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

September 30, 2020

#5E29133-BG50

NMOCD District 1
1625 N. French Dr.
Hobbs, New Mexico 88240

SUBJECT: Remediation Closure Report for the Maljamar 15 Federal #001 Release (NSAP0222728514), Maljamar, Lea County, New Mexico

To Whom it may Concern:

On behalf of Devon Energy Production Company, 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 Maljamar 15 Federal #001 site. The site is in Unit G, Section 15, Township 17S, Range 32E, Lea County, New Mexico, on Federal 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	Maljamar 15 Federal #001	Company	Devon Energy Production Company
API Number	30-025-34549	Location	32.8382263, -103.7500076
Tracking Number	NSAP0222728514		
Estimated Date of Release	8/11/2002	Date Reported to NMOCD	8/12/2002
Land Owner	Federal	Reported To	NMOCD, BLM
Source of Release	Hole located on glass portion of heater treater, caused by corrosion.		
Released Volume	25 BBLS 15 BBLS	Released Material	Produced Water Crude Oil
Recovered Volume	0 BBLS 0 BBLS	Net Release	25 BBLS 15 BBLS
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	7/23/2020, 9/8/2020		

1.0 Background

On August 11, 2002, a release was discovered at the Maljamar 15 Federal #001 site due to a hole developing at the base of a heater-treater. Initial response activities were conducted by Devon personnel, and included source elimination and site containment activities. Figure 1 illustrates the vicinity and site location; Figure 2 illustrates the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Maljamar 15 Federal #001 is an active production facility located approximately 1.5 miles southeast of Maljamar, New Mexico on Federal (BLM) land at an elevation of approximately 4074 feet above mean sea level (amsl).

Depth to Groundwater
Based upon the OSE well database, the depth to groundwater is unknown due to a lack of available information on wells within the vicinity of Maljamar 15 Federal #001.

Wellhead Protection Area
There are no known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database.

Distance to Nearest Significant Watercourse
The nearest significant watercourse is an unnamed spring, located approximately 3423 feet to the northwest.

Table 2 demonstrates the Closure Criteria applicable to this location. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on a lack of supportable groundwater data, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of less than 50 feet bgs.

3.0 Release Characterization and Remediation Activities

On July 23, 2020, SMA personnel performed site delineation activities at the Maljamar 15 Federal #001 site. SMA performed site delineation activities by collecting soil samples around the release site, based on figures provided by Devon personnel. Soil samples were field-screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp.

A total of ten sample locations (L1-L10) were investigated using a hand-auger from surface level to depths of 2-feet bgs. A minimum of one sample was collected at each sampling location and field-screened using the methods above. A total of eighteen 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.

On September 8, 2020, SMA returned to the site to guide the excavation of contaminated soil. SMA guided the excavation activities by collecting soil samples for field screening. Samples were screened for chloride using an electrical conductivity (EC) meter and/or for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp and/or for hydrocarbon

impacts using a Dexsil® PetroFLAG TPH Analyzer. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be met. NMOCD was notified on September 3, 2020 that closure samples were expected to be collected in two (2) business days.

Based on initial sample results, two areas were excavated. Excavation area one, represented by initial sample locations L1 and L2, measured 35 feet by 10 feet by 1-foot. Upon completion, confirmation samples were collected from the base (CS1, CS2) and the sidewalls (SW1 - SW4) of the excavation. Excavation area two, represented by initial sample locations L5 and L6, measured 20 feet by 10 feet by 1- foot. Upon completion, confirmation samples were collected from the base (CS3) and the sidewalls (SW5 - SW8) of the excavation.

A total of eleven confirmation 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 3 shows the extent of the final excavation and all sample locations. All laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

4.0 Site Recommendations

As demonstrated in Table 3, all closure samples meet the Closure Criteria. The site has been remediated to meet the standards of Table I of 19.15.29.12 NMAC. Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at R360 Environmental Solutions Landfill, Lea County, NM, an NMOCD-permitted disposal facility.

SMA recommends no further action and requests closure of Incident Number NSAP0222728514.

5.0 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 Ashley Maxwell at 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Reviewed by:

Ashley Maxwell
Project Manager

Shawna Chubbuck
Senior Scientist

REFERENCES:

- New Mexico Office of the State Engineer (NMOSE) online water well database https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 9/30/2020

ATTACHMENTS:

Figures:

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

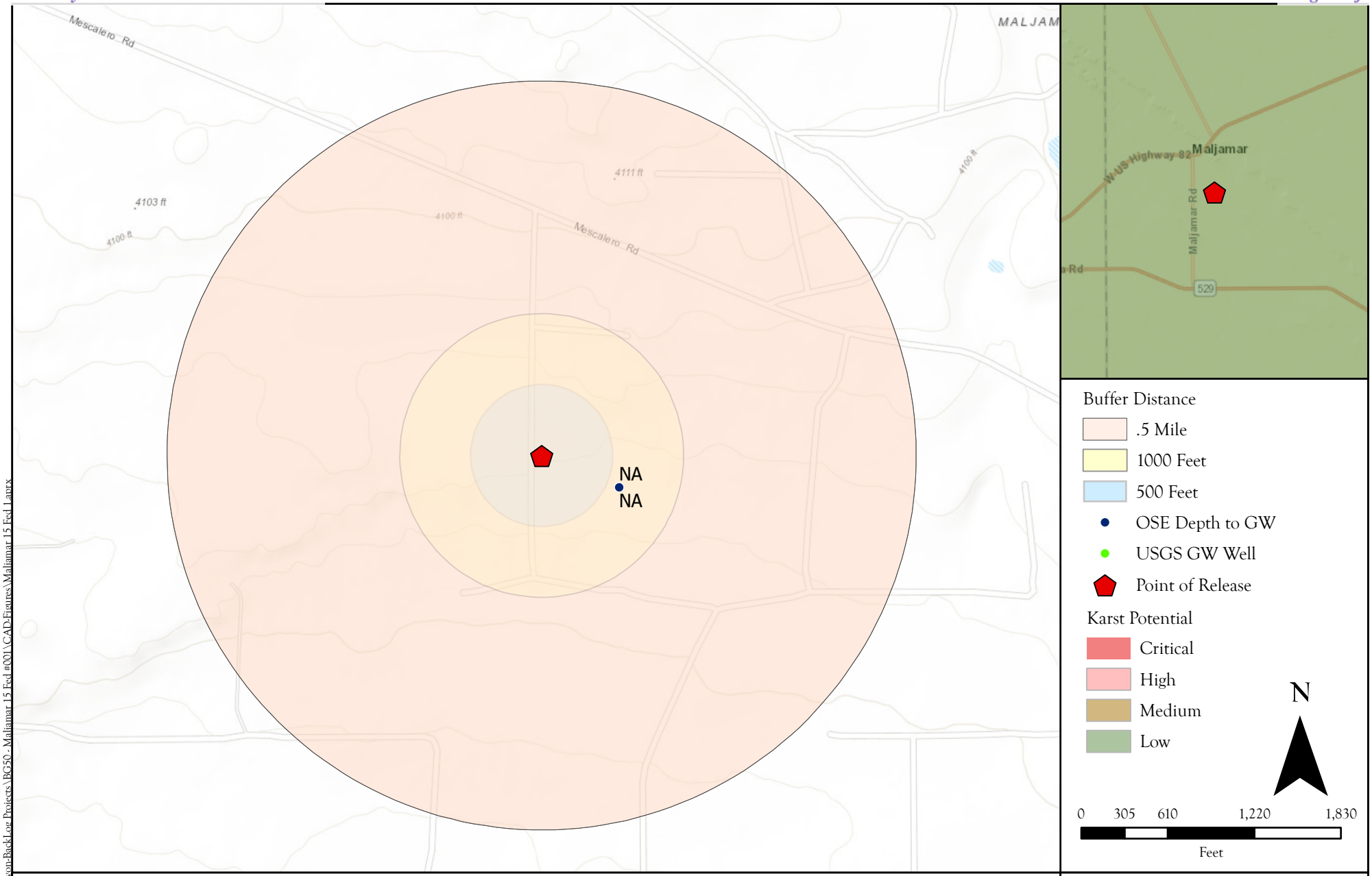
Tables:

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

Appendices:

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

FIGURES



Site Map
Maljamar 15 Federal #001 - Devon Energy
32.8382263, -103.7500076, Lea County, New Mexico

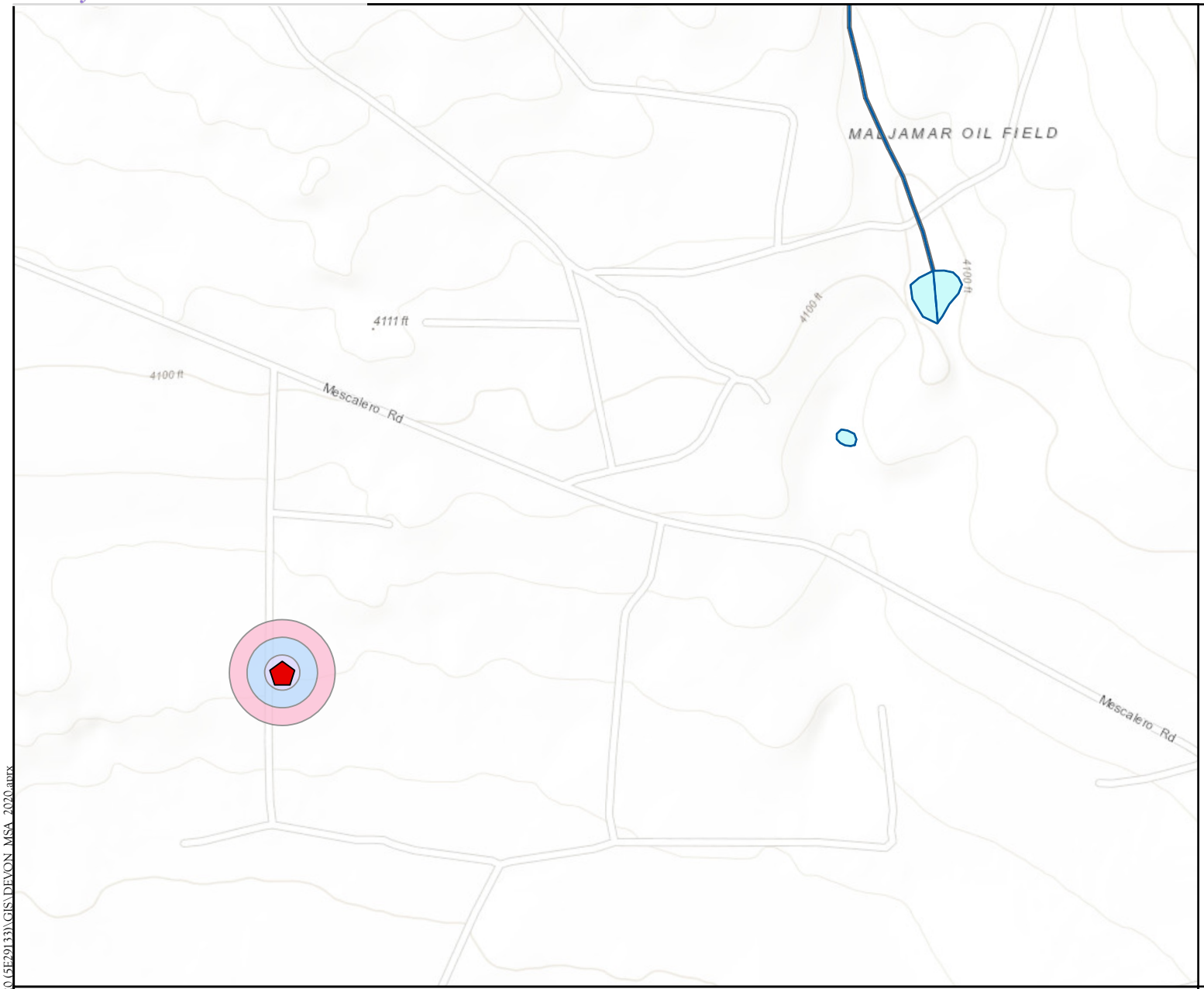
Figure 1

P:\5-Devon MSA 2020 (5E29133)\Devon-Backlog Projects\BG50 - Maljamar 15 Fed #001\CAD-Figures\Maljamar 15 Fed 1.aprx
Date Saved: 9/30/2020

