150	60		mg/Kg	20	5/1/2019 4:21:45 PM	44638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/1/2019 4:57:06 PM	44624
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/1/2019 4:57:06 PM	44624
Surr: DNOP	99.1	70-130		%Rec	1	5/1/2019 4:57:06 PM	44624
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/1/2019 9:27:27 PM	44616
Surr: BFB	91.3	73.8-119		%Rec	1	5/1/2019 9:27:27 PM	44616
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/1/2019 9:27:27 PM	44616
Toluene	ND	0.050		mg/Kg	1	5/1/2019 9:27:27 PM	44616
Ethylbenzene	ND	0.050		mg/Kg	1	5/1/2019 9:27:27 PM	44616
Xylenes, Total	ND	0.10		mg/Kg	1	5/1/2019 9:27:27 PM	44616
Surr: 4-Bromofluorobenzene	91.7	80-120		%Rec	1	5/1/2019 9:27:27 PM	44616

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW2
Project: Janie Conner
Collection Date: 4/25/2019 4:30:00 AM
Lab ID: 1904D89-002 **Matrix:** SOIL **Received Date:** 4/30/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	530	60		mg/Kg	20	5/1/2019 4:34:10 PM	44638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/1/2019 5:19:12 PM	44624
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/1/2019 5:19:12 PM	44624
Surr: DNOP	96.8	70-130		%Rec	1	5/1/2019 5:19:12 PM	44624
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/1/2019 9:50:59 PM	44616
Surr: BFB	93.1	73.8-119		%Rec	1	5/1/2019 9:50:59 PM	44616
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/1/2019 9:50:59 PM	44616
Toluene	ND	0.048		mg/Kg	1	5/1/2019 9:50:59 PM	44616
Ethylbenzene	ND	0.048		mg/Kg	1	5/1/2019 9:50:59 PM	44616
Xylenes, Total	ND	0.095		mg/Kg	1	5/1/2019 9:50:59 PM	44616
Surr: 4-Bromofluorobenzene	91.3	80-120		%Rec	1	5/1/2019 9:50:59 PM	44616

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW3
Project: Janie Conner
Collection Date: 4/25/2019 12:00:00 PM
Lab ID: 1904D89-003 **Matrix:** SOIL **Received Date:** 4/30/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	370	60		mg/Kg	20	5/1/2019 4:46:35 PM	44638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	5/1/2019 5:41:32 PM	44624
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	5/1/2019 5:41:32 PM	44624
Surr: DNOP	95.2	70-130		%Rec	1	5/1/2019 5:41:32 PM	44624
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/1/2019 11:01:26 PM	44616
Surr: BFB	91.3	73.8-119		%Rec	1	5/1/2019 11:01:26 PM	44616
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/1/2019 11:01:26 PM	44616
Toluene	ND	0.048		mg/Kg	1	5/1/2019 11:01:26 PM	44616
Ethylbenzene	ND	0.048		mg/Kg	1	5/1/2019 11:01:26 PM	44616
Xylenes, Total	ND	0.097		mg/Kg	1	5/1/2019 11:01:26 PM	44616
Surr: 4-Bromofluorobenzene	91.2	80-120		%Rec	1	5/1/2019 11:01:26 PM	44616

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW4
Project: Janie Conner
Collection Date: 4/25/2019 12:30:00 PM
Lab ID: 1904D89-004 **Matrix:** SOIL **Received Date:** 4/30/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	550	60		mg/Kg	20	5/1/2019 4:59:00 PM	44638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/1/2019 6:03:52 PM	44624
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/1/2019 6:03:52 PM	44624
Surr: DNOP	94.4	70-130		%Rec	1	5/1/2019 6:03:52 PM	44624
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/1/2019 11:24:51 PM	44616
Surr: BFB	89.5	73.8-119		%Rec	1	5/1/2019 11:24:51 PM	44616
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/1/2019 11:24:51 PM	44616
Toluene	ND	0.050		mg/Kg	1	5/1/2019 11:24:51 PM	44616
Ethylbenzene	ND	0.050		mg/Kg	1	5/1/2019 11:24:51 PM	44616
Xylenes, Total	ND	0.10		mg/Kg	1	5/1/2019 11:24:51 PM	44616
Surr: 4-Bromofluorobenzene	90.2	80-120		%Rec	1	5/1/2019 11:24:51 PM	44616

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW5
Project: Janie Conner
Collection Date: 4/26/2019 11:00:00 AM
Lab ID: 1904D89-005 **Matrix:** SOIL **Received Date:** 4/30/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1200	60		mg/Kg	20	5/1/2019 7:15:29 PM	44662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/1/2019 6:26:16 PM	44624
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/1/2019 6:26:16 PM	44624
Surr: DNOP	95.7	70-130		%Rec	1	5/1/2019 6:26:16 PM	44624
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/1/2019 11:48:23 PM	44616
Surr: BFB	91.8	73.8-119		%Rec	1	5/1/2019 11:48:23 PM	44616
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/1/2019 11:48:23 PM	44616
Toluene	ND	0.050		mg/Kg	1	5/1/2019 11:48:23 PM	44616
Ethylbenzene	ND	0.050		mg/Kg	1	5/1/2019 11:48:23 PM	44616
Xylenes, Total	ND	0.099		mg/Kg	1	5/1/2019 11:48:23 PM	44616
Surr: 4-Bromofluorobenzene	92.6	80-120		%Rec	1	5/1/2019 11:48:23 PM	44616

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH1
Project: Janie Conner
Collection Date: 4/25/2019 5:00:00 AM
Lab ID: 1904D89-006 **Matrix:** SOIL **Received Date:** 4/30/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	470	60		mg/Kg	20	5/1/2019 7:52:42 PM	44662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	5/1/2019 6:48:17 PM	44624
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	5/1/2019 6:48:17 PM	44624
Surr: DNOP	94.8	70-130		%Rec	1	5/1/2019 6:48:17 PM	44624
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/2/2019 12:11:56 AM	44616
Surr: BFB	89.0	73.8-119		%Rec	1	5/2/2019 12:11:56 AM	44616
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/2/2019 12:11:56 AM	44616
Toluene	ND	0.049		mg/Kg	1	5/2/2019 12:11:56 AM	44616
Ethylbenzene	ND	0.049		mg/Kg	1	5/2/2019 12:11:56 AM	44616
Xylenes, Total	ND	0.098		mg/Kg	1	5/2/2019 12:11:56 AM	44616
Surr: 4-Bromofluorobenzene	88.2	80-120		%Rec	1	5/2/2019 12:11:56 AM	44616

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2
Project: Janie Conner
Collection Date: 4/25/2019 11:45:00 AM
Lab ID: 1904D89-007 **Matrix:** SOIL **Received Date:** 4/30/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2300	150		mg/Kg	50	5/2/2019 5:03:12 PM	44662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/1/2019 7:10:44 PM	44624
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/1/2019 7:10:44 PM	44624
Surr: DNOP	94.4	70-130		%Rec	1	5/1/2019 7:10:44 PM	44624
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/2/2019 12:35:23 AM	44616
Surr: BFB	93.2	73.8-119		%Rec	1	5/2/2019 12:35:23 AM	44616
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/2/2019 12:35:23 AM	44616
Toluene	ND	0.049		mg/Kg	1	5/2/2019 12:35:23 AM	44616
Ethylbenzene	ND	0.049		mg/Kg	1	5/2/2019 12:35:23 AM	44616
Xylenes, Total	ND	0.099		mg/Kg	1	5/2/2019 12:35:23 AM	44616
Surr: 4-Bromofluorobenzene	94.1	80-120		%Rec	1	5/2/2019 12:35:23 AM	44616

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3
Project: Janie Conner
Collection Date: 4/25/2019 4:15:00 AM
Lab ID: 1904D89-008 **Matrix:** SOIL **Received Date:** 4/30/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1100	60		mg/Kg	20	5/1/2019 9:07:10 PM	44662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/1/2019 7:33:04 PM	44624
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/1/2019 7:33:04 PM	44624
Surr: DNOP	75.2	70-130		%Rec	1	5/1/2019 7:33:04 PM	44624
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/2/2019 12:58:39 AM	44616
Surr: BFB	100	73.8-119		%Rec	1	5/2/2019 12:58:39 AM	44616
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/2/2019 12:58:39 AM	44616
Toluene	ND	0.048		mg/Kg	1	5/2/2019 12:58:39 AM	44616
Ethylbenzene	ND	0.048		mg/Kg	1	5/2/2019 12:58:39 AM	44616
Xylenes, Total	ND	0.097		mg/Kg	1	5/2/2019 12:58:39 AM	44616
Surr: 4-Bromofluorobenzene	99.3	80-120		%Rec	1	5/2/2019 12:58:39 AM	44616

