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

REVIEWED
By Olivia Yu at 10:22 am, Jul 25, 2018

July 10, 2018

#5E27122-BG8

NMOCD District I
Olivia Yu
1625 N. French Drive
Hobbs, NM 88240

NMOCD agrees that delineation is completed for 1RP-4869 & 1RP-5003. See email correspondence regarding remediation.

SUBJECT: SOIL REMEDIATION CLOSURE REPORT FOR THE INCIDENTS AT THE TONTO 15 STATE #1 , LEA COUNTY, NEW MEXICO

Dear Ms. Yu:

On behalf of Marathon Oil Permian LLC, Souder, Miller & Associates (SMA) has prepared this CLOSURE REPORT that describes the assessment, delineation and remediation for the releases associated with the Tonto 15 State #1. The site is in UNIT I, SECTION 15, TOWNSHIP 18S, RANGE 34E, NMPM, Lea County, New Mexico, on State land. Figure 1 illustrates the vicinity and location of the site. Table 1, below, summarizes information regarding the release.

Table 1: Release information and Site Ranking

Name	Tonto 15 State #1
Company	Marathon Oil Permian LLC
Incident Number	1RP-4869 1RP-5003
API Number	30-025-28897
Location	32.7459831, -103.5429764
Estimated Date of Release	1RP-4869-October 29, 2017 1RP-5003-March 14, 2018
Date Reported to NMOCD	1RP-4869-November 2, 2017 1RP-5003-March 15, 2018
Land Owner	State
Reported To	NMOCD District I
Source of Release	1RP-4869-Stuffing Box 1RP-5003-Stuffing Box
Released Material	1RP-4869-Oil 1RP-5003-Oil
Released Volume	1RP-4869-23 bbls 1RP-5003-6.32 bbls
Recovered Volume	1RP-4869-12 bbls 1RP-5003-5.3 bbls
Net Release	1RP-4869-11 bbls 1RP-5003-1.02 bbls
Nearest Waterway	Surface water is approximately 2,660’ SW of location
Depth to Groundwater	Estimated to be 100’
Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	0
SMA Response Dates	April 26, 2018, May 17, 2018, June 7, 2018

1.0 Background

On October 29, 2017, a 23 bbl oil spill occurred due to a valve at the well being inadvertently closed, which resulted in the stuffing box forming a leak (1RP-4869). The surface impact was confined to the well pad and access road. An area of approximately 144 feet wide by 4 feet long was impacted on the well pad. An area approximately 16 feet wide and 48 feet long was impacted on the access road. A vacuum truck was able to recover approximately 12 bbls of standing fluid.

On March 14, 2018, a 6.32 bbls oil spill occurred due to a stuffing box leak (1RP-5003). The surface impact was confined to the well pad. Two areas of impact were observed measuring approximately 55 feet wide by 3 feet long and 30 feet wide by 30 feet long. A vacuum truck was able to recover approximately 1 bbl of standing fluid.

2.0 Site Ranking and Land Jurisdiction

The release site is located near Artesia, New Mexico with an elevation of approximately 4,020 feet above sea level. SMA searched the New Mexico State Engineer's Office (NMOSE) online water well database for water wells in the vicinity of the release. Several wells are located within a three-mile radius of the site. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be 100 feet below ground surface (bgs).

Recommended Remediation Action Levels (RRALs) are determined by the site ranking according to the NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (1993). Below in Table 2 are the remediation standards and the site ranking for this location. Justification for this site ranking is found in Figure 1 and Appendix B.

Table 2.

Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM

Depth to Groundwater	NMOCD Numeric Rank
< 50 BGS = 20	
50' to 99' = 10	
>100' = 0	0
Distance to Nearest Surface Water	**NMOCD Numeric Rank**
< 200' = 20	
200' - 1000' = 10	
>1000' = 0	0
Well Head Protection	**NMOCD Numeric Rank**
<1000' (or <200' domestic) = 20	
> 1000' = 0	0
Total Site Ranking	**0**

3.0 Release Characterization

On April 26, 2018, SMA field personnel assessed the release area. Soil samples were field-screened using a mobile EC unit (EPA 4500) and a calibrated MiniRAE 3000 photoionization detector (PID). Five sample locations (L1-L5) were augured by hand to a maximum depth of 1 foot bgs to characterize the release.

On May 17, 2018, SMA field personnel returned to the location to further delineate sample locations L1 through L5 with a backhoe service. The backhoe encountered limestone bedrock across the pad at depths that ranged from 10 inches to 2 feet. This occurance is validated in the Web Soil Survey (USDA), which states that bedrock should be found from 10 to 16 inches and will continue to at least 80 inches.

As summarized in Table 3, results indicated that hydrocarbon impacts were primarily surficial (0.5 foot), with chloride impacts extending to at least 1.5 feet. SMA recommended excavation of the impacted area to remove chloride-contaminated soil, or until bedrock was encountered.

All samples were collected and processed according to NMOCD soil sampling procedures. The samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for MRO, DRO, and GRO by EPA Method 8015D, BTEX by EPA Method 8021, and Chlorides by Method 300. Sample locations are depicted on Figure 2. All field screening and laboratory results are summarized in Table 3. Laboratory reports are included in Appendix C.

4.0 Soil Remediation

SMA guided the excavation in the impact area to bedrock. Sample L4 was excavated to 1 foot bgs, sample locations L2 and L3 were excavated to 1.5 feet bgs, and the pooling area around sample location L5 was excavated to 2 feet bgs. SMA continuously guided the excavation activities by collecting soil samples for field screening with a mobile EC unit (EPA 4500) and PID unit. Seven sidewall samples were collected from the excavated area to demonstrate lateral delineation. However, one sidewall (SW6) and two bottom hole (L2 and L3) samples still resulted in elevated chlorides, so these areas were extended and resampled on June 20, 2018.

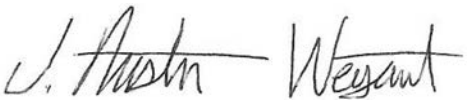
All samples were collected and processed according to NMOCD soil sampling procedures. The samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for MRO, DRO, and GRO by EPA Method 8015D, BTEX by EPA Method 8021, and Chlorides by Method 300. Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soils were transported for proper disposal at an NMOCD permitted disposal facility. Sample location L1 was not excavated due to multiple electrical lines and proximity to the pump jack. We are requesting to defer the cleanup in the area until site abandonment.