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

Drawn Lynn A. Acosta
Date 9/30/2020
Checked
Approved

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



Legend:

Buffer Distance
- 300 Feet
- 200 Feet
- 100 Feet
- Springs & Seeps
- Streams & Canals
- Rivers
- Flowlines SENM
- NM Wetlands
- Lakes & Playas
- FEMA Flood Zones 2011
- Point of Release

N

0 275 550 1,100 1,650
Feet

Surface Water Protection Map
Maljamar 15 Federal #001- Devon Energy
32.8382263, -103.7500076, Lea County, New Mexico

Figure 2

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

Drawn P.R. Smith
Date 9/30/2020
Checked
Approved

201 South Halaguena Street
Carlsbad, New Mexico 88221
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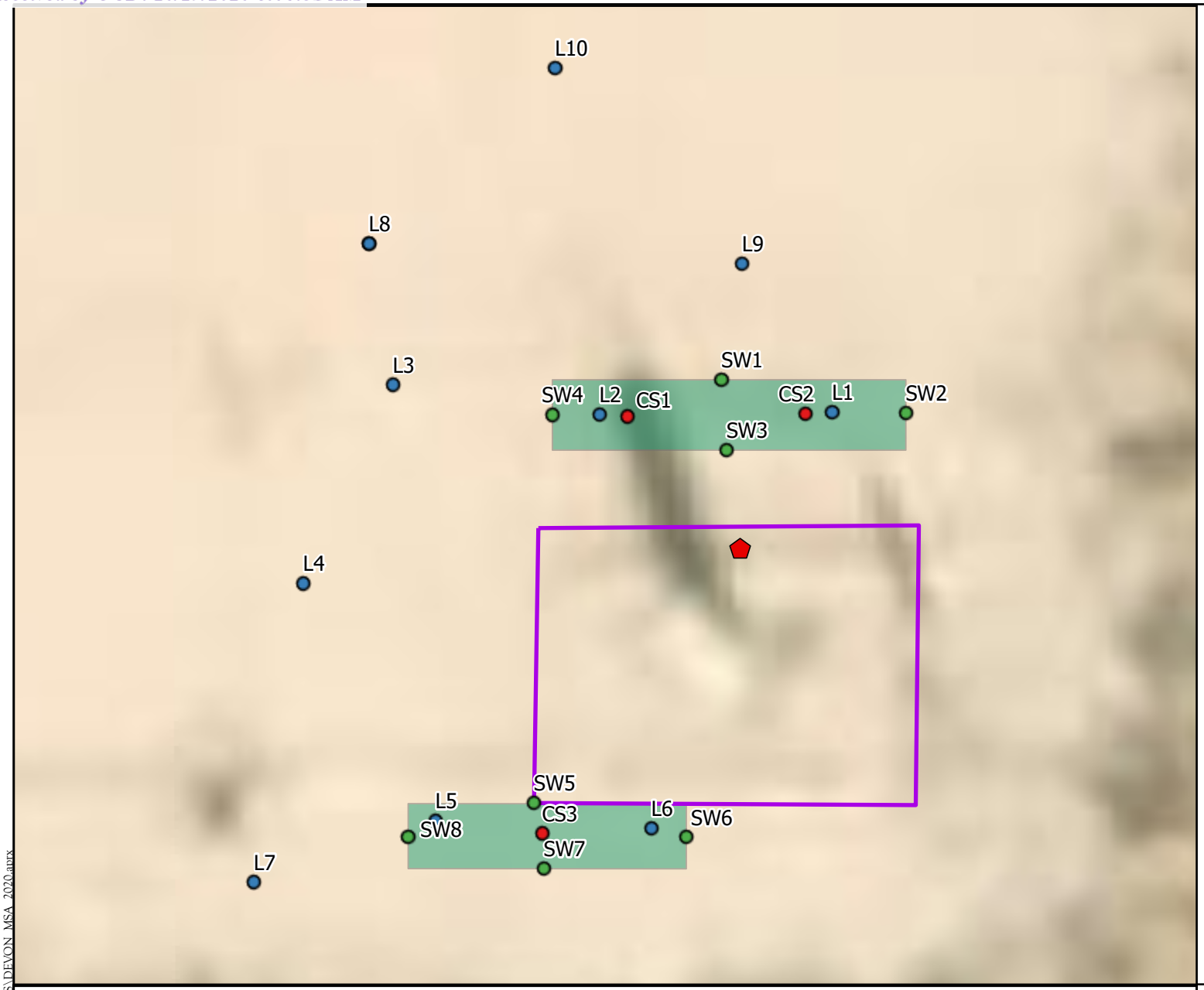
Date Saved: 9/30/2020
\\CRO10\Projects\5-Devon MSA 2020 (5E29133)\GIS\DEVON_MSA_2020.mxd



Legend:

- Berm
- 1-Foot Excavation

Sample Points

- Closure Sample
- Side Wall Samples
- Initial Soil Sample
- Point of Release

N

0 5 10 20 30

Feet

Site and Sample Location Map
Maljamar 15 Federal #001- Devon Energy
32.8382263, -103.7500076, Lea County, New Mexico

Figure 3

P:\5-Devon MSA 2020 (5E29133)\GIS\DEVON_MSA_2020.aprx
Date Saved: 9/30/2020

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

Drawn P.R. Smith
Date 9/30/2020
Checked
Approved

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TABLES

Table 2:
NMOCD Closure Criteria

Devon Energy
Maljamar 15 Federal #001

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	N/A	New Mexico Office of the State Engineer
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	N/A	United States Geological Survey Topo Map
Hortizontal Distance to Nearest Significant Watercourse (ft)	3423.82	Unnamed Spring to the Northeast

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

SMA #

Table 3:
Sample Results

Devon Energy Production Company
Maljamar 15 Fed 1

Sample ID	Sample Date	Depth of Sample (feet bgs)	Action Taken	Method 8021B		Method 8015D				Method 300.0
				BTEX	Benzene	GRO	DRO	MRO	Total TPH	Cl-
				mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Reclamation Requirement (0-4 ft)				50	10	--	--	--	100	600
NMOCD Closure Criteria (>4 ft)				50	10					
L1	7/23/2020	Surface	Excavate	<0.215	<0.024	<4.8	11	110	121	<60
		1	In-Situ	<0.225	<0.025	<5.0	<9.0	<45	<59	<60
L2		Surface	Excavate	<0.213	<0.024	<4.7	530	1400	1930	<60
		1	Excavate	<0.219	<0.024	<4.9	110	240	350	<60
L3		Surface	In-Situ	<0.219	<0.024	<4.9	<9.9	69	69	<60
		1	In-Situ	<0.212	<0.024	<4.7	<9.4	<47	<61.1	<60
L4		Surface	In-Situ	<0.213	<0.024	<4.7	<9.5	<48	<62.2	<60
		1	In-Situ	<0.213	<0.024	<4.7	<9.5	<48	<62.2	<60
L5		Surface	Excavate	<0.207	<0.023	<4.6	11000	8500	19500	<60
		1	Excavate	<0.207	<0.023	<4.6	1500	2500	4000	<60
		2	In-Situ	<0.217	<0.024	<4.8	22	<48	22	<60
L6		Surface	Excavate	<0.217	<0.024	<4.8	<9.9	100	100	<60
		1	In-Situ	<0.215	<0.024	<4.8	<9.7	<48	<62.5	<60
L7		Surface	In-Situ	<0.213	<0.024	<4.7	<9.3	<47	<61	<60
		1	In-Situ	<0.224	<0.025	<5.0	<9.6	<48	<62.6	<60
L8		Surface	In-Situ	<0.224	<0.025	<5.0	<8.9	<45	<58.9	<60
L9		Surface	In-Situ	<0.221	<0.025	<4.9	<8.8	<44	<57.7	61
L10		Surface	In-Situ	<0.212	<0.024	<4.7	<8.9	<44	<57.6	200
Confirmation Samples										
CS1	9/8/2020	1	Excavated	<0.224	<0.025	<5.0	<9.4	<47	<61.4	<60
CS2				<0.220	<0.025	<4.9	<9.8	<49	<63.7	<60
CS3				<0.224	<0.025	<5.0	<9.6	<48	<62.6	<60
SW1		0 - 1		<0.225	<0.025	<5.0	<9.7	<49	<63.7	<60
SW2				<0.219	<0.024	<4.9	<9.5	<47	<61.4	<60
SW3				<0.225	<0.025	<5.0	<9.7	<49	<63.7	<60
SW4				<0.220	<0.024	<4.9	<9.6	<48	<62.5	<60
SW5				<0.225	<0.025	<5.0	<9.1	<46	<60.1	<60
SW6				<0.224	<0.024	<5.0	<9.6	<48	<62.6	<60
SW7				<0.224	<0.025	<5.0	<9.6	<48	<62.6	<60
SW8				<0.224	<0.025	<5.0	<8.6	<43	<56.6	<59

"--" = Not Analyzed
BG: Background sample

SMA #

APPENDIX A
FORM C141

OCD Permitting

Home > Searches > Incidents > Incident Details

NSAP0222728514 2002 MAJOR A SWS @ 30-025-34549

General Incident Information

Site Name:
Well: [30-025-34549] MALJAMAR 15 FEDERAL #001
Facility:
Operator: [106015] DEVON ENERGY PRODUCTION CO.
Status: Closure Not Approved
Type: Produced Water Release
District: Hobbs
Severity: Major
Surface Owner:
County: Lea (25)

Incident Location: A-15-17S-32E 1310 FNL 1310 FEL
Lat/Long: 32.8382263,-103.7500076 NAD83
Directions:

Notes

Source of Referral: Industry Rep
Action / Escalation:

Resulted In Fire:
Will or Has Reached Watercourse:
Endangered Public Health:
Property Or Environmental Damage:

Contact Details

Contact Name:
Contact Title:

Event Dates

Date of Discovery: 08/11/2002
Extension Date: 11/15/2018
OCD Notified of Major Release: 08/12/2002
Cancelled Date:

Initial C-141 Received:
Characterization Report Received: 08/11/2002
Remediation Plan Received:
Closure Report Received:
Characterization Report Approved:
Remediation Plan Approved:
Remediation Due:
Closure Report Approved:

Incidents Materials

Cause	Source	Material	Volume				Units
			Unk.	Spilled	Recovered	Lost	
		Produced Water		25	0	25	BBL
		Crude Oil		15	0	15	BBL

Incident Events

Date	Detail
08/15/2002	HOLE IN LOWER SIDE GLASS ON HEATER TREATER, CAUSED BY CORROSION. REPLACED WITH STAINLESS STEEL NIPPLE. WILL LEAVE AFFECTED AREA AIRING FOR A COUPLE OF DAYS, THEN TILL AND FERTILIZE

Orders

No Orders Found

Incident ID	NSAP0222728514
District RP	
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?	N/A (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.