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH4
Project: Janie Conner
Collection Date: 4/26/2019 12:00:00 PM
Lab ID: 1904D89-009 **Matrix:** SOIL **Received Date:** 4/30/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1400	59		mg/Kg	20	5/1/2019 9:19:34 PM	44662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	31	9.3		mg/Kg	1	5/7/2019 9:51:36 AM	44736
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/7/2019 9:51:36 AM	44736
Surr: DNOP	98.6	70-130		%Rec	1	5/7/2019 9:51:36 AM	44736
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/2/2019 1:22:15 AM	44616
Surr: BFB	97.0	73.8-119		%Rec	1	5/2/2019 1:22:15 AM	44616
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/2/2019 1:22:15 AM	44616
Toluene	ND	0.050		mg/Kg	1	5/2/2019 1:22:15 AM	44616
Ethylbenzene	ND	0.050		mg/Kg	1	5/2/2019 1:22:15 AM	44616
Xylenes, Total	ND	0.10		mg/Kg	1	5/2/2019 1:22:15 AM	44616
Surr: 4-Bromofluorobenzene	97.0	80-120		%Rec	1	5/2/2019 1:22:15 AM	44616

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904D89**

06-May-19

Client: Souder, Miller & Associates

Project: Janie Conner

Sample ID: **MB-44638**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **44638**	RunNo: **59556**							
Prep Date: **5/1/2019**	Analysis Date: **5/1/2019**	SeqNo: **2007895**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-44638**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **44638**	RunNo: **59556**							
Prep Date: **5/1/2019**	Analysis Date: **5/1/2019**	SeqNo: **2007896**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.8	90	110			

Sample ID: **MB-44662**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **44662**	RunNo: **59556**							
Prep Date: **5/1/2019**	Analysis Date: **5/1/2019**	SeqNo: **2007930**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-44662**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **44662**	RunNo: **59556**							
Prep Date: **5/1/2019**	Analysis Date: **5/1/2019**	SeqNo: **2007931**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904D89**
06-May-19

Client: Souder, Miller & Associates
Project: Janie Conner

Sample ID: **LCS-44624**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **44624**	RunNo: **59549**
Prep Date: **4/30/2019**	Analysis Date: **5/1/2019**	SeqNo: **2006946** 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	96.3	63.9	124			
Surr: DNOP	3.8		5.000		75.6	70	130			

Sample ID: **MB-44624**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **44624**	RunNo: **59549**
Prep Date: **4/30/2019**	Analysis Date: **5/1/2019**	SeqNo: **2006948** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.2		10.00		81.9	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904D89**

06-May-19

Client: Souder, Miller & Associates

Project: Janie Conner

Sample ID: **LCS-44616**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **44616**	RunNo: **59560**
Prep Date: **4/30/2019**	Analysis Date: **5/1/2019**	SeqNo: **2008126** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.8	80.1	123			
Surr: BFB	1000		1000		101	73.8	119			

Sample ID: **MB-44616**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **44616**	RunNo: **59560**
Prep Date: **4/30/2019**	Analysis Date: **5/1/2019**	SeqNo: **2008129** 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	890		1000		88.9	73.8	119			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904D89**
06-May-19

Client: Souder, Miller & Associates
Project: Janie Conner

Sample ID: **LCS-44616** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **44616** RunNo: **59560**
Prep Date: **4/30/2019** Analysis Date: **5/1/2019** SeqNo: **2008175** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.0	80	120			
Toluene	0.94	0.050	1.000	0	93.9	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.7	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.2	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.2	80	120			

Sample ID: **MB-44616** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **44616** RunNo: **59560**
Prep Date: **4/30/2019** Analysis Date: **5/1/2019** SeqNo: **2008177** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.2	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **1904D89** RcptNo: **1**

Received By: **Isaiah Ortiz** **4/30/2019 9:00:00 AM** I-OX

Completed By: **Isaiah Ortiz** **4/30/2019 9:15:28 AM** I-OX

Reviewed By: VVZ 4/30/19
LB: ENM 4/30/19

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____
ENM 4/30/19

Special Handling (if applicable)

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

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.1	Good	Yes			

Chain-of-Custody Record

Client: SMA-Carlsbad.

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 day

Project Name: Janie Conner (JC on jars)

Project #:

Project Manager: Melodie Sanjari

Sampler: MRS

On Ice: ~~☑~~ Yes ☐ No

# of Coolers: 1 (-0.2°C)

Cooler Temp(including CF): ~~0.4°C~~ 0.1°C TO 4/30

HEAL No. 1904089

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/25/19	4:50	soil	SW1	4oz.		-001	✓	✓					✓			
	4:30		SW2			-002	✓	✓					✓			
	12:00		SW3			-003	✓	✓					✓			
↓	12:30		SW4			-004	✓	✓					✓			
4/26	11:00		SW5			-005	✓	✓					✓			
4/25	5:00		BH1			-006	✓	✓					✓			
	11:45		BH2			-007	✓	✓					✓			
↓	4:15		BH3			-008	✓	✓					✓			
4/26	12:00	↓	BH4	↓		-009	✓	✓					✓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4/29	10:00	M. Sanjari			4/29/19	1400
4/29/19	1900			Courier	4/30/19	0900

Remarks: Matador

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

Analysis Request

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 10, 2019

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

RE: Janie Conner TB OrderNo.: 1905372

Dear Melodie Sanjari:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/8/2019 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1905372**
Date Reported: **5/10/2019**

CLIENT: Souder, Miller & Associates
Project: Janie Conner TB
Lab ID: 1905372-001 **Matrix:** SOIL

Client Sample ID: BH2
Collection Date: 5/5/2019 12:00:00 PM
Received Date: 5/8/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1100	59		mg/Kg	20	5/9/2019 3:07:25 PM	44826

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905372**

10-May-19

Client: Souder, Miller & Associates

Project: Janie Conner TB

Sample ID: **MB-44826**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **44826**	RunNo: **59766**
Prep Date: **5/9/2019**	Analysis Date: **5/9/2019**	SeqNo: **2016237** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-44826**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **44826**	RunNo: **59766**
Prep Date: **5/9/2019**	Analysis Date: **5/9/2019**	SeqNo: **2016238** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.0	90	110			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **1905372** RcptNo: **1**

Received By: **Isaiah Ortiz** **5/8/2019 8:50:00 AM** I-OK

Completed By: **Leah Baca** **5/8/2019 9:27:45 AM** Leah SBaca

Reviewed By: LB 5/8/19

Labeled by DAD 5/8/19

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: DAD 5/8/19

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 2day

Project Name: Janie Conner TB

Project #:

Project Manager: Melodie Sanjari

Sampler: MRS

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 2.3°C

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1905372	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4 ✓	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/5/19	12:00	Soil	BH2	4oz		-001							✓			
5/5/19	12:30	Soil	BH4	"		-002		Please Hold For Potential analysis								

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/6/19	2:00	M Sanjari			5/6/19	1500
5/6/19	1900			courier	5/8/19	0850

Remarks: Matador ☆ Bill directly to SMA ☆

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

APPENDIX E
EXCAVATION PHOTO

APPENDIX F
Background Soil Data Report in the Loving/Malaga Area of Eddy County, NM

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

October 17, 2018

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

SUBJECT: Background Soil Data Report around Malaga/ Loving in Eddy County, New Mexico

Dear Ms. Maria Pruett:

Souder, Miller & Associates (SMA) has prepared this Report that describes soils types and background chloride concentrations around the Loving and Malaga Area in Eddy County, New Mexico. Figure 1 illustrates the vicinity and site locations described in this report.