5.0 Scope and Limitations

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

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

Submitted by:
SOUDER, MILLER & ASSOCIATES



Austin Weyant
Project Scientist

Reviewed by:

Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map
Figure 2: Site and Sample Location Map

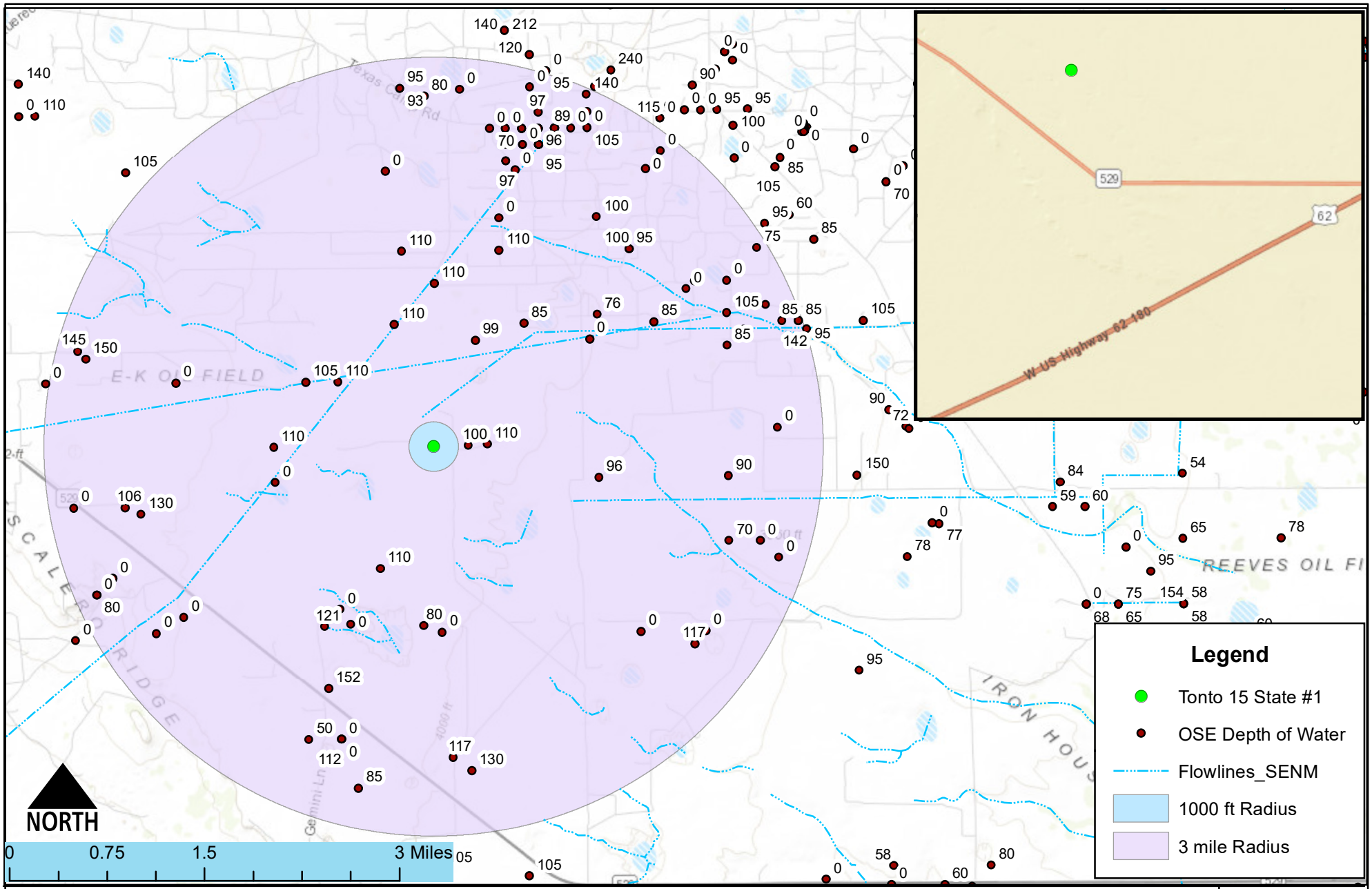
Tables:

Table 3: Summary of Sample Results

Appendices:

Appendix A: Form C141 Initial
Appendix B: NMOSE Wells Report
Appendix C: Laboratory Analytical Reports

FIGURE 1
VICINITY AND NMOSE DATA MAP



Vicinity and Well Head Protection Map
Tonto 15 State #1 - Marathon
S15-T18S-R34E, New Mexico