Form C-141 State of New Mexico
Page 4 Oil Conservation Division

Incident ID	NSAP0222728514
District RP	
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: Tom Bynum Title: EHS Consultant

Signature: Tom Bynum Date: 10/7/2020

email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NSAP0222728514
District RP	
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: Tom Bynum Title: EHS Consultant

Signature: Tom Bynum Date: 10/7/2020

email: tom.bynum@dvn.com Telephone: 575-748-2663

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: Brittany Hall Date: 01/13/2023

Printed Name: Brittany Hall Title: Environmental Specialist

APPENDIX B
NMOSE WELLS REPORT

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 616985.53 **Northing (Y):** 3634044.95 **Radius:** 805

8/25/20 2:50 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

File No. RA-11828

NEW MEXICO OFFICE OF THE STATE ENGINEER

APPLICATION FOR PERMIT TO DRILL A WELL WITH NO CONSUMPTIVE USE OF WATER

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/ 2-31505 $10=

Purpose:	☐ Pollution Control And / Or Recovery	☐ Geo-Thermal
☒ Exploratory	☐ Construction Site De-Watering	☐ Other (Describe):
☒ Monitoring	☐ Mineral De-Watering	

A separate permit will be required to apply water to beneficial use.

☐ Temporary Request - Requested Start Date: Requested End Date:

Plugging Plan of Operations Submitted? ☐ Yes ☐ No

1. APPLICANT(S)

Name: **LINN Energy**	Name:
Contact or Agent: **Daniel Frick** check here if Agent ☐	Contact or Agent: check here if Agent ☐
Mailing Address: **600 Travis, Suite 5100**	Mailing Address:
City: **Houston**	City:
State: **TX** Zip Code: **77002**	State: Zip Code:
Phone: **(281)840-4267** ☐ Home ☒ Cell Phone (Work): **(713)703-0240**	Phone: ☐ Home ☐ Cell Phone (Work):
E-mail (optional): **dfrick@linnenergy.com**	E-mail (optional):

STATE ENGINEER OFFICE ROSWELL, NEW MEXICO 2012 MAY 25 A 10: 54

FOR OSE INTERNAL USE — Application for Permit, Form wr-07, Rev 4/12/12

File Number: RA-11828	Trn Number: 504674
Trans Description (optional): SOIL BORING / MONITOR WELL	
Sub-Basin:	
~~PCW~~/LOG Due Date: May 31, 2013	

2. **WELL(S)** Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

☒ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range)* OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
SB-1	-103 44' 53.201"	32 50' 14.154"	
MW-1	-103 44' 53.201"	32 50' 14.154"	

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ Yes ☐ No **If yes, how many**_____

Other description relating well to common landmarks, streets, or other:

Well is on land owned by: **Bureau Of Land Management**

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☐ Yes ☒ No
If yes, how many_____

Approximate depth of well (feet): **60.00**	Outside diameter of well casing (inches): **4.00**
Driller Name: **Straub Corporation**	Driller License Number: **WD1478**

3. **ADDITIONAL STATEMENTS OR EXPLANATIONS**

This application is for the completion of a soil boring and possibly a monitor well in the same locaiton depending on what is foiund in the soil boring. The delineation is part of a soil contamination investigation involving the Bureau of Land Management and the New Mexico Oil Conservation Division.

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2012 MAY 25 A 8:51

FOR OSE INTERNAL USE

Application for Permit Form wr-07

File Number: RA-11828	Trn Number: 504674

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: ☒ Include a description of any proposed pump test, if applicable.	**Pollution Control and/or Recovery:** ☒ Include a plan for pollution control/recovery, that includes the following: ☒ A description of the need for the pollution control or recovery operation. ☒ The estimated maximum period of time for completion of the operation. ☒ The annual diversion amount. ☒ The annual consumptive use amount. ☒ The maximum amount of water to be diverted and injected for the duration of the operation. ☒ The method and place of discharge. ☒ The method of measurement of water produced and discharged. ☒ The source of water to be injected. ☐ The method of measurement of water injected. ☒ The characteristics of the aquifer. ☒ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☒ Proof of any permit required from the New Mexico Environment Department. ☒ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Construction De-Watering:** ☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	**Mine De-Watering:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ☒ Include the reason for the monitoring well, and, ☒ The duration of the planned monitoring.		**Geo-Thermal:** ☐ Include a description of the geothermal heat exchange project, ☐ The amount of water to be diverted and re-injected for the project, ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), **Shane Estep**
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 25th day of May 20 12, for the State Engineer,

Scott A. Verhines, P.E., State Engineer

By: Melinda Spivey
Signature

Melinda Spivey
Print

Title: Water Resource Technician
Print

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2012 MAY 25 A 10: 54

FOR OSE INTERNAL USE

Application for Permit, Form wr-07

File Number: RA-11828	Trn Number: 504674

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

1A Depth of the well shall not exceed the thickness of the valley fill.

4 No water shall be appropriated and beneficially used under this permit.

B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.

C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

C2 No water shall be diverted from this well except for testing purposes which shall not exceed twenty (20) cumulative days, and well shall be plugged or capped on or before , unless a permit to use water from this well is acquired from the Office of the State Engineer.

LOG The Point of Diversion RA 11828 POD1 must be completed and the Well Log filed on or before 05/31/2013.

LOG The Point of Diversion RA 11828 POD2 must be completed and the Well Log filed on or before 05/31/2013.

The well shall be constructed, maintained, and operated in a manner that all water encountered shall be confined to the aquifer in which it is encountered.

Trn Desc: SOIL BORING/MONITOR WELL

File Number: RA 11828
Trn Number: 504674

Sc

By:

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:
Formal Application Rcvd: 05/25/2012 Pub. of Notice Ordered:
Date Returned - Correction: Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 25 day of May A.D., 2012

Scott A. Verhines, P.E., State Engineer

By: Melinda Spivey

Trn Desc: SOIL BORING/MONITOR WELL File Number: RA 11828
Trn Number: 504674

Scott A. Verhines, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 504674
File Nbr: RA 11828

May. 25, 2012

SHANE ESTEP
ETECH ENVIRONMENTAL AND SAFETY SOLUTIONS, INC.
PO BOX 8469
MIDLAND, TX 79708-8469

Greetings:

Enclosed is your copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page. In accordance with the conditions of approval, the well can only be tested for 10 cumulative days, and the well is to be plugged on or before 05/31/2013, unless a permit to use the water is acquired from this office.

A Well Record & Log (OSE Form wr-20) shall be filed in this office within twenty (20) days after completion of drilling, but no later than 05/31/2013.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us or will be mailed upon request.

Sincerely,

Melinda Spivey
(575)622-6521

Enclosure

explore

Shane Estep

From: Fred Holmes [fred@etechenv.com]
Sent: Thursday, May 24, 2012 8:54 AM
To: 'Shane Estep'
Subject: FW: Etech-LINN Energy - MGU 77 Permission to perform soil borings

Shane:

Please see below the authorization sent for the soil boring at the MGU 77 site. Particulars on the site are included in the email. BLM wanted to use email for approval stating that their acknowledgment digitally does give their signed approval to perform this task.

Thanks

Fred Holmes
Etech Environmental & Safety Solutions, Inc.
P.O. Box 8469
Midland, Texas 79708-8469
Phone: 432-563-2200
Fax: 432-563-2213
E-mail: fred@etechenv.com

From: Amos, James A [mailto:jamos@blm.gov]
Sent: Wednesday, May 16, 2012 8:49 AM
To: fred@etechenv.com
Subject: FW: Etech-LINN Energy - MGU 77 Permission to perform soil borings

Try again, thanks

From: Amos, James A
Sent: Tuesday, May 15, 2012 7:18 AM
To: 'Fred Holmes'
Cc: Bad Bear, Trishia C; 'Leking, Geoffrey R, EMNRD'; 'Daniel Frick'
Subject: RE: Etech-LINN Energy - MGU 77 Permission to perform soil borings

Fred,

The BLM is authorizing you to take appropriate action to be able to delineate the site. This is to include the use of a rig to conduct soil borings as needed. If any major surface disturbing activities are to be involved, get back to me. I would like to be copied on any plans etc. that are currently in place. Provide prior notification of activities for witnessing. If any questions, please get back to me. Thanks

J. Amos

SEPS, CFO

From: Fred Holmes [mailto:fred@etechenv.com]
Sent: Monday, May 14, 2012 1:45 PM
To: Amos, James A
Cc: Bad Bear, Trishia C; 'Leking, Geoffrey R, EMNRD'; 'Daniel Frick'
Subject: Etech-LINN Energy - MGU 77 Permission to perform soil borings
Importance: High

Jim:

Following our conversation on this date, this is to confirm that Etech Environmental & Safety Solutions, Inc. (Etech) is seeking permission on behalf of LINN Energy to perform subsurface delineation of impacted soils at the Maljamar Grayburg Unit, Well Number 77 located in Lea County, NM. Particulars on the location are as follows:

LINN Energy, Maljamar Grayburg Unit No. 77
API No.: 30-025-50062
Legal: H-15-17S-32E, 2310 FNL & 660 FEL
GPS: N32° 50' 14.154, W103° 44' 53.201"

The delineation will include soil (borings) in an area where excavation has reached the vertical limits and hydrocarbon levels are still above OCD regulatory threshold levels. In accordance with OCD stipulations for the site, a liner will be installed in the bottom of the excavation, then backfilled to allow the access by a drilling rig. The delineation will include the completion of soil boring(s) to determine the vertical extent of the impact and may include (but at this time is not foreseen), the installation of monitors well(s). As the Bureau of Land Management (BLM) is the surface land owner, permission must be obtained from the landowner per the New Mexico State Engineers Office before these activities can commence.

Thank you for your assistance on this matter. I will look forward to your response.

Respectfully,

Fred Holmes
Etech Environmental & Safety Solutions, Inc.
P.O. Box 8469
Midland, Texas 79708-8469
Phone: 432-563-2200
Fax: 432-563-2213
E-mail: fred@etechenv.com

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2012 MAY 25 A 10: 51

Locator Tool Report

General Information:

Application ID:30 Date: 05-25-2012 Time: 17:18:39

WR File Number: RA
Purpose: POINT OF DIVERSION

Applicant First Name: LINN
Applicant Last Name: ENERGY

GW Basin: ROSWELL ARTESIAN
County: LEA

Critical Management Area Name(s): NONE
Special Condition Area Name(s): NONE
Land Grant Name: NON GRANT

PLSS Description (New Mexico Principal Meridian):

SE 1/4 of NW 1/4 of SE 1/4 of NE 1/4 of Section 15, Township 17S, Range 32E.