1.0 Background

The soil types located under and around the Loving and Malaga, New Mexico area have a moderate to high electrical conductivity (EC) according to United States Department of Agriculture (USDA) and Natural Resource Conservation Service NRCS. "(EC) is the electrolytic conductivity of an extract from saturated soil paste, expressed as decisiemens per meter at 25 degrees C. Electrical conductivity is a measure of the concentration of water-soluble salts in soils. It is used to indicate saline soils. High concentrations of neutral salts, such as sodium chloride and sodium sulfate." (NRCS soil sampling guide) According to the Eddy County Soil Survey soils are moderately high in sodium chloride and sodium sulfate with baseline (EC) from 2-5 decisiemens per meter at 25 degrees C see NRCS Electrical Conductivity Map (Appendix B).

SMA and Matador have confirmed this moderately high (EC) effect from the area soil types in several baseline sampling events conducted on Matadors behalf prior to E&P operations (see appendix A). All attached third party lab results have been collected in the same area soil types that surround the irrigated river valley near the Loving and Malaga, New Mexico. The five representative baseline sample events where collected by SMA and are summarized in (Table # 1).

- Tom Walters baseline soil data shows pre-Matador oil and gas operation EPA 300 Cl- from 2300ppm- 3900ppm
- Warren baseline soil data shows pre-Matador oil and gas operation EPA 300 Cl- from 170ppm- 2400ppm
- Guitar baseline soil data shows pre-Matador oil and gas operation EPA 300 Cl- from 2200ppm- 4000ppm
- B Banker baseline soil data shows pre-Matador oil and gas operation EPA 300 Cl- from 55ppm- 3500ppm
- Janie Conner Production Pad baseline soil data shows pre-Matador oil and gas operation EPA 300 Cl- from 170ppm- 1800ppm

In addition, SMA and Matador have confirmed this moderately high (EC) effect from the area soil types in Background delineation from sampling events conducted on Matadors behalf by SMA for remedial purposes.

- Paul background soil data BG1, BG2, and BG3 shows non-disturbed by Matador oil and gas operations EPA 300 Cl- from 43ppm-5300ppm
- Tiger background soil data BG1 shows non-disturbed by Matador oil and gas operations EPA 300 Cl- from 24ppm-4800ppm
- Janie Connor #221 background soil data B65 shows non-disturbed by Matador oil and gas operations EPA 300 Cl- from 79ppm-1200ppm

As outlined above, the high concentrations of neutral salts, such as sodium chloride and sodium sulfate should be found in the soil types; Gypsum Cottonwood, Karro Loam, Pima Silt, Regan and Reeves loams. Several samples were taken at one background location to a total depth of 10 feet and tested for sulfates. SMA has also included data from three other background locations in the same soil types as located at the Paul location. Sulfates can be used as a reference criterion on this release due to the natural parent material found in the area soil types and its low concentrations found in the produced water from the area wells, formations, and the Tiger Facility 2RF-106 (see attached data in appendix A). Four background sample locations (shown in Table #1) were used to establish the background level of sulfates in the area and serve as further proof of the NRCS, USDA and SMA baseline data. The samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for sulfates (all lab reports are located in appendix A).

2.0 Soil Remediation Summary

This report has been created to show soil types and their water-soluble salts properties around Loving and Malaga, New Mexico. Soil data from online resources from United States Department of Agriculture, Natural Resource Conservation Service indicates certain soil types in the area have a moderate to high EC which indicates saline soils. Saline soils contain sodium chloride and sodium sulfate. SMA soil sampling prior to E&P operations and background samples during remediation activities were used to show laboratory data of these soils. It is shown from the laboratory that certain soil types have exhibited a higher chloride constitution.

3.0 Scope and Limitations

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this 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.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Reviewed by:

Lucas C. Middleton
Staff Scientist

Austin Weyant
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Sample Location Map

Tables:

Table 1: Summary of Sample Results

Appendices:

Appendix A: Laboratory Analytical Reports (BASELINE AND BACKGROUND)
Appendix B: NRCS ELECTRICAL CONDUCTIVITY MAP
Appendix C: NRCS Custom Soil Resource Report for Eddy Area, New Mexico

FIGURES

Sample Location Map
Matador Locations
Eddy County New Mexico

Figure1

Document: C:\Users\lcm\Documents\GIS DATA\MAPS\Janie Conner background #2221 Figure 2.mxd

Date Saved: 10/16/2018

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

Drawn Lucas Middleton
Checked
Approved

SMA
201 South Halaguena Street
Carlsbad, New Mexico 88221
(575) 689.7040
www.soudermiller.com
Serving the Southwest & Rocky Mountains

TABLES

Table 1

SITE	Sample Number	Sample Date	Depth (feet bgs)	Action	Nitrate mg/L	Sulfate mg/Kg	Cl- Laboratory mg/Kg
JANIE CONNER #201, PRODUCTION	P1	7/22/2016	0.5'	Baseline	--	--	170
	P2	7/22/2016	0.5'	Baseline	--	--	1600
	P3	7/22/2016	0.5'	Baseline	--	--	1800
JANIE CONNER #221, West of Location	B65	9/18/2018	1'	BackGround	--	--	1100
		9/18/2018	2'	BackGround	--	--	1200
		9/18/2018	3'	BackGround	--	--	550
		9/18/2018	4'	BackGround	--	--	840
		9/18/2018	5'	BackGround	--	--	79
		9/18/2018	6'	BackGround	--	--	110
Tom Waltors	L1	10/20/2016	0.5	Baseline	--	--	3200
	L2	10/20/2016	0.5	Baseline	--	--	3600
	L3	10/20/2016	0.5	Baseline	--	--	3900
	L4	10/20/2016	0.5	Baseline	--	--	2300
	L5	10/20/2016	0.5	Baseline	--	--	3000
Warren	L1	5/2/2017	0.5	Baseline	--	--	1100
	L2	5/2/2017	0.5	Baseline	--	--	120
	L3	5/2/2017	0.5	Baseline	--	--	170
	L4	5/2/2017	0.5	Baseline	--	--	2400
Guitar	L1	1/9/2017	0.5	Baseline	--	--	4000
	L2	1/9/2017	0.5	Baseline	--	--	3500
	L3	1/9/2017	0.5	Baseline	--	--	2200
	L4	1/9/2017	0.5	Baseline	--	--	6300
	L5	1/9/2017	0.5	Baseline	--	--	3800
B Banker	BL1	5/3/2016	0.5	Baseline	--	--	<20
	BL2	5/3/2016	0.5	Baseline	--	--	120
	BL3	5/3/2016	0.5	Baseline	--	--	55
	BL4	5/3/2016	0.5	Baseline	--	--	3500
	BL5	5/3/2016	0.5	Baseline	--	--	<20
Paul	BG1	6/7/2017	0.5	Background	--	--	43
		6/7/2017	1	Background	--	--	2600
		6/7/2017	2	Background	--	--	3000
		6/7/2017	4	Background	--	--	5300
	BG2	6/7/2017	0.5	Background	--	--	<30
		6/7/2017	1	Background	--	--	530
		6/7/2017	2	Background	--	--	1500
		6/7/2017	4	Background	--	--	2600
Paul	BGC	6/12/2017	0.5	Background	6.3	4800	24
		6/12/2017	1	Background	<1.5	7700	1000
		6/12/2017	2	Background	1.5	10000	3200
		6/12/2017	3	Background	1.6	7800	4800
		6/12/2017	4	Background	<1.5	9500	4800
		6/12/2017	6	Background	<1.5	5300	3500
		6/12/2017	8	Background	1.6	8300	2400
		6/12/2017	10	Background	<1.5	7200	2700
		6/12/2017	12	Background	<1.5	7100	1300

"--" = Not Analyzed

APPENDIX A:

LABORATORY ANALYTICAL REPORTS (BASELINE AND BACKGROUND)

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

September 28, 2018

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

RE: Janie Connol B65 OrderNo.: 1809C05

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 6 sample(s) on 9/20/2018 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Lab Order: 1809C05
Project: Janie Connol B65

Lab ID: 1809C05-001 **Collection Date:** 9/18/2018 11:00:00 AM
Client Sample ID: B65-1 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	1100	30		mg/Kg	20	9/26/2018 5:13:32 PM	40598

Lab ID: 1809C05-002 **Collection Date:** 9/18/2018 11:10:00 AM
Client Sample ID: B65-2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	1300	75		mg/Kg	50	9/27/2018 10:23:02 PM	40598