Figure 1

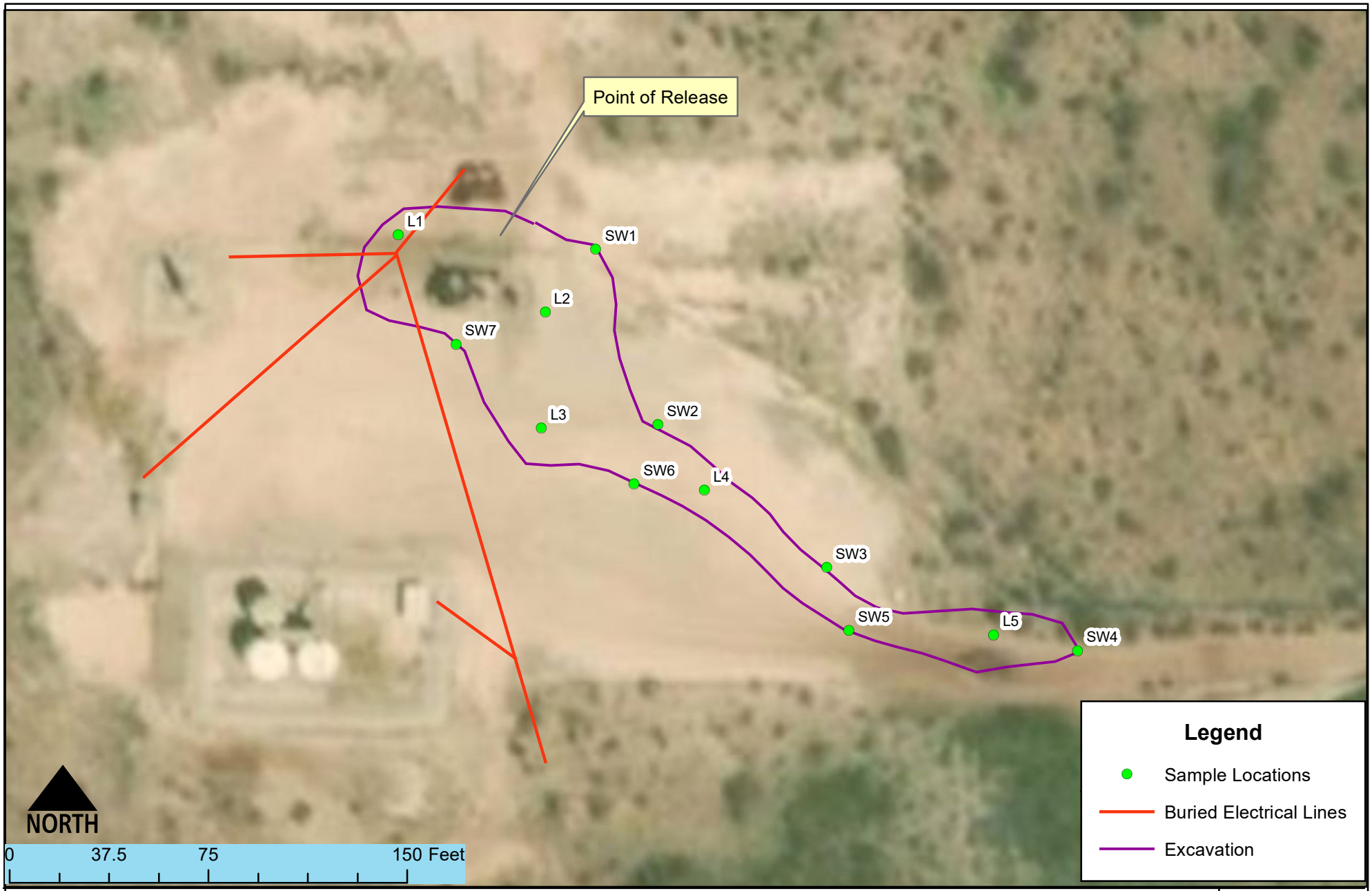
Date Saved: 5/14/2018

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

Drawn Heather Patterson
Checked
Approved

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

FIGURE 2
SITE AND SAMPLE
LOCATION MAP



Site and Sample Location Map
Tonto 15 State #1 - Marathon
S15-T18S-R34E, New Mexico

Figure 2

Date Saved: 7/10/2018

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

Drawn Heather Patterson
Checked
Approved

SMA
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TABLE 3
SUMMARY SAMPLE RESULTS

Tonto 15 State #1

Table 3.

Sample Number on Figure 2	Sample Date	Depth (feet bgs)	Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	**Total TPH** mg/Kg	Cl- Laboratory mg/Kg
NMOCD RRAL's for Site Ranking 0				50 mg/Kg	10 mg/Kg				5000 mg/Kg	600
L1	4/26/2018	0.5	in-situ	**141**	<0.49	970	23000	9300	**33270**	**920**
	5/17/2018	2.5	in-situ	<0.23	<0.025	<5.0	45	55	100	490
L2	4/26/2018	0.5	excavated	49.9	<0.46	480	17000	7900	**25380**	210
	5/17/2018	1	excavated	<0.23	<0.023	<4.7	66	53	119	**860**
	6/7/2018	1.5	excavated	--	--	<4.8	500	420	920	**770**
	6/20/2018	1.75	in-situ	--	--	<4.7	12	<47	12	120
L3	4/26/2018	0.5	excavated	**120**	<0.50	970	17,000	6,200	**24,170**	250
	5/17/2018	1	excavated	0.5	<0.024	9.8	2000	1200	3209.8	**2100**
	6/7/2018	1.5	excavated	--	--	5.2	680	640	1325.2	**1900**
	6/20/2018	1.75	in-situ	--	--	<4.6	180	<48	180	160
L4	4/26/2018	0.5	excavated	**147**	<0.48	1400	17000	5900	**24300**	300
	5/17/2018	1	in-situ	<0.23	<0.025	<5.0	23	<50	23	530
L5	4/26/2018	1	excavated	2.75	<0.12	31	6100	3800	**9931**	**920**
	5/17/2018	1.5	excavated	<0.23	<0.024	<4.8	690	470	1160	**1200**
	5/17/2018	2	in-situ	<0.23	<0.024	<4.9	22	<50	22	250
SW1	6/7/2018	sidewall	in-situ	--	--	<4.8	60	61	121	180
SW2	6/7/2018	sidewall	in-situ	--	--	<4.7	110	210	320	610
SW3	6/7/2018	sidewall	in-situ	--	--	<4.8	<9.9	<50	<65	480
SW4	6/7/2018	sidewall	in-situ	--	--	<4.9	550	390	940	57
SW5	6/7/2018	sidewall	in-situ	--	--	<4.7	160	350	510	120
SW6	6/7/2018	sidewall	excavated	--	--	<4.8	35	60	95	**1200**
	6/20/2018	sidewall	in-situ	--	--	--	--	--	--	550
SW7	6/7/2018	sidewall	in-situ	--	--	<4.8	20	<47	20	380
SP	4/26/2018	comp	hauled	13.1	<0.12	94	7400	5300	**12794**	**1500**

"--" = Not Analyzed

APPENDIX A
FORM C141 INITIAL

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Marathon Oil Permian LLC	Contact Raquel Chacon
Address 5555 San Felipe Street, Houston, Texas 77056	Telephone No. 281-910-0441 (cell) 575-297-0988 (office)
Facility Name: Tonto 15 State #1	Facility Type Oil and gas production facilities

Surface: Owner: State of NM	Mineral: Owner: State of NM	API No. :30-025-28897

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	15	18S	34E	1980	South	900	East	Lea

Latitude 32.745796 **Longitude** -103.542489

NATURE OF RELEASE

Type of Release : Oil	Volume of Release : 23 bbls	Volume Recovered : 12 bbls
Source of Release: stuffing box	Date and Hour of Occurrence 10/29/2017 approximately 8:00 am	Date and Hour of Discovery 10/29/2017 4:30 pm
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
Not applicable.