Coordinate System Details:

Geographic Coordinates:

Latitude:	32 Degrees	50 Minutes	14.2 Seconds	N
Longitude:	103 Degrees	44 Minutes	53.2 Seconds	W

Universal Transverse Mercator Zone: 13N

NAD 1983(92) (Meters)	N: 3,633,941	E: 617,164
NAD 1983(92) (Survey Feet)	N: 11,922,353	E: 2,024,813
NAD 1927 (Meters)	N: 3,633,737	E: 617,214
NAD 1927 (Survey Feet)	N: 11,921,686	E: 2,024,977

State Plane Coordinate System Zone: New Mexico East

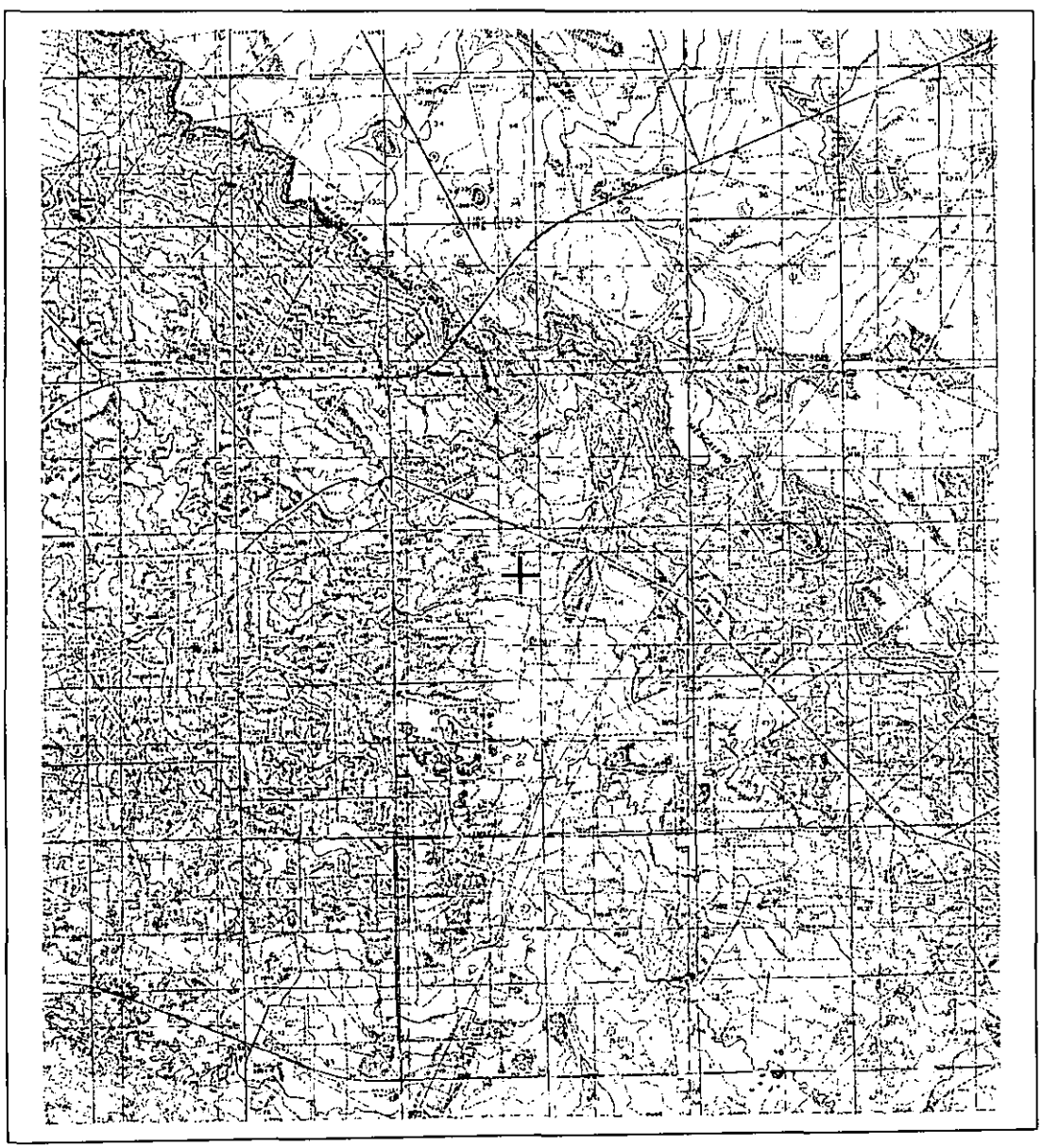
NAD 1983(92) (Meters)	N: 203,859	E: 219,786
NAD 1983(92) (Survey Feet)	N: 668,828	E: 721,083
NAD 1927 (Meters)	N: 203,839	E: 207,235
NAD 1927 (Survey Feet)	N: 668,763	E: 679,905

RA-11828 POD 1 + POD 2
504674

Print Date: 05/25/2012

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report



WR File Number: RA Scale: 1:75,665

Northing/Easting: UTM83(92) (Meter): N: 3,633,941 E: 617,164

Northing/Easting: SPCS83(92) (Feet): N: 668,828 E: 721,083

GW Basin: Roswell Artesian

Print Date: 05/25/2012

RA-11828 POD 1 + POD 2

504674

APPENDIX C
SAMPLING PROTOCOL

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

Sampling Protocol

Representatives from SMA chose the Judgmental Sampling Method as described in EPA's Final Sampling Guidance for SW-846, 2002 to adequately quantify contaminant concentrations on Cotton Draw Unit #294H Location. The utility of this particular method functions on the sufficient knowledge of the contaminant, which we possess. This design is also useful when identifying the composition of a release, which we have documented. In addition, this sampling design was chosen for this project because of the locations uniform soil type, and the several operational considerations (such as the liner within the battery and the construction of a new facility) that precluded the implementation of a different statistical design.

The soil samples were collected in laboratory supplied containers in accordance with this sampling protocol, immediately placed on ice and sent under standard chain-of-custody protocols to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for analysis. A total of eight (8) 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.

Sampling Analysis Field Quality Assurance Procedures

A unique sample numbering was used to identify each sample collected and designated for on-site and off-site laboratory analysis. The purpose of this numbering scheme was to provide a tracking system for the retrieval of analytical and field data on each sample. Sample identification numbers were recorded on sample labels or tags, field notes, chain-of-custody records (COC) and all other applicable documentation used during the project. Sample labels were affixed to all sample containers during sampling activities. Information was recorded on each sample container label at the time of sample collection. The information recorded on the labels were as follows: sample identification number; sample type (discrete or composite); site name and area/location number; analysis to be performed; type of chemical preservative present in container; date and time of sample collection; and sample collector's name and initials. All samples were packed in ice in an approved rigid body container, custody sealed signed and shipped to the appropriate laboratory via insured currier service.

COC procedures implemented for the project provided documentation of the handling of each sample from the time of collection until completion of laboratory analysis. A COC form serves as a legal record of possession of the sample. A sample is considered to be under custody if one or more of the following criteria are met: the sample is in the sampler's possession; the sample is in the sampler's view after being in possession; the sample was in the sampler's possession and then was placed into a locked area to prevent tampering; and/or the sample is in a designated secure area. Custody was documented throughout the project field sampling activities by a chain-of custody form initiated each day during which samples are collected. Container custody seals placed on either individual samples or on the rigid body container were used to ensure that no sample tampering occurs between the time the samples are placed into the containers and the time the containers are opened for analysis at the laboratory. Container custody seals were signed and dated by the individual responsible for completing the COC form contained within the container.

APPENDIX D

LABORATORY ANALYTICAL REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

August 05, 2020

Ashley Maxwell

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

RE: Mal jamar 15 Fed 1 OrderNo.: 2007E97

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 18 sample(s) on 7/30/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-Surface
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:00:00 AM
Lab ID: 2007E97-001 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	8/3/2020 7:20:00 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	11	9.2		mg/Kg	1	8/4/2020 8:52:57 AM	54086
Motor Oil Range Organics (MRO)	110	46		mg/Kg	1	8/4/2020 8:52:57 AM	54086
Surr: DNOP	117	30.4-154		%Rec	1	8/4/2020 8:52:57 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/2/2020 5:54:27 PM	54080
Surr: BFB	100	75.3-105		%Rec	1	8/2/2020 5:54:27 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/2/2020 5:54:27 PM	54080
Toluene	ND	0.048		mg/Kg	1	8/2/2020 5:54:27 PM	54080
Ethylbenzene	ND	0.048		mg/Kg	1	8/2/2020 5:54:27 PM	54080
Xylenes, Total	ND	0.095		mg/Kg	1	8/2/2020 5:54:27 PM	54080
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	8/2/2020 5:54:27 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-1'
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:05:00 AM
Lab ID: 2007E97-002 **Matrix:** SOIL **Received Date:** 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	8/3/2020 7:32:25 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	8/1/2020 5:17:41 AM	54086
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	8/1/2020 5:17:41 AM	54086
Surr: DNOP	96.7	30.4-154		%Rec	1	8/1/2020 5:17:41 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/2/2020 6:17:57 PM	54080
Surr: BFB	98.8	75.3-105		%Rec	1	8/2/2020 6:17:57 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	8/2/2020 6:17:57 PM	54080
Toluene	ND	0.050		mg/Kg	1	8/2/2020 6:17:57 PM	54080
Ethylbenzene	ND	0.050		mg/Kg	1	8/2/2020 6:17:57 PM	54080
Xylenes, Total	ND	0.10		mg/Kg	1	8/2/2020 6:17:57 PM	54080
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	8/2/2020 6:17:57 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-Surface
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:08:00 AM
Lab ID: 2007E97-003 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	8/3/2020 7:44:50 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	530	93		mg/Kg	10	8/4/2020 10:50:05 AM	54086
Motor Oil Range Organics (MRO)	1400	460		mg/Kg	10	8/4/2020 10:50:05 AM	54086
Surr: DNOP	0	30.4-154	S	%Rec	10	8/4/2020 10:50:05 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/2/2020 7:28:21 PM	54080
Surr: BFB	98.9	75.3-105		%Rec	1	8/2/2020 7:28:21 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/2/2020 7:28:21 PM	54080
Toluene	ND	0.047		mg/Kg	1	8/2/2020 7:28:21 PM	54080
Ethylbenzene	ND	0.047		mg/Kg	1	8/2/2020 7:28:21 PM	54080
Xylenes, Total	ND	0.095		mg/Kg	1	8/2/2020 7:28:21 PM	54080
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	8/2/2020 7:28:21 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-1'
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:10:00 AM
Lab ID: 2007E97-004 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	8/3/2020 7:57:14 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	110	9.3		mg/Kg	1	8/4/2020 11:09:16 AM	54086
Motor Oil Range Organics (MRO)	240	47		mg/Kg	1	8/4/2020 11:09:16 AM	54086
Surr: DNOP	114	30.4-154		%Rec	1	8/4/2020 11:09:16 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/2/2020 7:51:43 PM	54080
Surr: BFB	99.8	75.3-105		%Rec	1	8/2/2020 7:51:43 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/2/2020 7:51:43 PM	54080
Toluene	ND	0.049		mg/Kg	1	8/2/2020 7:51:43 PM	54080
Ethylbenzene	ND	0.049		mg/Kg	1	8/2/2020 7:51:43 PM	54080
Xylenes, Total	ND	0.097		mg/Kg	1	8/2/2020 7:51:43 PM	54080
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	8/2/2020 7:51:43 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-Surface
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:15:00 AM
Lab ID: 2007E97-005 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	8/3/2020 8:09:39 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/4/2020 11:28:28 AM	54086
Motor Oil Range Organics (MRO)	69	50		mg/Kg	1	8/4/2020 11:28:28 AM	54086
Surr: DNOP	103	30.4-154		%Rec	1	8/4/2020 11:28:28 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/2/2020 8:15:05 PM	54080
Surr: BFB	98.5	75.3-105		%Rec	1	8/2/2020 8:15:05 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/2/2020 8:15:05 PM	54080
Toluene	ND	0.049		mg/Kg	1	8/2/2020 8:15:05 PM	54080
Ethylbenzene	ND	0.049		mg/Kg	1	8/2/2020 8:15:05 PM	54080
Xylenes, Total	ND	0.097		mg/Kg	1	8/2/2020 8:15:05 PM	54080
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/2/2020 8:15:05 PM	54080