Lab ID: 1809C05-003 **Collection Date:** 9/18/2018 11:20:00 AM
Client Sample ID: B65-3 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	550	30		mg/Kg	20	9/26/2018 6:03:10 PM	40598

Lab ID: 1809C05-004 **Collection Date:** 9/18/2018 11:30:00 AM
Client Sample ID: B65-4 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	840	30		mg/Kg	20	9/26/2018 6:15:34 PM	40598

Lab ID: 1809C05-005 **Collection Date:** 9/18/2018 11:40:00 AM
Client Sample ID: B65-5 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	79	30		mg/Kg	20	9/26/2018 6:27:59 PM	40598

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 Quanitative Limit	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Janie Connol B65

Lab Order: 1809C05

Lab ID: 1809C05-006
Collection Date: 9/18/2018 11:50:00 AM
Client Sample ID: B65-6
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	110	30		mg/Kg	20	9/26/2018 6:40:24 PM	40598

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 Quanitative Limit	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1809C05**

28-Sep-18

Client: Souder, Miller & Associates

Project: Janie Connol B65

Sample ID	**MB-40598**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**40598**	RunNo:	**54458**					
Prep Date:	**9/26/2018**	Analysis Date:	**9/26/2018**	SeqNo:	**1805031**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-40598**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**40598**	RunNo:	**54458**					
Prep Date:	**9/26/2018**	Analysis Date:	**9/26/2018**	SeqNo:	**1805032**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	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 Quanitative 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

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: **1809C05** RcptNo: **1**

Received By: **Erin Melendrez** **9/20/2018 8:50:00 AM**

Completed By: **Ashley Gallegos** **9/20/2018 12:42:23 PM**

Reviewed By: JAB 09/20/18

labeled by: ENM 9/20/18

Chain of Custody

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

Log In

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

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

Adjusted? ____

Checked by: ____

ENM 9/20/18

Special Handling (if applicable)

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

Person Notified: ____ Date ____

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

Regarding: ____

Client Instructions: ____

16. Additional remarks:

17. **Cooler Information**

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

Chain-of-Custody Record

Client: SMA Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 day

Project Name: Jamie Comal BGS

Project #:

Project Manager: Austin Weyand

Sampler: LCM

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.1-0.9(CF)=0.2

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1809C05	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F^-, Cl^-, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
9-18-18	11:00	Soil	BG S-1	4oz		-001								X								
	11:10		BG S-2			-002								X								
	11:20		BG S-3			-003								X								
	11:30		BG S-4			-004								X								
	11:40		BG S-5			-005								X								
	11:50		BG S-6			-006								X								

Date	Time	Relinquished by:	Received by:	Date	Time
9-19-18	7:00			9/19/18	1500
9/19/18	1700		Courier ENH 9/20/18	9/20/18	0850

Remarks:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 16, 2016

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

RE: Tom Waltors OrderNo.: 1611165

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 11/1/2016 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order: **1611165**
Date Reported: **11/16/2016**

CLIENT: Souder, Miller & Associates
Project: Tom Waltors
Lab Order: 1611165

Lab ID: 1611165-001 **Collection Date:** 10/20/2016 10:00:00 AM
Client Sample ID: L1 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	3200	150		mg/Kg	100	11/14/2016 1:24:36 PM	28450

Lab ID: 1611165-002 **Collection Date:** 10/20/2016 10:00:00 AM
Client Sample ID: L2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	3600	150		mg/Kg	100	11/14/2016 1:37:01 PM	28450

Lab ID: 1611165-003 **Collection Date:** 10/20/2016 10:00:00 AM
Client Sample ID: L3 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	3900	150		mg/Kg	100	11/14/2016 1:49:25 PM	28450

Lab ID: 1611165-004 **Collection Date:** 10/20/2016 10:00:00 AM
Client Sample ID: L4 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2300	150		mg/Kg	100	11/14/2016 2:01:50 PM	28450

Lab ID: 1611165-005 **Collection Date:** 10/20/2016 10:00:00 AM
Client Sample ID: L5 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	3000	150		mg/Kg	100	11/14/2016 2:14:14 PM	28450

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
R	RPD outside accepted recovery limits
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611165**

16-Nov-16

Client: Souder, Miller & Associates

Project: Tom Waltors

Sample ID	**MB-28450**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**28450**	RunNo:	**38449**					
Prep Date:	**11/3/2016**	Analysis Date:	**11/3/2016**	SeqNo:	**1200952**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-28450**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**28450**	RunNo:	**38449**					
Prep Date:	**11/3/2016**	Analysis Date:	**11/3/2016**	SeqNo:	**1200953**	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.	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
R	RPD outside accepted recovery limits	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

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: 1611165 | RcptNo: 1

Received by/date: AG 11/01/16

Logged By: Ashley Gallegos | 11/1/2016 10:00:00 AM

Completed By: Ashley Gallegos | 11/2/2016 9:49:24 PM

Reviewed By: aj 11/03/16

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° 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)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	Adjusted?
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	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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.1	Good	Yes			

Chain-of-Custody Record

Client: Souder, Miller and Associates

Mailing Address: 201 S. Halagueno

Phone #: 575-689-5351

email or Fax#: lucas.middleton@soudermiller.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type)_____

Turn-Around Time:
☐ Standard ☐ Rush_____

Project Name: Tom Walters

Project #:

Project Manager: Austin Weyant

Sampler: LCM
On Ice: ☑ Yes ☐ No
Sample Temperature: 4.1°C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611105	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diese	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
10/20/16	10:00	Soil	L1	4oz		-001	X		X					X								
"	"	"	L2	"		-002	X		X					X								
"	"	"	L3	"		-003	X		X					X								
"	"	"	L4	"		-004	X		X					X								
"	"	"	L5	"		-005	X		X					X								

Date:	Time	Relinquished by:	Received by:	Date	Time
			[signature]	11/01/16	1000
Date:	Time	Relinquished by:	Received by:	Date	Time

Remarks:

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

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

June 16, 2017

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

RE: Warner OrderNo.: 1706268

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/6/2017 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order: **1706268**
Date Reported: **6/16/2017**

CLIENT: Souder, Miller & Associates
Project: Warner
Lab Order: 1706268

Lab ID: 1706268-001 **Collection Date:** 5/2/2017 11:00:00 AM
Client Sample ID: L1 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1100	75	H	mg/Kg	50	6/12/2017 5:12:47 PM	32211

Lab ID: 1706268-002 **Collection Date:** 5/2/2017 11:00:00 AM
Client Sample ID: L2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	120	30	H	mg/Kg	20	6/10/2017 12:08:34 AM	32211

Lab ID: 1706268-003 **Collection Date:** 5/2/2017 11:00:00 AM
Client Sample ID: L3 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	170	30	H	mg/Kg	20	6/10/2017 12:20:59 AM	32211

Lab ID: 1706268-004 **Collection Date:** 5/2/2017 11:00:00 AM
Client Sample ID: L4 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2400	75	H	mg/Kg	50	6/12/2017 5:25:11 PM	32211

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 Quanitative Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706268**

16-Jun-17

Client: Souder, Miller & Associates

Project: Warner

Sample ID	**MB-32211**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**32211**	RunNo:	**43415**					
Prep Date:	**6/9/2017**	Analysis Date:	**6/9/2017**	SeqNo:	**1366812**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-32211**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**32211**	RunNo:	**43415**					
Prep Date:	**6/9/2017**	Analysis Date:	**6/9/2017**	SeqNo:	**1366813**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	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 Quanitative Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1706268 RcptNo: 1

Received By: Richie Eriacho 6/6/2017 10:15:00 AM

Completed By: Richie Eriacho 6/6/2017 2:19:36 PM

Reviewed By: SRE 06/06/17

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° 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)
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 ☐	Adjusted? _____
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: _____

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	2.6	Good				

Chain of Custody Record

Client: SMA Carlsbad

☐ Standard ☐ Rush

Project Name: Warner

Project #: 6

Mailing Address:

Phone #:

email or Fax#:

Project Manager: Austin Weyant

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Sampler: LCM

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.6°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1706268	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
5/2/17	11 am	Soil	L1	402		-001								✓				
5/2/17	11 am	Soil	L2	402		-002								✓				
5/2/17	11 am	Soil	L3	402		-003								✓				
5/2/17	11 am	Soil	L4	402		-004								✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
6-5-17	2:00			6/5/17	1400
6/5/17	1700			6/6/17	1015

Remarks:

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

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

January 24, 2017

Austin Weyant

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

RE: Guitas #221 OrderNo.: 1701762

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/18/2017 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order: **1701762**
Date Reported: **1/24/2017**

CLIENT: Souder, Miller & Associates
Project: Guitas #221
Lab Order: 1701762

Lab ID: 1701762-001 **Collection Date:** 1/9/2017 7:00:00 AM
Client Sample ID: L1 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	4000	150		mg/Kg	100	1/23/2017 1:29:23 PM	29816

Lab ID: 1701762-002 **Collection Date:** 1/9/2017 7:00:00 AM
Client Sample ID: L2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	3500	150		mg/Kg	100	1/23/2017 1:41:48 PM	29816

Lab ID: 1701762-003 **Collection Date:** 1/9/2017 7:00:00 AM
Client Sample ID: L3 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	2200	150		mg/Kg	100	1/23/2017 2:19:02 PM	29816

Lab ID: 1701762-004 **Collection Date:** 1/9/2017 7:00:00 AM
Client Sample ID: L4 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	6300	300		mg/Kg	200	1/23/2017 2:31:27 PM	29816

Lab ID: 1701762-005 **Collection Date:** 1/9/2017 7:00:00 AM
Client Sample ID: L5 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	3800	150		mg/Kg	100	1/23/2017 2:43:51 PM	29816

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
R	RPD outside accepted recovery limits	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#: **1701762**

24-Jan-17

Client: Souder, Miller & Associates

Project: Guitas #221

Sample ID	**MB-29816**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**29816**	RunNo:	**40191**					
Prep Date:	**1/20/2017**	Analysis Date:	**1/20/2017**	SeqNo:	**1260055**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-29816**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**29816**	RunNo:	**40191**					
Prep Date:	**1/20/2017**	Analysis Date:	**1/20/2017**	SeqNo:	**1260056**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	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
R	RPD outside accepted recovery limits	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

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: 1701762 | RcptNo: 1

Received by/date: LAG 01/18/17

Logged By: Ashley Gallegos 1/18/2017 9:30:00 AM

Completed By: Ashley Gallegos 1/18/2017 12:28:42 PM

Reviewed By: 01/18/17

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° 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Yes			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Gutiral #221

Project #:

Project Manager: Austin Weyant

Sampler: LCM

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.0 - 1.0 CF = 2.0°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1701762	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
1-9-16	7:00	Soil	L1	4oz		-001								X								
			L2			-002								X								
			L3			-003								X								
			L4			-004								X								
			L5			-005								X								

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
1-11-16	9:00			1/18/17	0930	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 12, 2016

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

RE: B Banker OrderNo.: 1605079

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/3/2016 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BL-1
Project: B Banker
Collection Date: 4/29/2016 12:00:00 PM
Lab ID: 1605079-001
Matrix: SOIL
Received Date: 5/3/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	5/9/2016 1:49:28 PM	25197
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/6/2016 6:49:57 PM	25139
Surr: DNOP	21.1	70-130	S	%Rec	1	5/6/2016 6:49:57 PM	25139
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/4/2016 12:04:04 PM	25130
Surr: BFB	95.0	80-120		%Rec	1	5/4/2016 12:04:04 PM	25130
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	5/4/2016 12:04:04 PM	25130
Benzene	ND	0.025		mg/Kg	1	5/4/2016 12:04:04 PM	25130
Toluene	ND	0.049		mg/Kg	1	5/4/2016 12:04:04 PM	25130
Ethylbenzene	ND	0.049		mg/Kg	1	5/4/2016 12:04:04 PM	25130
Xylenes, Total	ND	0.099		mg/Kg	1	5/4/2016 12:04:04 PM	25130
Surr: 4-Bromofluorobenzene	95.7	80-120		%Rec	1	5/4/2016 12:04:04 PM	25130

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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BL-2
Project: B Banker
Collection Date: 4/29/2016 12:00:00 PM
Lab ID: 1605079-002
Matrix: SOIL
Received Date: 5/3/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	120	30		mg/Kg	20	5/9/2016 2:26:42 PM	25197
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/6/2016 7:11:48 PM	25139
Surr: DNOP	14.6	70-130	S	%Rec	1	5/6/2016 7:11:48 PM	25139
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/4/2016 10:50:01 PM	25130
Surr: BFB	95.7	80-120		%Rec	1	5/4/2016 10:50:01 PM	25130
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	5/4/2016 10:50:01 PM	25130
Benzene	ND	0.024		mg/Kg	1	5/4/2016 10:50:01 PM	25130
Toluene	ND	0.048		mg/Kg	1	5/4/2016 10:50:01 PM	25130
Ethylbenzene	ND	0.048		mg/Kg	1	5/4/2016 10:50:01 PM	25130
Xylenes, Total	ND	0.096		mg/Kg	1	5/4/2016 10:50:01 PM	25130
Surr: 4-Bromofluorobenzene	96.5	80-120		%Rec	1	5/4/2016 10:50:01 PM	25130

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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BL-3
Project: B Banker
Collection Date: 4/29/2016 12:00:00 PM
Lab ID: 1605079-003
Matrix: SOIL
Received Date: 5/3/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	55	30		mg/Kg	20	5/9/2016 2:39:06 PM	25197
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/6/2016 7:33:46 PM	25139
Surr: DNOP	9.41	70-130	S	%Rec	1	5/6/2016 7:33:46 PM	25139
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/4/2016 11:13:30 PM	25130
Surr: BFB	97.1	80-120		%Rec	1	5/4/2016 11:13:30 PM	25130
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.093		mg/Kg	1	5/4/2016 11:13:30 PM	25130
Benzene	ND	0.023		mg/Kg	1	5/4/2016 11:13:30 PM	25130
Toluene	ND	0.047		mg/Kg	1	5/4/2016 11:13:30 PM	25130
Ethylbenzene	ND	0.047		mg/Kg	1	5/4/2016 11:13:30 PM	25130
Xylenes, Total	ND	0.093		mg/Kg	1	5/4/2016 11:13:30 PM	25130
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	1	5/4/2016 11:13:30 PM	25130

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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BL-4
Project: B Banker
Collection Date: 4/29/2016 12:00:00 PM
Lab ID: 1605079-004
Matrix: SOIL
Received Date: 5/3/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	3500	150		mg/Kg	100	5/11/2016 3:17:06 AM	25197
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/6/2016 7:55:39 PM	25139
Surr: DNOP	9.15	70-130	S	%Rec	1	5/6/2016 7:55:39 PM	25139
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/5/2016 12:47:24 AM	25130
Surr: BFB	94.2	80-120		%Rec	1	5/5/2016 12:47:24 AM	25130
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	5/5/2016 12:47:24 AM	25130
Benzene	ND	0.024		mg/Kg	1	5/5/2016 12:47:24 AM	25130
Toluene	ND	0.048		mg/Kg	1	5/5/2016 12:47:24 AM	25130
Ethylbenzene	ND	0.048		mg/Kg	1	5/5/2016 12:47:24 AM	25130
Xylenes, Total	ND	0.095		mg/Kg	1	5/5/2016 12:47:24 AM	25130
Surr: 4-Bromofluorobenzene	95.3	80-120		%Rec	1	5/5/2016 12:47:24 AM	25130

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
R	RPD outside accepted recovery limits
RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix
W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BL-5
Project: B Banker
Collection Date: 4/29/2016 12:00:00 PM
Lab ID: 1605079-005
Matrix: SOIL
Received Date: 5/3/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	5/9/2016 3:03:54 PM	25197
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/6/2016 8:17:38 PM	25139
Surr: DNOP	8.53	70-130	S	%Rec	1	5/6/2016 8:17:38 PM	25139
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/5/2016 1:10:55 AM	25130
Surr: BFB	95.3	80-120		%Rec	1	5/5/2016 1:10:55 AM	25130
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.092		mg/Kg	1	5/5/2016 1:10:55 AM	25130
Benzene	ND	0.023		mg/Kg	1	5/5/2016 1:10:55 AM	25130
Toluene	ND	0.046		mg/Kg	1	5/5/2016 1:10:55 AM	25130
Ethylbenzene	ND	0.046		mg/Kg	1	5/5/2016 1:10:55 AM	25130
Xylenes, Total	ND	0.092		mg/Kg	1	5/5/2016 1:10:55 AM	25130
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	5/5/2016 1:10:55 AM	25130