RECEIVED
By Olivia Yu at 3:22 pm, Nov 15, 2017

Describe Cause of Problem and Remedial Action Taken.*
The valve at the wellhead was found to be shut by an unknown source. The well was still active and resulted in a release at the stuffing box. The pumping unit was shut in immediately until the cause was discovered. A vacuum truck was called out to recover any standing fluid. The stuffing box was repacked, and the unit was put back on-line.

Describe Area Affected and Cleanup Action Taken.*
The area affected was on the well pad and access road. The area on the well pad was 144' wide by 4' long and the area on the road was 16' wide and 48' long. An 811 call was placed immediately in order for a backhoe to remove contaminants in order to prevent further impact to soils or tracking with vehicles. Soil samples will be submitted to a laboratory when removal is complete for BTEX, TPH, and Cl to show corrective actions were effective.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Raquel Chacon	OIL CONSERVATION DIVISION	
Printed Name: Raquel Chacon	Approved by Environmental Specialist:	
Title: HES Environmental Professional	Approval Date: 11/15/2017 Expiration Date:	
E-mail Address: rchacon@marathonoil.com	Conditions of Approval:	Attached ☐
Date: 11/2/2017 Phone: 281-910-0441(cell) 575-297-0988 (office)	see attached directive	

* Attach Additional Sheets If Necessary

1RP-4869 nOY1731955602 pOY1731959593

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _11/6/2017_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4869__ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _12/15/2017_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

● Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

●Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

● If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

● Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Marathon Oil Permian LLC	Contact Callie Karrigan
Address 5555 San Felipe Street, Houston, Texas 77056	Telephone No. 405-202-1028 (cell) 575-297-0956 (office)
Facility Name: Tonto 15 State #1	Facility Type Oil and gas production facilities

Surface: Owner: State	Mineral: Owner: State	API No. :30-025-28897

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	15	18S	34E	1980	South	900	East	Lea

Latitude 32.746234 **Longitude** 32.7459831,-103.5429764

NATURE OF RELEASE

Type of Release : Oil	Volume of Release : 6.32 barrels	Volume Recovered : 5.30 barrels
Source of Release: stuffing box	Date and Hour of Occurrence 3/14/18 unknown	Date and Hour of Discovery 3/14/18 01:15 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Olivia Yu	
By Whom? Callie Karrigan	Date and Hour 03/15/18 11:15 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
Not applicable.

RECEIVED
By Olivia Yu at 1:31 pm, Apr 02, 2018

Describe Cause of Problem and Remedial Action Taken.*
While conducting daily rounds, Operator arrived onsite and observed standing fluids around the perimeter of the wellhead. Upon investigation, it was found the stuffing box had released and misted approximately 6.32 barrels onsite around the wellhead.

Describe Area Affected and Cleanup Action Taken.*

Misting affected a 55x3 are and a 30x30 area. A vac truck was dispatched to recover standing fluids. Contaminated soils will be removed and disposed at R360. Confirmation samples will be taken and the affected area will be backfilled. In addition, the wellhead and equipment will also be washed and wiped down.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: *Callie Karrigan*	OIL CONSERVATION DIVISION	
Printed Name: Callie Karrigan	Approved by Environmental Specialist:	
Title: HES Professional	Approval Date: 4/2/2018	Expiration Date:
E-mail Address: cnkarrigan@marathonoil.com	Conditions of Approval: see attached directive	Attached ☑
Date: 03/28/18 Phone: 405-202-1028(cell) 575-297-0956(office)		

* Attach Additional Sheets If Necessary

1RP-5003 nOY1809249211

pOY1809249756

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _3/28/2018_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-5003__ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

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The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

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● Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

●Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

● If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

● Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

APPENDIX B
NMOSE WELLS REPORT

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

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 04531		L	LE		1	3	14	18S	34E	637016	3624067*	512	125	100	25
L 09775		L	LE	1	2	3	14	18S	34E	637249	3624084	744	183	110	73
L 05881		L	LE		1	1	15	18S	34E	635395	3624846*	1355	230	110	120
L 01613 S2		L	LE	2	3	3	11	18S	34E	637095	3625374*	1435	220	99	121
L 05876		L	LE	3	1	4	10	18S	34E	636085	3625563*	1554	230	110	120
L 05374		L	LE		2	2	16	18S	34E	634994	3624840*	1696	192	105	87
L 05882		L	LE		1	4	16	18S	34E	634605	3624030*	1899	230	110	120
L 01613		L	LE	3	1	4	11	18S	34E	637696	3625589*	1933	211	85	126
L 13211 POD1		L	LE	4	3	4	16	18S	34E	634629	3623592	1934	140		
L 05875		L	LE		4	2	10	18S	34E	636581	3626073*	2008	230	110	120
L 09767		L	LE		3	3	13	18S	34E	638636	3623688*	2165	182	96	86
L 03765 POD4		L	LE	2	1	2	27	18S	34E	636475	3621831	2235	180	80	100
L 09750		L	LE		3	3	22	18S	34E	635440	3622029*	2298	200		
L 05574	R	L	LE	1	3	3	12	18S	34E	638509	3625399*	2407			
L 05355		L	LE		1	2	10	18S	34E	636173	3626469*	2425	186	110	76
L 02499 POD3		L	LE	1	1	1	27	18S	34E	635252	3621814	2576	180	121	59
L 05885		L	LE		2	1	11	18S	34E	637380	3626489*	2576	230	110	120
L 05079		L	LE		1	3	12	18S	34E	638604	3625702*	2662	159	76	83
L 02722 S3		L	LE		4	3	02	18S	34E	637374	3626892*	2956			
L 13634 POD1		L	LE	3	3	1	27	18S	34E	635352	3621122	3160	182	152	30
L 01614		L	LE	3	1	4	12	18S	34E	639305	3625618*	3202	204	85	119
L 05139		L	LE		2	1	12	18S	34E	638992	3626517*	3492	150	95	55
L 07361		L	LE		2	1	12	18S	34E	638992	3626517*	3492	202	100	102
L 04160		L	LE		3	3	01	18S	34E	638585	3626911*	3524	165	100	65
L 09752		L	LE	3	1	2	20	18S	34E	632968	3623188	3643	179	130	49
L 05788 POD10		L	LE	4	4	1	02	18S	34E	637459	3627596*	3656	240	100	140