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 Limit

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-1'
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:20:00 AM
Lab ID: 2007E97-006 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	8/3/2020 8:22:03 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	8/1/2020 6:54:22 AM	54086
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/1/2020 6:54:22 AM	54086
Surr: DNOP	95.6	30.4-154		%Rec	1	8/1/2020 6:54:22 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/2/2020 8:38:33 PM	54080
Surr: BFB	101	75.3-105		%Rec	1	8/2/2020 8:38:33 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	8/2/2020 8:38:33 PM	54080
Toluene	ND	0.047		mg/Kg	1	8/2/2020 8:38:33 PM	54080
Ethylbenzene	ND	0.047		mg/Kg	1	8/2/2020 8:38:33 PM	54080
Xylenes, Total	ND	0.094		mg/Kg	1	8/2/2020 8:38:33 PM	54080
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	8/2/2020 8:38:33 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-Surface
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:25:00 AM
Lab ID: 2007E97-007 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	8/3/2020 8:34:28 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/4/2020 9:31:02 AM	54086
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/4/2020 9:31:02 AM	54086
Surr: DNOP	116	30.4-154		%Rec	1	8/4/2020 9:31:02 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/2/2020 9:02:06 PM	54080
Surr: BFB	99.7	75.3-105		%Rec	1	8/2/2020 9:02:06 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/2/2020 9:02:06 PM	54080
Toluene	ND	0.047		mg/Kg	1	8/2/2020 9:02:06 PM	54080
Ethylbenzene	ND	0.047		mg/Kg	1	8/2/2020 9:02:06 PM	54080
Xylenes, Total	ND	0.095		mg/Kg	1	8/2/2020 9:02:06 PM	54080
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/2/2020 9:02:06 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-1'
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:35:00 AM
Lab ID: 2007E97-008 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	8/3/2020 8:46:53 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/1/2020 7:42:45 AM	54086
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/1/2020 7:42:45 AM	54086
Surr: DNOP	82.8	30.4-154		%Rec	1	8/1/2020 7:42:45 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/2/2020 9:25:31 PM	54080
Surr: BFB	100	75.3-105		%Rec	1	8/2/2020 9:25:31 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	8/2/2020 9:25:31 PM	54080
Toluene	ND	0.047		mg/Kg	1	8/2/2020 9:25:31 PM	54080
Ethylbenzene	ND	0.047		mg/Kg	1	8/2/2020 9:25:31 PM	54080
Xylenes, Total	ND	0.095		mg/Kg	1	8/2/2020 9:25:31 PM	54080
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	8/2/2020 9:25:31 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-Surface
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:40:00 AM
Lab ID: 2007E97-009 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	8/3/2020 9:24:06 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	11000	970		mg/Kg	100	8/1/2020 8:06:57 AM	54086
Motor Oil Range Organics (MRO)	8500	4900		mg/Kg	100	8/1/2020 8:06:57 AM	54086
Surr: DNOP	0	30.4-154	S	%Rec	100	8/1/2020 8:06:57 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/2/2020 9:48:51 PM	54080
Surr: BFB	95.3	75.3-105		%Rec	1	8/2/2020 9:48:51 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023		mg/Kg	1	8/2/2020 9:48:51 PM	54080
Toluene	ND	0.046		mg/Kg	1	8/2/2020 9:48:51 PM	54080
Ethylbenzene	ND	0.046		mg/Kg	1	8/2/2020 9:48:51 PM	54080
Xylenes, Total	ND	0.092		mg/Kg	1	8/2/2020 9:48:51 PM	54080
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	8/2/2020 9:48:51 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-1'
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:48:00 AM
Lab ID: 2007E97-010 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	8/3/2020 9:36:31 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	1500	190		mg/Kg	20	8/4/2020 9:40:35 AM	54086
Motor Oil Range Organics (MRO)	2500	940		mg/Kg	20	8/4/2020 9:40:35 AM	54086
Surr: DNOP	0	30.4-154	S	%Rec	20	8/4/2020 9:40:35 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/2/2020 10:12:15 PM	54080
Surr: BFB	96.2	75.3-105		%Rec	1	8/2/2020 10:12:15 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	8/2/2020 10:12:15 PM	54080
Toluene	ND	0.046		mg/Kg	1	8/2/2020 10:12:15 PM	54080
Ethylbenzene	ND	0.046		mg/Kg	1	8/2/2020 10:12:15 PM	54080
Xylenes, Total	ND	0.092		mg/Kg	1	8/2/2020 10:12:15 PM	54080
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/2/2020 10:12:15 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L6-Surface
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:58:00 AM
Lab ID: 2007E97-011 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	8/3/2020 9:48:56 PM	54133
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/4/2020 9:50:09 AM	54086
Motor Oil Range Organics (MRO)	100	49		mg/Kg	1	8/4/2020 9:50:09 AM	54086
Surr: DNOP	125	30.4-154		%Rec	1	8/4/2020 9:50:09 AM	54086
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/2/2020 10:35:42 PM	54080
Surr: BFB	96.0	75.3-105		%Rec	1	8/2/2020 10:35:42 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	8/2/2020 10:35:42 PM	54080
Toluene	ND	0.048		mg/Kg	1	8/2/2020 10:35:42 PM	54080
Ethylbenzene	ND	0.048		mg/Kg	1	8/2/2020 10:35:42 PM	54080
Xylenes, Total	ND	0.097		mg/Kg	1	8/2/2020 10:35:42 PM	54080
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/2/2020 10:35:42 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L6-1'
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 9:05:00 AM
Lab ID: 2007E97-012 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	8/3/2020 7:00:44 PM	54139
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/3/2020 5:37:06 PM	54135
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/3/2020 5:37:06 PM	54135
Surr: DNOP	97.4	30.4-154		%Rec	1	8/3/2020 5:37:06 PM	54135
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/2/2020 10:59:13 PM	54080
Surr: BFB	95.6	75.3-105		%Rec	1	8/2/2020 10:59:13 PM	54080
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	8/2/2020 10:59:13 PM	54080
Toluene	ND	0.048		mg/Kg	1	8/2/2020 10:59:13 PM	54080
Ethylbenzene	ND	0.048		mg/Kg	1	8/2/2020 10:59:13 PM	54080
Xylenes, Total	ND	0.095		mg/Kg	1	8/2/2020 10:59:13 PM	54080
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/2/2020 10:59:13 PM	54080

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L7-Surface
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 9:15:00 AM
Lab ID: 2007E97-013 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	8/3/2020 7:13:05 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/2/2020 5:12:59 AM	54081
Surr: BFB	99.2	70-130		%Rec	1	8/2/2020 5:12:59 AM	54081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	8/3/2020 6:49:31 PM	54135
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/3/2020 6:49:31 PM	54135
Surr: DNOP	96.8	30.4-154		%Rec	1	8/3/2020 6:49:31 PM	54135
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.024		mg/Kg	1	8/2/2020 5:12:59 AM	54081
Toluene	ND	0.047		mg/Kg	1	8/2/2020 5:12:59 AM	54081
Ethylbenzene	ND	0.047		mg/Kg	1	8/2/2020 5:12:59 AM	54081
Xylenes, Total	ND	0.095		mg/Kg	1	8/2/2020 5:12:59 AM	54081
Surr: 1,2-Dichloroethane-d4	92.3	70-130		%Rec	1	8/2/2020 5:12:59 AM	54081
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	8/2/2020 5:12:59 AM	54081
Surr: Dibromofluoromethane	106	70-130		%Rec	1	8/2/2020 5:12:59 AM	54081
Surr: Toluene-d8	104	70-130		%Rec	1	8/2/2020 5:12:59 AM	54081

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L7-1'
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 9:26:00 AM
Lab ID: 2007E97-014 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/3/2020 7:50:08 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/2/2020 6:38:49 AM	54081
Surr: BFB	99.1	70-130		%Rec	1	8/2/2020 6:38:49 AM	54081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**CLP**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/3/2020 7:13:33 PM	54135
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/3/2020 7:13:33 PM	54135
Surr: DNOP	101	30.4-154		%Rec	1	8/3/2020 7:13:33 PM	54135
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.025		mg/Kg	1	8/2/2020 6:38:49 AM	54081
Toluene	ND	0.050		mg/Kg	1	8/2/2020 6:38:49 AM	54081
Ethylbenzene	ND	0.050		mg/Kg	1	8/2/2020 6:38:49 AM	54081
Xylenes, Total	ND	0.099		mg/Kg	1	8/2/2020 6:38:49 AM	54081
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	8/2/2020 6:38:49 AM	54081
Surr: 4-Bromofluorobenzene	96.6	70-130		%Rec	1	8/2/2020 6:38:49 AM	54081
Surr: Dibromofluoromethane	108	70-130		%Rec	1	8/2/2020 6:38:49 AM	54081
Surr: Toluene-d8	101	70-130		%Rec	1	8/2/2020 6:38:49 AM	54081

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L8-Surface
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 9:36:00 AM
Lab ID: 2007E97-015 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/3/2020 8:02:28 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/2/2020 8:04:28 AM	54081
Surr: BFB	98.0	70-130		%Rec	1	8/2/2020 8:04:28 AM	54081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**CLP**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	8/3/2020 7:37:33 PM	54135
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	8/3/2020 7:37:33 PM	54135
Surr: DNOP	99.5	30.4-154		%Rec	1	8/3/2020 7:37:33 PM	54135
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.025		mg/Kg	1	8/2/2020 8:04:28 AM	54081
Toluene	ND	0.050		mg/Kg	1	8/2/2020 8:04:28 AM	54081
Ethylbenzene	ND	0.050		mg/Kg	1	8/2/2020 8:04:28 AM	54081
Xylenes, Total	ND	0.099		mg/Kg	1	8/2/2020 8:04:28 AM	54081
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%Rec	1	8/2/2020 8:04:28 AM	54081
Surr: 4-Bromofluorobenzene	99.0	70-130		%Rec	1	8/2/2020 8:04:28 AM	54081
Surr: Dibromofluoromethane	110	70-130		%Rec	1	8/2/2020 8:04:28 AM	54081
Surr: Toluene-d8	97.1	70-130		%Rec	1	8/2/2020 8:04:28 AM	54081

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L9-Surface
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 9:48:00 AM
Lab ID: 2007E97-016 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	61	60		mg/Kg	20	8/3/2020 8:14:48 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/2/2020 8:33:05 AM	54081
Surr: BFB	101	70-130		%Rec	1	8/2/2020 8:33:05 AM	54081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	8/3/2020 8:01:30 PM	54135
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	8/3/2020 8:01:30 PM	54135
Surr: DNOP	94.3	30.4-154		%Rec	1	8/3/2020 8:01:30 PM	54135
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	8/2/2020 8:33:05 AM	54081
Toluene	ND	0.049		mg/Kg	1	8/2/2020 8:33:05 AM	54081
Ethylbenzene	ND	0.049		mg/Kg	1	8/2/2020 8:33:05 AM	54081
Xylenes, Total	ND	0.098		mg/Kg	1	8/2/2020 8:33:05 AM	54081
Surr: 1,2-Dichloroethane-d4	99.9	70-130		%Rec	1	8/2/2020 8:33:05 AM	54081
Surr: 4-Bromofluorobenzene	99.2	70-130		%Rec	1	8/2/2020 8:33:05 AM	54081
Surr: Dibromofluoromethane	104	70-130		%Rec	1	8/2/2020 8:33:05 AM	54081
Surr: Toluene-d8	95.9	70-130		%Rec	1	8/2/2020 8:33:05 AM	54081