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
R	RPD outside accepted recovery limits	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#: **1605079**

12-May-16

Client: Souder, Miller & Associates

Project: B Banker

Sample ID	**MB-25197**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**25197**	RunNo:	**34101**					
Prep Date:	**5/6/2016**	Analysis Date:	**5/9/2016**	SeqNo:	**1051147**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-25197**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**25197**	RunNo:	**34101**					
Prep Date:	**5/6/2016**	Analysis Date:	**5/9/2016**	SeqNo:	**1051148**	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.	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
R	RPD outside accepted recovery limits	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#: **1605079**

12-May-16

Client: Souder, Miller & Associates

Project: B Banker

Sample ID **MB-25139**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **25139**	RunNo: **34001**
Prep Date: **5/4/2016**	Analysis Date: **5/5/2016**	SeqNo: **1047876** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.4		10.00		74.0	70	130			

Sample ID **1605058-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **25139**	RunNo: **34001**
Prep Date: **5/4/2016**	Analysis Date: **5/5/2016**	SeqNo: **1048316** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.05	0	97.0	33.9	141			
Surr: DNOP	4.1		5.005		81.4	70	130			

Sample ID **1605058-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **25139**	RunNo: **34001**
Prep Date: **5/4/2016**	Analysis Date: **5/5/2016**	SeqNo: **1048317** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.20	0	96.7	33.9	141	0.0323	20	
Surr: DNOP	4.0		5.020		79.7	70	130	0	0	

Sample ID **LCS-25139**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **25139**	RunNo: **34001**
Prep Date: **5/4/2016**	Analysis Date: **5/5/2016**	SeqNo: **1048346** 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	92.4	65.8	136			
Surr: DNOP	3.7		5.000		74.0	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
R	RPD outside accepted recovery limits	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#: **1605079**

12-May-16

Client: Souder, Miller & Associates

Project: B Banker

Sample ID **MB-25130**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **25130**	RunNo: **33977**
Prep Date: **5/3/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047281** 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	910		1000		91.4	80	120			

Sample ID **LCS-25130**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **25130**	RunNo: **33977**
Prep Date: **5/3/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047282** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.8	80	120			
Surr: BFB	970		1000		97.2	80	120			

Sample ID **1605079-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BL-1**	Batch ID: **25130**	RunNo: **33977**
Prep Date: **5/3/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047284** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	24.98	0	102	59.3	143			
Surr: BFB	1000		999.0		101	80	120			

Sample ID **1605079-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BL-1**	Batch ID: **25130**	RunNo: **33977**
Prep Date: **5/3/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047285** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	24.78	0	107	59.3	143	4.02	20	
Surr: BFB	1000		991.1		103	80	120	0	0	

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
R	RPD outside accepted recovery limits	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#: **1605079**

12-May-16

Client: Souder, Miller & Associates

Project: B Banker

Sample ID **MB-25130**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **25130**	RunNo: **33977**
Prep Date: **5/3/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047315** 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	0.93		1.000		92.9	80	120			

Sample ID **LCS-25130**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **25130**	RunNo: **33977**
Prep Date: **5/3/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047316** 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	95.3	61	143			
Benzene	1.0	0.025	1.000	0	100	75.3	123			
Toluene	0.93	0.050	1.000	0	93.3	80	124			
Ethylbenzene	0.88	0.050	1.000	0	88.0	82.8	121			
Xylenes, Total	2.6	0.10	3.000	0	87.2	83.9	122			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.4	80	120			

Sample ID **1605082-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **25130**	RunNo: **33977**
Prep Date: **5/3/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047319** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.98	0.098	0.9775	0	99.8	69.2	128			
Benzene	1.1	0.024	0.9775	0	108	71.5	122			
Toluene	0.99	0.049	0.9775	0	101	71.2	123			
Ethylbenzene	0.95	0.049	0.9775	0	96.8	75.2	130			
Xylenes, Total	2.8	0.098	2.933	0	96.4	72.4	131			
Surr: 4-Bromofluorobenzene	0.94		0.9775		96.4	80	120			

Sample ID **1605082-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **25130**	RunNo: **33977**
Prep Date: **5/3/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047320** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.89	0.099	0.9901	0	90.3	69.2	128	8.72	20	
Benzene	0.98	0.025	0.9901	0	99.2	71.5	122	7.34	20	
Toluene	0.96	0.050	0.9901	0	96.7	71.2	123	2.87	20	
Ethylbenzene	0.95	0.050	0.9901	0	96.0	75.2	130	0.454	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
R	RPD outside accepted recovery limits	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#: **1605079**

12-May-16

Client: Souder, Miller & Associates

Project: B Banker

Sample ID	**1605082-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID:	**25130**	RunNo:	**33977**					
Prep Date:	**5/3/2016**	Analysis Date:	**5/4/2016**	SeqNo:	**1047320**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	2.8	0.099	2.970	0	95.3	72.4	131	0.0491	20	
Surr: 4-Bromofluorobenzene	1.0		0.9901		101	80	120	0	0	

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
R	RPD outside accepted recovery limits	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

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: 1605079 RcptNo: 1

Received by/date: 05/03/16

Logged By: Lindsay Mangin 5/3/2016 9:40:00 AM

Completed By: Lindsay Mangin 5/3/2016 1:33:11 PM

Reviewed By: 05/03/16

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° 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 ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by

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. Additonal remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: SMA	☑ Standard ☐ Rush
Mailing Address: 201 S HALAGUENO	Project Name: B BANKER
Phone #: 575 689 7040	Project #:
email or Fax#:	Project Manager: A WEYANT
QA/QC Package: ☑ Standard ☐ Level 4 (Full Validation)	Sampler: LCM
Accreditation: ☐ NELAP ☐ Other	On Ice: ☒ Yes ☐ No
☐ EDD (Type)	Sample Temperature: 2.8

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1605079	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
4/29	12:00	SOIL	BL-1	4oz		-001	X		X					X				
4/29	12:00		BL-2			-002												
4/29	12:00		BL-3			-003												
4/29	12:00		BL-4			-004												
4/29	12:00	↓	BL-5	↓		-005	↓		↓					↓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
			[signature]	05/03/16	0940
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

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

June 26, 2017

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

RE: Paul 2nd OrderNo.: 1706671

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 10 sample(s) on 6/13/2017 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Paul 2nd
Lab Order: 1706671

Lab ID: 1706671-001 **Collection Date:** 6/7/2017 12:00:00 PM
Client Sample ID: BG1-5 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	43	30		mg/Kg	20	6/21/2017 11:21:24 AM	32409

Lab ID: 1706671-002 **Collection Date:** 6/7/2017 12:00:00 PM
Client Sample ID: BG1-1 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2600	75		mg/Kg	50	6/22/2017 6:35:28 PM	32409

Lab ID: 1706671-003 **Collection Date:** 6/7/2017 12:00:00 PM
Client Sample ID: BG1-2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	3000	150		mg/Kg	100	6/22/2017 6:47:52 PM	32409

Lab ID: 1706671-004 **Collection Date:** 6/7/2017 12:00:00 PM
Client Sample ID: BG1-4 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	5300	300		mg/Kg	200	6/22/2017 7:00:17 PM	32409

Lab ID: 1706671-005 **Collection Date:** 6/7/2017 11:00:00 AM
Client Sample ID: BG2-5 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	6/21/2017 1:00:40 PM	32409

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Paul 2nd
Lab Order: 1706671

Lab ID: 1706671-006 **Collection Date:** 6/7/2017 11:00:00 AM
Client Sample ID: BG2-1 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	530	30		mg/Kg	20	6/21/2017 1:13:05 PM	32409

Lab ID: 1706671-007 **Collection Date:** 6/7/2017 11:00:00 AM
Client Sample ID: BG2-2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1500	75		mg/Kg	50	6/22/2017 7:12:42 PM	32409