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

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 05788 POD17	L	LE	4	4	1	02	18S	34E	637459	3627596*	3656	240	97	143
L 13563 POD1	L	LE	4	4	4	20	18S	34E	633506	3621920	3686	200		
L 03721	L	LE		3	3	18	18S	35E	640241	3623717*	3753	161	90	71
L 10236	L	LE		3	3	27	18S	34E	635466	3620420*	3790			
L 10344 POD2	L	LE		3	3	27	18S	34E	635466	3620420*	3790	142	112	30
L 13526 POD1	L	LE	2	2	1	20	18S	34E	632769	3623271	3818	196	106	90
L 05788 POD19	L	LE	2	4	1	02	18S	34E	637459	3627796*	3850	240	98	142
L 12633 POD1	L	LE	2	2	2	34	18S	34E	636852	3620203	3877	180	117	63
L 04851	L	LE		4	2	12	18S	34E	639801	3626130*	3889	155	95	60
L 05788 POD20	L	LE	1	3	2	02	18S	34E	637662	3627802*	3911	240	96	144
L 05788 POD7	L	LE	1	3	2	02	18S	34E	637662	3627802*	3911	240		
L 05172	L	LE		3	3	07	18S	35E	640214	3625331*	3919	161	85	76
L 03888	L	LE		3	1	19	18S	35E	640253	3622912*	3922	107	70	37
L 10202	L	LE		4	4	28	18S	34E	635065	3620414*	3925	70	50	20
L 05788 POD11	L	LE	2	3	2	02	18S	34E	637862	3627802*	3975	240	95	145
L 05788 POD16	L	LE	2	3	2	02	18S	34E	637862	3627802*	3975	240	96	144
L 05788 POD6	L	LE	2	3	2	02	18S	34E	637862	3627802*	3975	240	94	146
L 05788 POD9	L	LE	2	3	2	02	18S	34E	637862	3627802*	3975	250	95	155
L 05788 POD15	L	LE	4	2	1	02	18S	34E	637451	3627998*	4044	240		
L 05788 POD4	L	LE	4	2	1	02	18S	34E	637451	3627998*	4044	240	98	142
L 04931 X	L	LE		1	3	07	18S	35E	640208	3625735*	4062	212	105	107
L 09576	L	LE		1	1	35	18S	34E	637082	3620041*	4066	180	130	50
CP 01582 POD1	CP	LE	2	1	2	29	18S	34E	633167	3621715	4081	180	180	0
L 02722 S	L	LE	3	1	2	02	18S	34E	637654	3628004*	4102	236	70	166
L 05788 POD14	L	LE	3	1	2	02	18S	34E	637654	3628004*	4102	240	97	143
L 05788 POD18	L	LE	3	1	2	02	18S	34E	637654	3628004*	4102	240	97	143
L 05788 POD21	L	LE	3	1	2	02	18S	34E	637654	3628004*	4102	240	96	144
L 12926 POD1	L	LE	2	2	3	25	18S	34E	639839	3621631	4129	182	117	65
L 05788	L	LE	4	1	2	02	18S	34E	637854	3628004*	4162	230	97	133

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

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number		POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 05788 POD12		L	LE	4	1	2	02	18S	34E	637854	3628004*	4162	240	94	146
L 05788 POD13		L	LE	4	1	2	02	18S	34E	637854	3628004*	4162	240	95	145
L 04906		L	LE			3	07	18S	35E	640415	3625532*	4176	155	87	68
L 10345 POD2		L	LE		2	3	20	18S	34E	632620	3622393*	4228	130	120	10
L 02722 S2		L	LE	3	2	2	02	18S	34E	638057	3628011*	4239	228	89	139
L 05788 POD2		L	LE	3	2	2	02	18S	34E	638057	3628011*	4239	240	98	142
L 05788 POD5		L	LE	3	2	2	02	18S	34E	638057	3628011*	4239	240	94	146
L 05788 POD8		L	LE	3	2	2	02	18S	34E	638057	3628011*	4239	240	95	145
L 07928		L	LE	4	4	1	19	18S	35E	640639	3622915	4292	175		
L 05788 POD22		L	LE	4	2	2	02	18S	34E	638257	3628011*	4316			
L 08100		L	LE	3	4	4	34	17S	34E	636439	3628393*	4327	135	80	55
L 05851		L	LE			1	34	18S	34E	635681	3619816*	4329	240	85	155
L 05788 POD3		L	LE	2	1	2	02	18S	34E	637854	3628204*	4352	240	97	143
L 04953		L	LE	4	3	3	08	18S	34E	632269	3625104*	4360	200	150	50
L 06031		L	LE		2	2	02	18S	34E	638158	3628112*	4370	230	102	128
L 02722		L	LE	3	1	1	01	18S	34E	638460	3628017*	4408	229	105	124
L 02724 S3		L	LE		3	4	34	17S	34E	636137	3628487*	4436	210	95	115
L 05883		L	LE		3	4	34	17S	34E	636137	3628487*	4436	244	93	151
L 10040		L	LE		3	3	08	18S	34E	632170	3625205*	4481	215	145	70
L 10346		L	LE			3	20	18S	34E	632425	3622187*	4490	130		
L 10436		L	LE			3	20	18S	34E	632425	3622187*	4490	120	80	40
L 04975		L	LE	2	2	3	07	18S	35E	640688	3625837*	4543	152	105	47
L 06115		L	LE	1	1	1	01	18S	34E	638460	3628217*	4588	230	110	120
L 02349	R	L	LE	3	1	4	07	18S	35E	640891	3625641*	4661	207	85	122
L 06029		L	LE		4	4	35	17S	34E	638150	3628523*	4751	230	102	128
L 04778		L	LE		2	1	07	18S	35E	640575	3626545*	4766	150	75	75
L 02724 S4		L	LE	3	3	3	36	17S	34E	638451	3628429*	4777	230	140	90
L 02349 POD2		L	LE	4	1	4	07	18S	35E	641091	3625641*	4849	214	85	129
L 02349 POD3		L	LE	4	1	4	07	18S	35E	641091	3625641	4849	220	142	78