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L10-Surface
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 9:56:00 AM
Lab ID: 2007E97-017 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	200	61		mg/Kg	20	8/3/2020 8:27:09 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/2/2020 9:01:36 AM	54081
Surr: BFB	102	70-130		%Rec	1	8/2/2020 9:01:36 AM	54081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	8/3/2020 8:25:25 PM	54135
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	8/3/2020 8:25:25 PM	54135
Surr: DNOP	100	30.4-154		%Rec	1	8/3/2020 8:25:25 PM	54135
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.024		mg/Kg	1	8/2/2020 9:01:36 AM	54081
Toluene	ND	0.047		mg/Kg	1	8/2/2020 9:01:36 AM	54081
Ethylbenzene	ND	0.047		mg/Kg	1	8/2/2020 9:01:36 AM	54081
Xylenes, Total	ND	0.094		mg/Kg	1	8/2/2020 9:01:36 AM	54081
Surr: 1,2-Dichloroethane-d4	93.6	70-130		%Rec	1	8/2/2020 9:01:36 AM	54081
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	8/2/2020 9:01:36 AM	54081
Surr: Dibromofluoromethane	104	70-130		%Rec	1	8/2/2020 9:01:36 AM	54081
Surr: Toluene-d8	99.5	70-130		%Rec	1	8/2/2020 9:01:36 AM	54081

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		

Analytical Report
Lab Order **2007E97**
Date Reported: **8/5/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-2'
Project: Mal jamar 15 Fed 1
Collection Date: 7/23/2020 8:50:00 AM
Lab ID: 2007E97-018 **Matrix:** SOIL
Received Date: 7/30/2020 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	8/3/2020 8:39:29 PM	54139
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/2/2020 9:30:05 AM	54081
Surr: BFB	102	70-130		%Rec	1	8/2/2020 9:30:05 AM	54081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	22	9.6		mg/Kg	1	8/3/2020 8:49:21 PM	54135
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/3/2020 8:49:21 PM	54135
Surr: DNOP	103	30.4-154		%Rec	1	8/3/2020 8:49:21 PM	54135
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.024		mg/Kg	1	8/2/2020 9:30:05 AM	54081
Toluene	ND	0.048		mg/Kg	1	8/2/2020 9:30:05 AM	54081
Ethylbenzene	ND	0.048		mg/Kg	1	8/2/2020 9:30:05 AM	54081
Xylenes, Total	ND	0.097		mg/Kg	1	8/2/2020 9:30:05 AM	54081
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	1	8/2/2020 9:30:05 AM	54081
Surr: 4-Bromofluorobenzene	98.9	70-130		%Rec	1	8/2/2020 9:30:05 AM	54081
Surr: Dibromofluoromethane	107	70-130		%Rec	1	8/2/2020 9:30:05 AM	54081
Surr: Toluene-d8	104	70-130		%Rec	1	8/2/2020 9:30:05 AM	54081

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#: **2007E97**
05-Aug-20

Client: Souder, Miller & Associates
Project: Mal jamar 15 Fed 1

Sample ID: **MB-54139** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **54139** RunNo: **70812**
Prep Date: **8/3/2020** Analysis Date: **8/3/2020** SeqNo: **2465249** Units: **mg/Kg**

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

Sample ID: **LCS-54139** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **54139** RunNo: **70812**
Prep Date: **8/3/2020** Analysis Date: **8/3/2020** SeqNo: **2465250** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

Sample ID: **MB-54133** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **54133** RunNo: **70785**
Prep Date: **8/3/2020** Analysis Date: **8/3/2020** SeqNo: **2465333** Units: **mg/Kg**

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

Sample ID: **LCS-54133** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **54133** RunNo: **70785**
Prep Date: **8/3/2020** Analysis Date: **8/3/2020** SeqNo: **2465334** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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#: **2007E97**
05-Aug-20

Client: Souder, Miller & Associates
Project: Mal jamar 15 Fed 1

Sample ID: **MB-54086** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **54086** RunNo: **70751**
Prep Date: **7/31/2020** Analysis Date: **7/31/2020** SeqNo: **2462385** 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	10		10.00		103	30.4	154			

Sample ID: **LCS-54086** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **54086** RunNo: **70751**
Prep Date: **7/31/2020** Analysis Date: **7/31/2020** SeqNo: **2462386** 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	99.2	70	130			
Surr: DNOP	4.7		5.000		93.4	30.4	154			

Sample ID: **MB-54113** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **54113** RunNo: **70780**
Prep Date: **8/3/2020** Analysis Date: **8/3/2020** SeqNo: **2463386** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		96.0	30.4	154			

Sample ID: **LCS-54113** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **54113** RunNo: **70780**
Prep Date: **8/3/2020** Analysis Date: **8/3/2020** SeqNo: **2463387** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.5	30.4	154			

Sample ID: **2007E97-012AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L6-1'** Batch ID: **54135** RunNo: **70780**
Prep Date: **8/3/2020** Analysis Date: **8/3/2020** SeqNo: **2464510** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.7	48.73	0	99.7	47.4	136			
Surr: DNOP	4.7		4.873		95.5	30.4	154			

Sample ID: **2007E97-012AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L6-1'** Batch ID: **54135** RunNo: **70780**
Prep Date: **8/3/2020** Analysis Date: **8/3/2020** SeqNo: **2464511** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.8	48.97	0	100	47.4	136	0.773	43.4	

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#: **2007E97**
05-Aug-20

Client: Souder, Miller & Associates
Project: Mal jamar 15 Fed 1

Sample ID: **2007E97-012AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L6-1'** Batch ID: **54135** RunNo: **70780**
Prep Date: **8/3/2020** Analysis Date: **8/3/2020** SeqNo: **2464511** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		4.897		95.8	30.4	154	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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#: **2007E97**

05-Aug-20

Client: Souder, Miller & Associates

Project: Mal jamar 15 Fed 1

Sample ID: **mb-54080** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **54080** RunNo: **70777**

Prep Date: **7/30/2020** Analysis Date: **8/2/2020** SeqNo: **2463182** 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	990		1000		98.8	75.3	105			

Sample ID: **lcs-54080** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **54080** RunNo: **70777**

Prep Date: **7/30/2020** Analysis Date: **8/2/2020** SeqNo: **2463183** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.4	72.5	106			
Surr: BFB	1100		1000		111	75.3	105			S

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#: **2007E97**

05-Aug-20

Client: Souder, Miller & Associates

Project: Mal jamar 15 Fed 1

Sample ID: **mb-54080** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **54080** RunNo: **70777**

Prep Date: **7/30/2020** Analysis Date: **8/2/2020** SeqNo: **2463261** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID: **LCS-54080** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **54080** RunNo: **70777**

Prep Date: **7/30/2020** Analysis Date: **8/2/2020** SeqNo: **2463262** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.8	80	120			
Toluene	0.95	0.050	1.000	0	95.1	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2007E97**
05-Aug-20

Client: Souder, Miller & Associates
Project: Mal jamar 15 Fed 1

Sample ID: **mb1** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **S70775** RunNo: **70775**
Prep Date: Analysis Date: **8/1/2020** SeqNo: **2463032** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID: **100ng lcs** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **S70775** RunNo: **70775**
Prep Date: Analysis Date: **8/1/2020** SeqNo: **2463033** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

Sample ID: **mb-54081** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **54081** RunNo: **70775**
Prep Date: **7/30/2020** Analysis Date: **8/2/2020** SeqNo: **2463058** 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: 1,2-Dichloroethane-d4	0.47		0.5000		94.6	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		99.0	70	130			

Sample ID: **lcs-54081** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **54081** RunNo: **70775**
Prep Date: **7/30/2020** Analysis Date: **8/2/2020** SeqNo: **2463059** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.5	80	120			
Toluene	1.0	0.050	1.000	0	99.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	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#: **2007E97**
05-Aug-20

Client: Souder, Miller & Associates
Project: Mal jamar 15 Fed 1

Sample ID: **lcs-54081** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **54081** RunNo: **70775**
Prep Date: **7/30/2020** Analysis Date: **8/2/2020** SeqNo: **2463059** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: Toluene-d8	0.49		0.5000		98.0	70	130			

Sample ID: **2007e97-013ams** SampType: **MS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **L7-Surface** Batch ID: **54081** RunNo: **70775**
Prep Date: **7/30/2020** Analysis Date: **8/2/2020** SeqNo: **2463061** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	0.9940	0	94.8	71.1	115			
Toluene	0.97	0.050	0.9940	0	97.2	79.6	132			
Ethylbenzene	1.0	0.050	0.9940	0	101	83.8	134			
Xylenes, Total	3.1	0.099	2.982	0	106	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.50		0.4970		100	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.4970		95.8	70	130			
Surr: Dibromofluoromethane	0.54		0.4970		108	70	130			
Surr: Toluene-d8	0.50		0.4970		99.7	70	130			

Sample ID: **2007e97-013amsd** SampType: **MSD4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **L7-Surface** Batch ID: **54081** RunNo: **70775**
Prep Date: **7/30/2020** Analysis Date: **8/2/2020** SeqNo: **2463062** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	0.9911	0	94.5	71.1	115	0.615	20	
Toluene	1.0	0.050	0.9911	0	105	79.6	132	7.75	20	
Ethylbenzene	1.0	0.050	0.9911	0	105	83.8	134	3.55	20	
Xylenes, Total	3.4	0.099	2.973	0	113	82.4	132	6.87	20	
Surr: 1,2-Dichloroethane-d4	0.50		0.4955		101	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.48		0.4955		97.3	70	130	0	0	
Surr: Dibromofluoromethane	0.51		0.4955		103	70	130	0	0	
Surr: Toluene-d8	0.51		0.4955		102	70	130	0	0	

Sample ID: **mb1** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **S70783** RunNo: **70783**
Prep Date: Analysis Date: **8/2/2020** SeqNo: **2463614** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.6	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.5	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.50		0.5000		101	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#: **2007E97**
05-Aug-20

Client: Souder, Miller & Associates
Project: Mal jamar 15 Fed 1

Sample ID: **100ng lcs** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **S70783** RunNo: **70783**
Prep Date: Analysis Date: **8/2/2020** SeqNo: **2463615** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.49		0.5000		98.0	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#: **2007E97**

05-Aug-20

Client: Souder, Miller & Associates

Project: Mal jamar 15 Fed 1

Sample ID: **mb1**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **G70775**	RunNo: **70775**
Prep Date:	Analysis Date: **8/1/2020**	SeqNo: **2463070** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	510		500.0		103	70	130			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G70775**	RunNo: **70775**
Prep Date:	Analysis Date: **8/1/2020**	SeqNo: **2463071** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	500		500.0		99.7	70	130			

Sample ID: **mb-54081**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **54081**	RunNo: **70775**
Prep Date: **7/30/2020**	Analysis Date: **8/2/2020**	SeqNo: **2463097** 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	500		500.0		99.8	70	130			

Sample ID: **lcs-54081**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **54081**	RunNo: **70775**
Prep Date: **7/30/2020**	Analysis Date: **8/2/2020**	SeqNo: **2463098** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.4	70	130			
Surr: BFB	480		500.0		96.5	70	130			

Sample ID: **2007e97-014ams**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **L7-1'**	Batch ID: **54081**	RunNo: **70775**
Prep Date: **7/30/2020**	Analysis Date: **8/2/2020**	SeqNo: **2463101** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.44	0	86.0	49.2	122			
Surr: BFB	480		488.8		98.5	70	130			