Lab ID: 1706671-008 **Collection Date:** 6/7/2017 11:00:00 AM
Client Sample ID: BG2-4 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2600	150		mg/Kg	100	6/22/2017 7:25:07 PM	32409

Lab ID: 1706671-009 **Collection Date:** 6/7/2017 1:00:00 PM
Client Sample ID: A1-2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	650	30		mg/Kg	20	6/21/2017 1:50:18 PM	32409

Lab ID: 1706671-010 **Collection Date:** 6/7/2017 2:00:00 PM
Client Sample ID: A2-3 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1600	75		mg/Kg	50	6/22/2017 7:37:32 PM	32409

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 Quanitative 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#: **1706671**

26-Jun-17

Client: Souder, Miller & Associates

Project: Paul 2nd

Sample ID	**MB-32409**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**32409**	RunNo:	**43687**					
Prep Date:	**6/21/2017**	Analysis Date:	**6/21/2017**	SeqNo:	**1377078**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-32409**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**32409**	RunNo:	**43687**					
Prep Date:	**6/21/2017**	Analysis Date:	**6/21/2017**	SeqNo:	**1377079**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.7	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 Quanitative 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

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: 1706671 RcptNo: 1

Received By: Richie Eriacho 6/13/2017 9:45:00 AM

Completed By: Ashley Gallegos 6/13/2017 12:50:23 PM

Reviewed By: ENM 06/13/17

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° 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Paul 2nd

Project #:

Project Manager: Austin Weyant

Sampler: LCM/MRS

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1706671	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
6/1/17	12:00	Soil	BG1-5	4oz.		-001								X				
			BG1-1			-002								X				
			BG1-2			-003								X				
	↓		BG1-4			-004								X				
	11 am		BG2-5			-005								X				
			BG2-1			-006								X				
			BG2-2			-007								X				
↓	↓		BG2-4	↓		-008								X				
↓	1pm		A1-2			-009								X				
↓	2pm	↓	A2-3	↓		-010								X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
12/17	1900	Austin Weyant		6/2/17	1400
12/17	1900			6/13/17	0945

Remarks:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 30, 2017

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

RE: Matador Paul 2nd OrderNo.: 1706A44

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 21 sample(s) on 6/20/2017 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1706A44**
Date Reported: **6/30/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW2
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-001
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	5500	300		mg/Kg	200	6/27/2017 4:36:37 AM	32485
Nitrogen, Nitrate (As N)	8.4	6.0		mg/Kg	20	6/26/2017 1:05:47 PM	32485
Sulfate	6400	300		mg/Kg	200	6/27/2017 4:36:37 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW4
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-002
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	120	30		mg/Kg	20	6/26/2017 2:20:15 PM	32485
Nitrogen, Nitrate (As N)	1.9	0.30		mg/Kg	1	6/26/2017 1:43:01 PM	32485
Sulfate	5800	75		mg/Kg	50	6/27/2017 4:49:02 AM	32485

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW5
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-003 **Matrix:** SOIL **Received Date:** 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1000	30		mg/Kg	20	6/26/2017 2:45:04 PM	32485
Nitrogen, Nitrate (As N)	2.3	1.5		mg/Kg	5	6/26/2017 2:32:40 PM	32485
Sulfate	5400	75		mg/Kg	50	6/27/2017 5:01:27 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW6
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-004
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	19	7.5		mg/Kg	5	6/26/2017 2:57:28 PM	32485
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	6/26/2017 2:57:28 PM	32485
Sulfate	5300	75		mg/Kg	50	6/27/2017 5:13:52 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW7
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-005 **Matrix:** SOIL **Received Date:** 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	15	7.5		mg/Kg	5	6/26/2017 3:22:16 PM	32485
Nitrogen, Nitrate (As N)	1.7	1.5		mg/Kg	5	6/26/2017 3:22:16 PM	32485
Sulfate	5100	75		mg/Kg	50	6/27/2017 5:26:17 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW8
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-006 **Matrix:** SOIL **Received Date:** 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1200	75		mg/Kg	50	6/27/2017 5:38:41 AM	32485
Nitrogen, Nitrate (As N)	1.9	1.5		mg/Kg	5	6/26/2017 4:11:55 PM	32485
Sulfate	5100	75		mg/Kg	50	6/27/2017 5:38:41 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW9
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-007
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	140	7.5		mg/Kg	5	6/26/2017 4:36:44 PM	32485
Nitrogen, Nitrate (As N)	2.8	1.5		mg/Kg	5	6/26/2017 4:36:44 PM	32485
Sulfate	5100	75		mg/Kg	50	6/27/2017 5:51:06 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW11
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-008
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	87	7.5		mg/Kg	5	6/26/2017 5:01:33 PM	32485
Nitrogen, Nitrate (As N)	3.1	1.5		mg/Kg	5	6/26/2017 5:01:33 PM	32485
Sulfate	5300	75		mg/Kg	50	6/27/2017 6:03:30 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH 2-3
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-009
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	3000	150		mg/Kg	100	6/27/2017 6:15:54 AM	32485
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	6/26/2017 5:26:23 PM	32485
Sulfate	4100	150		mg/Kg	100	6/27/2017 6:15:54 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH 2-5.5
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-010 **Matrix:** SOIL **Received Date:** 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2100	150		mg/Kg	100	6/27/2017 6:28:19 AM	32485
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	6/26/2017 5:51:13 PM	32485
Sulfate	7500	150		mg/Kg	100	6/27/2017 6:28:19 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH 2-10
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-011
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1200	150		mg/Kg	100	6/27/2017 9:08:03 AM	32485
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	6/26/2017 6:40:51 PM	32485
Sulfate	6300	150		mg/Kg	100	6/27/2017 9:08:03 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH 4-1.5
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706A44-012
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	300	7.5		mg/Kg	5	6/26/2017 7:05:40 PM	32485
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	6/26/2017 7:05:40 PM	32485
Sulfate	5600	75		mg/Kg	50	6/27/2017 9:20:27 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BGC-S
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:45:00 AM
Lab ID: 1706A44-013
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	24	7.5		mg/Kg	5	6/26/2017 7:30:29 PM	32485
Nitrogen, Nitrate (As N)	6.3	1.5		mg/Kg	5	6/26/2017 7:30:29 PM	32485
Sulfate	4800	75		mg/Kg	50	6/27/2017 9:32:52 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BGC-1
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:45:00 AM
Lab ID: 1706A44-014
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1000	30		mg/Kg	20	6/26/2017 8:07:43 PM	32485
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	6/26/2017 7:55:18 PM	32485
Sulfate	7700	150		mg/Kg	100	6/27/2017 9:45:17 AM	32485

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BGC-2
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:45:00 AM
Lab ID: 1706A44-015
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	3200	150		mg/Kg	100	6/27/2017 9:57:41 AM	32503
Nitrogen, Nitrate (As N)	1.5	1.5		mg/Kg	5	6/26/2017 9:09:47 PM	32503
Sulfate	10000	150		mg/Kg	100	6/27/2017 9:57:41 AM	32503

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BGC-3
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:45:00 AM
Lab ID: 1706A44-016 **Matrix:** SOIL **Received Date:** 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	4800	300		mg/Kg	200	6/27/2017 10:10:05 AM	32503
Nitrogen, Nitrate (As N)	1.6	1.5		mg/Kg	5	6/26/2017 9:59:26 PM	32503
Sulfate	7800	300		mg/Kg	200	6/27/2017 10:10:05 AM	32503

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BGC-4
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:45:00 AM
Lab ID: 1706A44-017
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	4800	150		mg/Kg	100	6/27/2017 10:22:30 AM	32503
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	6/26/2017 10:24:16 PM	32503
Sulfate	9500	150		mg/Kg	100	6/27/2017 10:22:30 AM	32503

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BGC-6
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:45:00 AM
Lab ID: 1706A44-018
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	3500	150		mg/Kg	100	6/27/2017 10:34:55 AM	32503
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	6/26/2017 10:49:05 PM	32503
Sulfate	5300	150		mg/Kg	100	6/27/2017 10:34:55 AM	32503

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BGC-8
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:45:00 AM
Lab ID: 1706A44-019
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2400	150		mg/Kg	100	6/27/2017 10:47:20 AM	32503
Nitrogen, Nitrate (As N)	1.6	1.5		mg/Kg	5	6/26/2017 11:38:45 PM	32503
Sulfate	8300	150		mg/Kg	100	6/27/2017 10:47:20 AM	32503