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin	Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 05842	L		LE			4	35	17S	34E	637948	3628716*	4868	240	95	145
L 06030	L		LE		3	3	36	17S	34E	638552	3628530*	4911	230	102	128
L 04794	L		LE			4	07	18S	35E	641200	3625540*	4921	150	95	55
L 10467	L		LE		1	2	01	18S	34E	639365	3628137*	4975	231	115	116

Average Depth to Water: **101 feet**

Minimum Depth: **50 feet**

Maximum Depth: **180 feet**

Record Count: 88

UTMNAD83 Radius Search (in meters):

Easting (X): 636503.91 **Northing (Y):** 3624066.14 **Radius:** 5000

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

APPENDIX C

LABORATORY ANALYTICAL REPORTS

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

May 10, 2018

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

RE: Tonto OrderNo.: 1805017

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 6 sample(s) on 5/1/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-3"
Project: Tonto
Collection Date: 4/26/2018 2:43:00 PM
Lab ID: 1805017-001 **Matrix:** SOIL **Received Date:** 5/1/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	920	30		mg/Kg	20	5/7/2018 1:43:15 PM	37967
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	23000	1000		mg/Kg	100	5/4/2018 2:40:42 AM	37916
Motor Oil Range Organics (MRO)	9300	5000		mg/Kg	100	5/4/2018 2:40:42 AM	37916
Surr: DNOP	0	70-130	S	%Rec	100	5/4/2018 2:40:42 AM	37916
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	970	97		mg/Kg	20	5/3/2018 12:15:25 PM	37890
Surr: BFB	478	15-316	S	%Rec	20	5/3/2018 12:15:25 PM	37890
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	1.9		mg/Kg	20	5/3/2018 12:15:25 PM	37890
Benzene	ND	0.49		mg/Kg	20	5/3/2018 12:15:25 PM	37890
Toluene	19	0.97		mg/Kg	20	5/3/2018 12:15:25 PM	37890
Ethylbenzene	48	0.97		mg/Kg	20	5/3/2018 12:15:25 PM	37890
Xylenes, Total	74	1.9		mg/Kg	20	5/3/2018 12:15:25 PM	37890
Surr: 4-Bromofluorobenzene	197	80-120	S	%Rec	20	5/3/2018 12:15:25 PM	37890

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-3"
Project: Tonto
Collection Date: 4/26/2018 2:38:00 PM
Lab ID: 1805017-002
Matrix: SOIL
Received Date: 5/1/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	210	30		mg/Kg	20	5/7/2018 1:55:39 PM	37967
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	17000	940		mg/Kg	100	5/4/2018 3:27:39 AM	37916
Motor Oil Range Organics (MRO)	7900	4700		mg/Kg	100	5/4/2018 3:27:39 AM	37916
Surr: DNOP	0	70-130	S	%Rec	100	5/4/2018 3:27:39 AM	37916
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	480	92		mg/Kg	20	5/3/2018 1:02:06 PM	37890
Surr: BFB	314	15-316		%Rec	20	5/3/2018 1:02:06 PM	37890
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	1.8		mg/Kg	20	5/3/2018 1:02:06 PM	37890
Benzene	ND	0.46		mg/Kg	20	5/3/2018 1:02:06 PM	37890
Toluene	4.9	0.92		mg/Kg	20	5/3/2018 1:02:06 PM	37890
Ethylbenzene	16	0.92		mg/Kg	20	5/3/2018 1:02:06 PM	37890
Xylenes, Total	29	1.8		mg/Kg	20	5/3/2018 1:02:06 PM	37890
Surr: 4-Bromofluorobenzene	148	80-120	S	%Rec	20	5/3/2018 1:02:06 PM	37890

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-3"
Project: Tonto
Collection Date: 4/26/2018 2:30:00 PM
Lab ID: 1805017-003
Matrix: SOIL
Received Date: 5/1/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	250	30		mg/Kg	20	5/7/2018 2:32:54 PM	37967
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	17000	960		mg/Kg	100	5/4/2018 4:14:34 AM	37916
Motor Oil Range Organics (MRO)	6200	4800		mg/Kg	100	5/4/2018 4:14:34 AM	37916
Surr: DNOP	0	70-130	S	%Rec	100	5/4/2018 4:14:34 AM	37916
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	970	99		mg/Kg	20	5/3/2018 1:49:06 PM	37890
Surr: BFB	495	15-316	S	%Rec	20	5/3/2018 1:49:06 PM	37890
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	2.0		mg/Kg	20	5/3/2018 1:49:06 PM	37890
Benzene	ND	0.50		mg/Kg	20	5/3/2018 1:49:06 PM	37890
Toluene	14	0.99		mg/Kg	20	5/3/2018 1:49:06 PM	37890
Ethylbenzene	41	0.99		mg/Kg	20	5/3/2018 1:49:06 PM	37890
Xylenes, Total	65	2.0		mg/Kg	20	5/3/2018 1:49:06 PM	37890
Surr: 4-Bromofluorobenzene	192	80-120	S	%Rec	20	5/3/2018 1:49:06 PM	37890

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-3"
Project: Tonto
Collection Date: 4/26/2018 2:23:00 PM
Lab ID: 1805017-004 **Matrix:** SOIL **Received Date:** 5/1/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	300	30		mg/Kg	20	5/7/2018 2:45:18 PM	37967
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	17000	990		mg/Kg	100	5/4/2018 5:01:31 AM	37916
Motor Oil Range Organics (MRO)	5900	5000		mg/Kg	100	5/4/2018 5:01:31 AM	37916
Surr: DNOP	0	70-130	S	%Rec	100	5/4/2018 5:01:31 AM	37916
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	1400	97		mg/Kg	20	5/4/2018 1:19:53 PM	37890
Surr: BFB	684	15-316	S	%Rec	20	5/4/2018 1:19:53 PM	37890
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	1.9		mg/Kg	20	5/3/2018 5:44:20 PM	37890
Benzene	ND	0.48		mg/Kg	20	5/3/2018 5:44:20 PM	37890
Toluene	15	0.97		mg/Kg	20	5/3/2018 5:44:20 PM	37890
Ethylbenzene	51	0.97		mg/Kg	20	5/3/2018 5:44:20 PM	37890
Xylenes, Total	81	1.9		mg/Kg	20	5/3/2018 5:44:20 PM	37890
Surr: 4-Bromofluorobenzene	220	80-120	S	%Rec	20	5/3/2018 5:44:20 PM	37890