Sample ID: **2007e97-014amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **L7-1'**	Batch ID: **54081**	RunNo: **70775**
Prep Date: **7/30/2020**	Analysis Date: **8/2/2020**	SeqNo: **2463102** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.8	24.11	0	83.0	49.2	122	4.91	20	
Surr: BFB	450		482.2		93.0	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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#: **2007E97**
05-Aug-20

Client: Souder, Miller & Associates
Project: Mal jamar 15 Fed 1

Sample ID: **mb1** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **G70783** RunNo: **70783**
Prep Date: Analysis Date: **8/2/2020** SeqNo: **2463638** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	490		500.0		98.0	70	130			

Sample ID: **2.5ug gro lcs** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **G70783** RunNo: **70783**
Prep Date: Analysis Date: **8/2/2020** SeqNo: **2463639** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	510		500.0		103	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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Souder, Miller & Associates | Work Order Number: 2007E97 | RcptNo: 1

Received By: Cheyenne Cason 7/30/2020 9:25:00 AM

Completed By: Juan Rojas 7/30/2020 9:41:50 AM

Reviewed By: DAD 7/30/20

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. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

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

Adjusted? _____

Checked by: SPA 7.30.20

Special Handling (if applicable)

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

Person Notified: Ashley Maxwell Date: 7/29/20

By Whom: Leah Via: ☐ eMail ☒ Phone ☐ Fax ☐ In Person

Regarding: extra sample NOT on COC - added and proceed ALL with Ashley

Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good				

Chain-of-Custody Record

Client: SMA

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 3 day

Project Name:
Maljamar 15 Fed 1

Project #:

Project Manager:
Ashley Maxwell

Sampler: SO

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 3.4+0=3.4 (°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. 2007E97	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)
	8:00	Soil	L1-Surface	4oz	Cool	-001	X	X					X			
	8:05		L1-1'			-002										
	8:08		L2-Surface			-003										
	8:10		L2-1'			-004										
	8:15		L3-Surface			-005										
	8:20		L3-1'			-006										
	8:25		L4-Surface			-007										
	8:35		L4-1'			-008										
	8:40		L5-Surface			-009										
	8:48		L5-1'			-010										
	8:58		L6-Surface			-011										
	9:05		L6-1'			-012										

Date	Time	Relinquished by	Received by	Via	Date	Time
7/29/20	0730	Sebastian Orozco				
7/29/20	1910		Cmc courier		7/30/20	0925

Remarks:
Bill to Devon

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

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 3 day

Project Name:
Maljamar 15 Fed 1

Project #:

Project Manager:
Ashley Maxwell

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.4+0=3.4 (°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. 7007E97
7/23/20	9:15	Soil	L7-Surface	4oz	Cool	-013
	9:26		L7-1'			-014
	9:36		L8-Surface			-015
	9:48		L9-Surface			-016
	9:56		L10-Surface			-017
7/23/20	0850		L5-2'			-018

per bottle
LB 7/30/20

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)
✓	✓					✓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
7/29/20	[redacted]	Kelsea Leary Draper			7/29/20	0730
7/29/20	1900		CMC Courier		7/30/20	0925

Remarks:
Bill to Devon

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: clients.hallenvironmental.com

September 16, 2020

Ashley Maxwell

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

RE: Maljamar 15 50 OrderNo.: 2009562

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 11 sample(s) on 9/10/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW1
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:05:00 AM
Lab ID: 2009562-001 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 9:29:56 AM	55161
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/11/2020 5:13:21 PM	55083
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/11/2020 5:13:21 PM	55083
Surr: DNOP	127	30.4-154		%Rec	1	9/11/2020 5:13:21 PM	55083
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/14/2020 3:12:48 PM	55080
Surr: BFB	91.2	75.3-105		%Rec	1	9/14/2020 3:12:48 PM	55080
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 3:12:48 PM	55080
Toluene	ND	0.050		mg/Kg	1	9/14/2020 3:12:48 PM	55080
Ethylbenzene	ND	0.050		mg/Kg	1	9/14/2020 3:12:48 PM	55080
Xylenes, Total	ND	0.10		mg/Kg	1	9/14/2020 3:12:48 PM	55080
Surr: 4-Bromofluorobenzene	96.5	80-120		%Rec	1	9/14/2020 3:12:48 PM	55080

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		

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW2
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:10:00 AM
Lab ID: 2009562-002 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 10:07:10 AM	55161
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/11/2020 5:23:10 PM	55083
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/11/2020 5:23:10 PM	55083
Surr: DNOP	104	30.4-154		%Rec	1	9/11/2020 5:23:10 PM	55083
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/14/2020 3:36:12 PM	55080
Surr: BFB	92.8	75.3-105		%Rec	1	9/14/2020 3:36:12 PM	55080
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/14/2020 3:36:12 PM	55080
Toluene	ND	0.049		mg/Kg	1	9/14/2020 3:36:12 PM	55080
Ethylbenzene	ND	0.049		mg/Kg	1	9/14/2020 3:36:12 PM	55080
Xylenes, Total	ND	0.097		mg/Kg	1	9/14/2020 3:36:12 PM	55080
Surr: 4-Bromofluorobenzene	98.9	80-120		%Rec	1	9/14/2020 3:36:12 PM	55080

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		

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW3
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:15:00 AM
Lab ID: 2009562-003 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 10:19:34 AM	55161
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/11/2020 5:33:00 PM	55083
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/11/2020 5:33:00 PM	55083
Surr: DNOP	103	30.4-154		%Rec	1	9/11/2020 5:33:00 PM	55083
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/14/2020 3:59:41 PM	55080
Surr: BFB	95.1	75.3-105		%Rec	1	9/14/2020 3:59:41 PM	55080
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 3:59:41 PM	55080
Toluene	ND	0.050		mg/Kg	1	9/14/2020 3:59:41 PM	55080
Ethylbenzene	ND	0.050		mg/Kg	1	9/14/2020 3:59:41 PM	55080
Xylenes, Total	ND	0.10		mg/Kg	1	9/14/2020 3:59:41 PM	55080
Surr: 4-Bromofluorobenzene	98.7	80-120		%Rec	1	9/14/2020 3:59:41 PM	55080

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		

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW4
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:20:00 AM
Lab ID: 2009562-004 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 10:31:58 AM	55161
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/11/2020 5:42:54 PM	55083
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/11/2020 5:42:54 PM	55083
Surr: DNOP	106	30.4-154		%Rec	1	9/11/2020 5:42:54 PM	55083
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/14/2020 4:23:19 PM	55080
Surr: BFB	91.6	75.3-105		%Rec	1	9/14/2020 4:23:19 PM	55080
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/14/2020 4:23:19 PM	55080
Toluene	ND	0.049		mg/Kg	1	9/14/2020 4:23:19 PM	55080
Ethylbenzene	ND	0.049		mg/Kg	1	9/14/2020 4:23:19 PM	55080
Xylenes, Total	ND	0.098		mg/Kg	1	9/14/2020 4:23:19 PM	55080
Surr: 4-Bromofluorobenzene	97.0	80-120		%Rec	1	9/14/2020 4:23:19 PM	55080

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		

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW5
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:35:00 AM
Lab ID: 2009562-005 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 10:44:23 AM	55161
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/11/2020 8:50:12 PM	55088
Surr: BFB	101	70-130		%Rec	1	9/11/2020 8:50:12 PM	55088
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	9/11/2020 3:49:19 PM	55091
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/11/2020 3:49:19 PM	55091
Surr: DNOP	107	30.4-154		%Rec	1	9/11/2020 3:49:19 PM	55091
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/11/2020 8:50:12 PM	55088
Toluene	ND	0.050		mg/Kg	1	9/11/2020 8:50:12 PM	55088
Ethylbenzene	ND	0.050		mg/Kg	1	9/11/2020 8:50:12 PM	55088
Xylenes, Total	ND	0.10		mg/Kg	1	9/11/2020 8:50:12 PM	55088
Surr: 1,2-Dichloroethane-d4	89.9	70-130		%Rec	1	9/11/2020 8:50:12 PM	55088
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/11/2020 8:50:12 PM	55088
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/11/2020 8:50:12 PM	55088
Surr: Toluene-d8	100	70-130		%Rec	1	9/11/2020 8:50:12 PM	55088

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		

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW6
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:40:00 AM
Lab ID: 2009562-006 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 11:21:35 AM	55161
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/11/2020 10:15:41 PM	55088
Surr: BFB	99.9	70-130		%Rec	1	9/11/2020 10:15:41 PM	55088
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/11/2020 4:13:22 PM	55091
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/11/2020 4:13:22 PM	55091
Surr: DNOP	96.1	30.4-154		%Rec	1	9/11/2020 4:13:22 PM	55091
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/11/2020 10:15:41 PM	55088
Toluene	ND	0.050		mg/Kg	1	9/11/2020 10:15:41 PM	55088
Ethylbenzene	ND	0.050		mg/Kg	1	9/11/2020 10:15:41 PM	55088
Xylenes, Total	ND	0.099		mg/Kg	1	9/11/2020 10:15:41 PM	55088
Surr: 1,2-Dichloroethane-d4	93.2	70-130		%Rec	1	9/11/2020 10:15:41 PM	55088
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	9/11/2020 10:15:41 PM	55088
Surr: Dibromofluoromethane	107	70-130		%Rec	1	9/11/2020 10:15:41 PM	55088
Surr: Toluene-d8	103	70-130		%Rec	1	9/11/2020 10:15:41 PM	55088

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		

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW7
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:45:00 AM
Lab ID: 2009562-007 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	59		mg/Kg	20	9/15/2020 11:34:00 AM	55161
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/12/2020 1:35:07 AM	55088
Surr: BFB	98.0	70-130		%Rec	1	9/12/2020 1:35:07 AM	55088
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	9/11/2020 4:37:39 PM	55091
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	9/11/2020 4:37:39 PM	55091
Surr: DNOP	106	30.4-154		%Rec	1	9/11/2020 4:37:39 PM	55091
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 1:35:07 AM	55088
Toluene	ND	0.050		mg/Kg	1	9/12/2020 1:35:07 AM	55088
Ethylbenzene	ND	0.050		mg/Kg	1	9/12/2020 1:35:07 AM	55088
Xylenes, Total	ND	0.099		mg/Kg	1	9/12/2020 1:35:07 AM	55088
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%Rec	1	9/12/2020 1:35:07 AM	55088
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/12/2020 1:35:07 AM	55088
Surr: Dibromofluoromethane	108	70-130		%Rec	1	9/12/2020 1:35:07 AM	55088
Surr: Toluene-d8	99.2	70-130		%Rec	1	9/12/2020 1:35:07 AM	55088

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		

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW8
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:50:00 AM
Lab ID: 2009562-008 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 11:46:24 AM	55161
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/12/2020 2:03:42 AM	55088
Surr: BFB	97.7	70-130		%Rec	1	9/12/2020 2:03:42 AM	55088
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/11/2020 5:01:49 PM	55091
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/11/2020 5:01:49 PM	55091
Surr: DNOP	103	30.4-154		%Rec	1	9/11/2020 5:01:49 PM	55091
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.024		mg/Kg	1	9/12/2020 2:03:42 AM	55088
Toluene	ND	0.047		mg/Kg	1	9/12/2020 2:03:42 AM	55088
Ethylbenzene	ND	0.047		mg/Kg	1	9/12/2020 2:03:42 AM	55088
Xylenes, Total	ND	0.094		mg/Kg	1	9/12/2020 2:03:42 AM	55088
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%Rec	1	9/12/2020 2:03:42 AM	55088
Surr: 4-Bromofluorobenzene	97.9	70-130		%Rec	1	9/12/2020 2:03:42 AM	55088
Surr: Dibromofluoromethane	107	70-130		%Rec	1	9/12/2020 2:03:42 AM	55088
Surr: Toluene-d8	101	70-130		%Rec	1	9/12/2020 2:03:42 AM	55088