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BGC-10
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:45:00 AM
Lab ID: 1706A44-020
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2700	150		mg/Kg	100	6/27/2017 10:59:44 AM	32503
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	6/27/2017 12:03:34 AM	32503
Sulfate	7200	150		mg/Kg	100	6/27/2017 10:59:44 AM	32503

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BGC-12
Project: Matador Paul 2nd
Collection Date: 6/12/2017 10:45:00 AM
Lab ID: 1706A44-021
Matrix: SOIL
Received Date: 6/20/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1300	150		mg/Kg	100	6/27/2017 11:36:58 AM	32503
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	6/27/2017 12:28:23 AM	32503
Sulfate	7100	150		mg/Kg	100	6/27/2017 11:36:58 AM	32503

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 Quanitative 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#: **1706A44**
30-Jun-17

Client: Souder, Miller & Associates
Project: Matador Paul 2nd

Sample ID	**MB-32485**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**32485**	RunNo:	**43787**					
Prep Date:	**6/26/2017**	Analysis Date:	**6/26/2017**	SeqNo:	**1380561**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID	**LCS-32485**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**32485**	RunNo:	**43787**					
Prep Date:	**6/26/2017**	Analysis Date:	**6/26/2017**	SeqNo:	**1380562**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	90	110			
Nitrogen, Nitrate (As N)	7.1	0.30	7.500	0	94.2	90	110			
Sulfate	28	1.5	30.00	0	93.7	90	110			

Sample ID	**1706A44-002AMS**	SampType:	**ms**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**SW4**	Batch ID:	**32485**	RunNo:	**43787**					
Prep Date:	**6/26/2017**	Analysis Date:	**6/26/2017**	SeqNo:	**1380574**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	8.7	0.30	7.500	1.907	90.0	61.8	142			

Sample ID	**1706A44-002AMSD**	SampType:	**msd**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**SW4**	Batch ID:	**32485**	RunNo:	**43787**					
Prep Date:	**6/26/2017**	Analysis Date:	**6/26/2017**	SeqNo:	**1380575**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	8.6	0.30	7.500	1.907	88.6	61.8	142	1.22	20	

Sample ID	**MB-32503**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**32503**	RunNo:	**43787**					
Prep Date:	**6/26/2017**	Analysis Date:	**6/26/2017**	SeqNo:	**1380605**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

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 Quanitative 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#: **1706A44**
30-Jun-17

Client: Souder, Miller & Associates
Project: Matador Paul 2nd

Sample ID	**LCS-32503**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**32503**		RunNo:	**43787**				
Prep Date:	**6/26/2017**	Analysis Date:	**6/26/2017**		SeqNo:	**1380606**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			
Nitrogen, Nitrate (As N)	7.3	0.30	7.500	0	97.5	90	110			
Sulfate	28	1.5	30.00	0	95.0	90	110			

Sample ID	**1706A44-015AMS**	SampType:	**ms**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**BGC-2**	Batch ID:	**32503**		RunNo:	**43787**				
Prep Date:	**6/26/2017**	Analysis Date:	**6/26/2017**		SeqNo:	**1380610**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	8.2	1.5	7.500	1.546	88.5	61.8	142			

Sample ID	**1706A44-015AMSD**	SampType:	**msd**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**BGC-2**	Batch ID:	**32503**		RunNo:	**43787**				
Prep Date:	**6/26/2017**	Analysis Date:	**6/26/2017**		SeqNo:	**1380611**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	8.1	1.5	7.500	1.546	87.7	61.8	142	0.768	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 Quanitative 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

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: 1706A44 RcptNo: 1

Received By: Sophia Campuzano 6/20/2017 10:15:00 AM

Completed By: Richie Eriacho 6/20/2017 10:54:47 AM

Reviewed By: Re 1aJ 6/20/17

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° 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 ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

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	6.0	Good				

Chain-of-Custody Record

Client: SMA - Carlsbad.

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5 day (Matador)

Project Name:
Matador: Paul 2nd

Project #:

Project Manager:
Austin Weyant

Sampler: LCM

On Ice: ☒ Yes ☐ No

Sample Temperature: 6.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1706448 4	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F^-, Cl^-, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
6/12/17	10:30	soil	SW2	402 jar		-001								✓								
			SW4			-002								✓								
			SW5			-003								✓								
			SW6			-004								✓								
			SW7			-005								✓								
			SW8			-006								✓								
			SW9			-007								✓								
			SW11			-008								✓								
			BH2-3			-009								✓								
			BH2-5.5			-010								✓								
			BH2-10			-011								✓								
			BH4-1.5			-012								✓								

Date	Time	Relinquished by	Received by	Date	Time
				6/19/17	0900
6/19/17	1900			06/20/17	1015

Remarks:

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

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5 day (matador)

Project Name: Matador: Paul 2nd.

Project #:

Project Manager: Austin Weyant

Sampler: LCM

On Ice: ☒ Yes ☐ No

Sample Temperature: 6.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1706A464
06/12/17	10:45	Soil	BG-C-S	1402 jar		-013 ~~-001~~
			BGC-1			-014 ~~-002~~
			BGC-2			-015 ~~-003~~
			BGC-3			-016 ~~-004~~
			BGC-4			-017 ~~-005~~
			BGC-6			-018 ~~-006~~
			BGC-8			-019 ~~-007~~
			BGC-10			-020 ~~-008~~
			BGC-12			-021 ~~-009~~

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO$_3$,NO$_2$,PO$_4$,SO$_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
							✓								
							✓								
							✓								
							✓								
							✓								
							✓								
							✓								
							✓								
							✓								

Date:	Time:	Relinquished by:	Received by:	Date	Time
				6/19/17	0800
Date: 6/19/17	Time: 1900	Relinquished by:	Received by: Stephanie Garcia	Date 06/20/17	Time 1015

Remarks:

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1706875**
Date Reported:

CLIENT: Souder, Miller & Associates
Client Sample ID: Tiger W1
Project: Tiger W1
Collection Date: 6/13/2017 3:00:00 PM
Lab ID: 1706875-001
Matrix: AQUEOUS
Received Date: 6/15/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
CARBON DIOXIDE						Analyst: **JRR**	
Total Carbon Dioxide	180	1.0	H	mg CO2/L	1	6/15/2017 8:49:30 PM	R43555
SPECIFIC GRAVITY						Analyst: **JRR**	
Specific Gravity	1.096	0			1	6/22/2017 1:34:00 PM	R43724
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	100000	5000	*	mg/L	1E	6/24/2017 4:31:52 AM	R43793
Sulfate	490	10	*	mg/L	20	6/16/2017 12:35:34 PM	R43601
SM2320B: ALKALINITY						Analyst: **JRR**	
Bicarbonate (As CaCO3)	150.6	20.00		mg/L CaCO3	1	6/15/2017 8:49:30 PM	R43555
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	6/15/2017 8:49:30 PM	R43555
Total Alkalinity (as CaCO3)	150.6	20.00		mg/L CaCO3	1	6/15/2017 8:49:30 PM	R43555
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	164000	2000	*D	mg/L	1	6/21/2017 5:49:00 PM	32389
SM4500-H+B: PH						Analyst: **JRR**	
pH	6.77		H	pH units	1	6/15/2017 8:49:30 PM	R43555
EPA METHOD 200.7: METALS						Analyst: **pmf**	
Barium	3.4	0.040	*	mg/L	20	6/22/2017 3:04:53 PM	32391
Calcium	6800	100		mg/L	100	6/22/2017 5:02:18 PM	32391
Iron	13	0.40	*	mg/L	20	6/22/2017 3:04:53 PM	32391
Magnesium	1000	20		mg/L	20	6/22/2017 3:04:53 PM	32391
Manganese	1.1	0.040	*	mg/L	20	6/22/2017 3:04:53 PM	32391
Potassium	860	20		mg/L	20	6/22/2017 3:04:53 PM	32391
Sodium	37000	1000		mg/L	1E	6/22/2017 8:15:36 PM	32391
Strontium	ND	0.20		mg/L	20	6/22/2017 3:04:53 PM	32391

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 Quanitative 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