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-1
Project: Tonto
Collection Date: 4/26/2018 2:56:00 PM
Lab ID: 1805017-005
Matrix: SOIL
Received Date: 5/1/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	920	30		mg/Kg	20	5/7/2018 3:22:33 PM	37967
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	6100	98		mg/Kg	10	5/5/2018 12:12:43 AM	37916
Motor Oil Range Organics (MRO)	3800	490		mg/Kg	10	5/5/2018 12:12:43 AM	37916
Surr: DNOP	0	70-130	S	%Rec	10	5/5/2018 12:12:43 AM	37916
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	31	25		mg/Kg	5	5/4/2018 2:06:30 PM	37890
Surr: BFB	129	15-316		%Rec	5	5/4/2018 2:06:30 PM	37890
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.49		mg/Kg	5	5/3/2018 6:31:19 PM	37890
Benzene	ND	0.12		mg/Kg	5	5/3/2018 6:31:19 PM	37890
Toluene	0.49	0.25		mg/Kg	5	5/3/2018 6:31:19 PM	37890
Ethylbenzene	0.86	0.25		mg/Kg	5	5/3/2018 6:31:19 PM	37890
Xylenes, Total	1.4	0.49		mg/Kg	5	5/3/2018 6:31:19 PM	37890
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	5/3/2018 6:31:19 PM	37890

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SP
Project: Tonto
Collection Date: 4/26/2018 2:47:00 PM
Lab ID: 1805017-006
Matrix: SOIL
Received Date: 5/1/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	1500	75		mg/Kg	50	5/8/2018 11:55:09 PM	37967
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	7400	96		mg/Kg	10	5/5/2018 12:56:40 AM	37916
Motor Oil Range Organics (MRO)	5300	480		mg/Kg	10	5/5/2018 12:56:40 AM	37916
Surr: DNOP	0	70-130	S	%Rec	10	5/5/2018 12:56:40 AM	37916
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	94	23		mg/Kg	5	5/4/2018 2:53:24 PM	37890
Surr: BFB	207	15-316		%Rec	5	5/4/2018 2:53:24 PM	37890
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.47		mg/Kg	5	5/3/2018 6:54:47 PM	37890
Benzene	ND	0.12		mg/Kg	5	5/3/2018 6:54:47 PM	37890
Toluene	2.5	0.23		mg/Kg	5	5/3/2018 6:54:47 PM	37890
Ethylbenzene	4.2	0.23		mg/Kg	5	5/3/2018 6:54:47 PM	37890
Xylenes, Total	6.4	0.47		mg/Kg	5	5/3/2018 6:54:47 PM	37890
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	5	5/3/2018 6:54:47 PM	37890

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805017**

10-May-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID	**MB-37967**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**37967**	RunNo:	**51083**					
Prep Date:	**5/7/2018**	Analysis Date:	**5/7/2018**	SeqNo:	**1659638**	Units:	**mg/Kg**			

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

Sample ID	**LCS-37967**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**37967**	RunNo:	**51083**					
Prep Date:	**5/7/2018**	Analysis Date:	**5/7/2018**	SeqNo:	**1659639**	Units:	**mg/Kg**			

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805017**

10-May-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID	**LCS-37916**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**37916**		RunNo:	**51013**				
Prep Date:	**5/2/2018**	Analysis Date:	**5/3/2018**		SeqNo:	**1657153**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	82.6	70	130			
Surr: DNOP	3.5		5.000		70.7	70	130			

Sample ID	**MB-37916**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**37916**		RunNo:	**51013**				
Prep Date:	**5/2/2018**	Analysis Date:	**5/3/2018**		SeqNo:	**1657154**	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	7.8		10.00		78.3	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805017**

10-May-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID	**MB-37890**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**
Client ID:	**PBS**	Batch ID:	**37890**	RunNo:	**50982**
Prep Date:	**5/1/2018**	Analysis Date:	**5/2/2018**	SeqNo:	**1655670** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.2	15	316			

Sample ID	**LCS-37890**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**
Client ID:	**LCSS**	Batch ID:	**37890**	RunNo:	**50982**
Prep Date:	**5/1/2018**	Analysis Date:	**5/2/2018**	SeqNo:	**1655671** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	75.9	131			
Surr: BFB	1000		1000		102	15	316			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805017**

10-May-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID **MB-37890**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **37890**	RunNo: **50982**
Prep Date: **5/1/2018**	Analysis Date: **5/2/2018**	SeqNo: **1655710** Units: **mg/Kg**

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

Sample ID **LCS-37890**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **37890**	RunNo: **50982**
Prep Date: **5/1/2018**	Analysis Date: **5/2/2018**	SeqNo: **1655711** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.96	0.10	1.000	0	95.5	70.1	121			
Benzene	0.98	0.025	1.000	0	97.9	77.3	128			
Toluene	0.99	0.050	1.000	0	99.4	79.2	125			
Ethylbenzene	0.99	0.050	1.000	0	99.2	80.7	127			
Xylenes, Total	3.1	0.10	3.000	0	102	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: SMA-CARLSBAD Work Order Number: 1805017 RcptNo: 1

Received By: Isaiah Ortiz 5/1/2018 9:15:00 AM IG

Completed By: Ashley Gallegos 5/1/2018 11:44:20 AM AG

Reviewed By: ENM 5/1/18 Labeled by: JMC

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: 5/1

(<2 or >12 unless noted)

Adjusted? AT

Checked by:

Special Handling (if applicable)

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

Person Notified: Date

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

Regarding:

Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.8	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

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

Project Name: Bonito

Project #:

Project Manager: Austyn Weyant

Sampler: Heath Patterson

On Ice: ☒ Yes ☐ No

Sample Temperature: 0.8

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1805017	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F^-,Cl^-,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
4/26/18	2:43	Soil	L1-3"	4oz	✓	-001	X		X					X				
	2:38		L2-3"			-002	X		X					X				
	2:30		L3-3"			-003	X		X					X				
	2:23		L4-3"			-004	X		X					X				
	2:56		L5-1			-005	X		X					X				
	2:47		SP			-006	X		X					X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/27/18	0830			4/30/18	0830
4/30/18	1900		courier	5/1/18	915