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		

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS1
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:25:00 AM
Lab ID: 2009562-009 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 11:58:49 AM	55161
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/12/2020 2:32:13 AM	55088
Surr: BFB	103	70-130		%Rec	1	9/12/2020 2:32:13 AM	55088
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/11/2020 5:50:26 PM	55091
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/11/2020 5:50:26 PM	55091
Surr: DNOP	89.3	30.4-154		%Rec	1	9/11/2020 5:50:26 PM	55091
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 2:32:13 AM	55088
Toluene	ND	0.050		mg/Kg	1	9/12/2020 2:32:13 AM	55088
Ethylbenzene	ND	0.050		mg/Kg	1	9/12/2020 2:32:13 AM	55088
Xylenes, Total	ND	0.099		mg/Kg	1	9/12/2020 2:32:13 AM	55088
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%Rec	1	9/12/2020 2:32:13 AM	55088
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	9/12/2020 2:32:13 AM	55088
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/12/2020 2:32:13 AM	55088
Surr: Toluene-d8	102	70-130		%Rec	1	9/12/2020 2:32:13 AM	55088

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		

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS2
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:30:00 AM
Lab ID: 2009562-010 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 12:11:14 PM	55161
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/12/2020 3:00:41 AM	55088
Surr: BFB	104	70-130		%Rec	1	9/12/2020 3:00:41 AM	55088
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/11/2020 6:14:49 PM	55091
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/11/2020 6:14:49 PM	55091
Surr: DNOP	89.6	30.4-154		%Rec	1	9/11/2020 6:14:49 PM	55091
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 3:00:41 AM	55088
Toluene	ND	0.049		mg/Kg	1	9/12/2020 3:00:41 AM	55088
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 3:00:41 AM	55088
Xylenes, Total	ND	0.099		mg/Kg	1	9/12/2020 3:00:41 AM	55088
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%Rec	1	9/12/2020 3:00:41 AM	55088
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	9/12/2020 3:00:41 AM	55088
Surr: Dibromofluoromethane	107	70-130		%Rec	1	9/12/2020 3:00:41 AM	55088
Surr: Toluene-d8	101	70-130		%Rec	1	9/12/2020 3:00:41 AM	55088

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		

Analytical Report
Lab Order **2009562**
Date Reported: **9/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS3
Project: Maljamar 15 50
Collection Date: 9/8/2020 9:55:00 AM
Lab ID: 2009562-011 **Matrix:** SOIL **Received Date:** 9/10/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 12:23:38 PM	55161
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/12/2020 3:29:08 AM	55088
Surr: BFB	102	70-130		%Rec	1	9/12/2020 3:29:08 AM	55088
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/11/2020 6:39:06 PM	55091
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/11/2020 6:39:06 PM	55091
Surr: DNOP	83.6	30.4-154		%Rec	1	9/11/2020 6:39:06 PM	55091
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 3:29:08 AM	55088
Toluene	ND	0.050		mg/Kg	1	9/12/2020 3:29:08 AM	55088
Ethylbenzene	ND	0.050		mg/Kg	1	9/12/2020 3:29:08 AM	55088
Xylenes, Total	ND	0.099		mg/Kg	1	9/12/2020 3:29:08 AM	55088
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%Rec	1	9/12/2020 3:29:08 AM	55088
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	9/12/2020 3:29:08 AM	55088
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/12/2020 3:29:08 AM	55088
Surr: Toluene-d8	100	70-130		%Rec	1	9/12/2020 3:29:08 AM	55088

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#: **2009562**
16-Sep-20

Client: Souder, Miller & Associates
Project: Maljamar 15 50

Sample ID: **MB-55161** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **55161** RunNo: **71884**
Prep Date: **9/15/2020** Analysis Date: **9/15/2020** SeqNo: **2516008** Units: **mg/Kg**

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

Sample ID: **LCS-55161** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **55161** RunNo: **71884**
Prep Date: **9/15/2020** Analysis Date: **9/15/2020** SeqNo: **2516009** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.1	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 Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2009562**
16-Sep-20

Client: Souder, Miller & Associates
Project: Maljamar 15 50

Sample ID: **LCS-55083** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **55083** RunNo: **71804**
Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2512449** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	107	70	130			
Surr: DNOP	5.0		5.000		99.7	30.4	154			

Sample ID: **MB-55083** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **55083** RunNo: **71804**
Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2512450** 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	30.4	154			

Sample ID: **LCS-55091** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **55091** RunNo: **71809**
Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2512603** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	112	70	130			
Surr: DNOP	5.3		5.000		105	30.4	154			

Sample ID: **MB-55091** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **55091** RunNo: **71809**
Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2512604** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		97.7	30.4	154			

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#: **2009562**

16-Sep-20

Client: Souder, Miller & Associates

Project: Maljamar 15 50

Sample ID: **lcs-54986** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **54986** RunNo: **71790**

Prep Date: **9/6/2020** Analysis Date: **9/11/2020** SeqNo: **2511831** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1200		1000		116	75.3	105			S

Sample ID: **lcs-55080** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **55080** RunNo: **71790**

Prep Date: **9/10/2020** Analysis Date: **9/12/2020** SeqNo: **2511832** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	25.00	0	75.2	72.5	106			
Surr: BFB	1000		1000		100	75.3	105			

Sample ID: **mb-54986** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **54986** RunNo: **71790**

Prep Date: **9/6/2020** Analysis Date: **9/11/2020** SeqNo: **2511833** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		108	75.3	105			S

Sample ID: **mb-55080** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **55080** RunNo: **71790**

Prep Date: **9/10/2020** Analysis Date: **9/12/2020** SeqNo: **2511834** 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	920		1000		92.4	75.3	105			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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#: **2009562**

16-Sep-20

Client: Souder, Miller & Associates

Project: Maljamar 15 50

Sample ID: **LCS-55080**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **55080**	RunNo: **71790**
Prep Date: **9/10/2020**	Analysis Date: **9/12/2020**	SeqNo: **2511862** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.6	80	120			
Toluene	0.94	0.050	1.000	0	94.1	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID: **mb-55080**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **55080**	RunNo: **71790**
Prep Date: **9/10/2020**	Analysis Date: **9/12/2020**	SeqNo: **2511863** 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		99.1	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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2009562**
16-Sep-20

Client: Souder, Miller & Associates
Project: Maljamar 15 50

Sample ID: **mb-55088** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **55088** RunNo: **71789**
Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2511752** 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: 1,2-Dichloroethane-d4	0.47		0.5000		93.4	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID: **lcs-55088** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **55088** RunNo: **71789**
Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2511753** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.8	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.5	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: **2009562-005ams** SampType: **MS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SW5** Batch ID: **55088** RunNo: **71789**
Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2511755** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	0.9930	0	97.1	71.1	115			
Toluene	1.1	0.050	0.9930	0	106	79.6	132			
Ethylbenzene	1.1	0.050	0.9930	0	106	83.8	134			
Xylenes, Total	3.4	0.099	2.979	0	113	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.47		0.4965		93.9	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.4965		106	70	130			
Surr: Dibromofluoromethane	0.52		0.4965		105	70	130			
Surr: Toluene-d8	0.50		0.4965		101	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#: **2009562**
16-Sep-20

Client: Souder, Miller & Associates
Project: Maljamar 15 50

Sample ID: **2009562-005amsd** SampType: **MSD4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SW5** Batch ID: **55088** RunNo: **71789**
Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2511756** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.024	0.9785	0	99.5	71.1	115	0.990	20	
Toluene	1.0	0.049	0.9785	0	106	79.6	132	1.19	20	
Ethylbenzene	1.0	0.049	0.9785	0	105	83.8	134	1.92	20	
Xylenes, Total	3.3	0.098	2.935	0	112	82.4	132	2.69	20	
Surr: 1,2-Dichloroethane-d4	0.48		0.4892		97.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.51		0.4892		105	70	130	0	0	
Surr: Dibromofluoromethane	0.54		0.4892		111	70	130	0	0	
Surr: Toluene-d8	0.49		0.4892		100	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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#: **2009562**

16-Sep-20

Client: Souder, Miller & Associates

Project: Maljamar 15 50

Sample ID: **mb-55088** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **PBS** Batch ID: **55088** RunNo: **71789**

Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2511770** 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	510		500.0		101	70	130			

Sample ID: **lcs-55088** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **LCSS** Batch ID: **55088** RunNo: **71789**

Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2511771** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.8	70	130			
Surr: BFB	520		500.0		105	70	130			

Sample ID: **2009562-006ams** SampType: **MS** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **SW6** Batch ID: **55088** RunNo: **71789**

Prep Date: **9/10/2020** Analysis Date: **9/11/2020** SeqNo: **2511774** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.9	24.46	0	88.0	49.2	122			
Surr: BFB	500		489.2		103	70	130			

Sample ID: **2009562-006amsd** SampType: **MSD** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **SW6** Batch ID: **55088** RunNo: **71789**

Prep Date: **9/10/2020** Analysis Date: **9/12/2020** SeqNo: **2511775** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.70	0	93.8	49.2	122	7.37	20	
Surr: BFB	520		494.1		106	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Souder, Miller & Associates | Work Order Number: 2009562 | RcptNo: 1

Received By: **Juan Rojas** 9/10/2020 8:00:00 AM

Completed By: **Juan Rojas** 9/10/2020 8:59:40 AM

Reviewed By: SPA 9.10.20

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. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

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

Adjusted? _____

Checked by: CM 9/10/20

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

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

Chain-of-Custody Record

Client: SMA

Mailing Address: 201 S. Halagueno St.

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name:

Project #:

Project Manager: Ashley Maxwell

Sampler: SO

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.9+0.2=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. 2009562	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)
9/8/20	9:05	Soil	SW1	1-4oz	Cool	-001	X	X					X			
	9:10	soil	SW2			-002										
	9:15	Soil	SW3			-003										
	9:20	Soil	SW4			-004										
	9:35	Soil	SW5			-005										
	9:40	Soil	SW6			-006										
	9:45	Soil	SW7			-007										
	9:50	Soil	SW8			-008										
	9:25	Soil	CS1			-009										
	9:30	Soil	CS2			-010										
	9:55	Soil	CS3			-011										
			per sample JR 9/10/20													

Date	Time	Relinquished by	Received by	Via	Date	Time
9/9/20	1030				9/9/20	1030
9/9/20	1900			courier	9/10/20	8:00

Remarks: Devon WO# 208699O7

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
PHOTO LOG


E
30
60
90
120
81°E (T)
32°50'16"N, 103°44'59"W ±16ft
4075ft
03 Sep 2020 11:37:06


NE
330
0
30
60
90
24°NE (T)
32°50'16"N, 103°44'59"W ±13ft
4074ft
03 Sep 2020 11:37:25


NE
300
330
30
60
0°N (T)
32°50'16"N, 103°44'59"W ±13ft
4075ft
03 Sep 2020


NW
210
240
300
330
271°W (T)
32°50'16"N, 103°44'59"W ±16ft
4074ft
03 Sep 2020 11:38:38


E
SE
30
60
90
120
150
94°E (T)
32°50'16"N, 103°45'0"W ±13ft
4073ft
03 Sep 2020, 11:39:09

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

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

CONDITIONS

Action 10718

CONDITIONS

Operator: Pima Environmental Services, LLC 5614 N Lovington Hwy Hobbs, NM 88240	OGRID: 329999
	Action Number: 10718
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	1/13/2023