Remarks: Marathon

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

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

June 01, 2018

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

RE: Tonto 15-1 OrderNo.: 1805B66

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 6 sample(s) on 5/22/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-2.5
Project: Tonto 15-1
Collection Date: 5/17/2018 12:23:00 PM
Lab ID: 1805B66-001
Matrix: SOLID
Received Date: 5/22/2018 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	490	30		mg/Kg	20	5/25/2018 3:16:03 PM	38333
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	45	10		mg/Kg	1	5/24/2018 12:25:34 AM	38269
Motor Oil Range Organics (MRO)	55	51		mg/Kg	1	5/24/2018 12:25:34 AM	38269
Surr: DNOP	114	70-130		%Rec	1	5/24/2018 12:25:34 AM	38269
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/24/2018 1:30:37 AM	38263
Surr: BFB	89.5	15-316		%Rec	1	5/24/2018 1:30:37 AM	38263
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/24/2018 1:30:37 AM	38263
Toluene	ND	0.050		mg/Kg	1	5/24/2018 1:30:37 AM	38263
Ethylbenzene	ND	0.050		mg/Kg	1	5/24/2018 1:30:37 AM	38263
Xylenes, Total	ND	0.099		mg/Kg	1	5/24/2018 1:30:37 AM	38263
Surr: 4-Bromofluorobenzene	99.7	80-120		%Rec	1	5/24/2018 1:30:37 AM	38263

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-1
Project: Tonto 15-1
Collection Date: 5/17/2018 12:36:00 PM
Lab ID: 1805B66-002
Matrix: SOIL
Received Date: 5/22/2018 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	860	30		mg/Kg	20	5/25/2018 3:28:28 PM	38333
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	66	9.9		mg/Kg	1	5/24/2018 12:49:38 AM	38269
Motor Oil Range Organics (MRO)	53	50		mg/Kg	1	5/24/2018 12:49:38 AM	38269
Surr: DNOP	108	70-130		%Rec	1	5/24/2018 12:49:38 AM	38269
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/24/2018 1:54:09 AM	38263
Surr: BFB	91.2	15-316		%Rec	1	5/24/2018 1:54:09 AM	38263
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	5/24/2018 1:54:09 AM	38263
Toluene	ND	0.047		mg/Kg	1	5/24/2018 1:54:09 AM	38263
Ethylbenzene	ND	0.047		mg/Kg	1	5/24/2018 1:54:09 AM	38263
Xylenes, Total	ND	0.094		mg/Kg	1	5/24/2018 1:54:09 AM	38263
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	5/24/2018 1:54:09 AM	38263

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-1
Project: Tonto 15-1
Collection Date: 5/17/2018 12:45:00 PM
Lab ID: 1805B66-003
Matrix: SOIL
Received Date: 5/22/2018 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2100	75		mg/Kg	50	5/29/2018 2:27:39 PM	38333
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	2000	99		mg/Kg	10	5/24/2018 1:13:50 AM	38269
Motor Oil Range Organics (MRO)	1200	500		mg/Kg	10	5/24/2018 1:13:50 AM	38269
Surr: DNOP	0	70-130	S	%Rec	10	5/24/2018 1:13:50 AM	38269
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	9.8	4.9		mg/Kg	1	5/24/2018 3:00:21 PM	38263
Surr: BFB	181	15-316		%Rec	1	5/24/2018 3:00:21 PM	38263
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/24/2018 3:00:21 PM	38263
Toluene	ND	0.049		mg/Kg	1	5/24/2018 3:00:21 PM	38263
Ethylbenzene	0.12	0.049		mg/Kg	1	5/24/2018 3:00:21 PM	38263
Xylenes, Total	0.38	0.097		mg/Kg	1	5/24/2018 3:00:21 PM	38263
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	5/24/2018 3:00:21 PM	38263

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-1
Project: Tonto 15-1
Collection Date: 5/17/2018 1:01:00 PM
Lab ID: 1805B66-004
Matrix: SOLID
Received Date: 5/22/2018 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	530	30		mg/Kg	20	5/25/2018 4:42:53 PM	38333
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	23	10		mg/Kg	1	5/24/2018 2:02:17 AM	38269
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/24/2018 2:02:17 AM	38269
Surr: DNOP	111	70-130		%Rec	1	5/24/2018 2:02:17 AM	38269
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/24/2018 2:41:07 AM	38263
Surr: BFB	90.4	15-316		%Rec	1	5/24/2018 2:41:07 AM	38263
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/24/2018 2:41:07 AM	38263
Toluene	ND	0.050		mg/Kg	1	5/24/2018 2:41:07 AM	38263
Ethylbenzene	ND	0.050		mg/Kg	1	5/24/2018 2:41:07 AM	38263
Xylenes, Total	ND	0.099		mg/Kg	1	5/24/2018 2:41:07 AM	38263
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	5/24/2018 2:41:07 AM	38263

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-2
Project: Tonto 15-1
Collection Date: 5/17/2018 1:18:00 PM
Lab ID: 1805B66-005 **Matrix:** SOLID **Received Date:** 5/22/2018 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	250	30		mg/Kg	20	5/29/2018 1:16:27 PM	38357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	22	10		mg/Kg	1	5/24/2018 2:26:28 AM	38269
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/24/2018 2:26:28 AM	38269
Surr: DNOP	105	70-130		%Rec	1	5/24/2018 2:26:28 AM	38269
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/24/2018 3:04:37 AM	38263
Surr: BFB	88.6	15-316		%Rec	1	5/24/2018 3:04:37 AM	38263
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/24/2018 3:04:37 AM	38263
Toluene	ND	0.049		mg/Kg	1	5/24/2018 3:04:37 AM	38263
Ethylbenzene	ND	0.049		mg/Kg	1	5/24/2018 3:04:37 AM	38263
Xylenes, Total	ND	0.097		mg/Kg	1	5/24/2018 3:04:37 AM	38263
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	1	5/24/2018 3:04:37 AM	38263

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-1
Project: Tonto 15-1
Collection Date: 5/17/2018 1:12:00 PM
Lab ID: 1805B66-006
Matrix: SOIL
Received Date: 5/22/2018 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1200	75		mg/Kg	50	5/29/2018 3:54:31 PM	38357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	690	10		mg/Kg	1	5/24/2018 2:20:30 PM	38269
Motor Oil Range Organics (MRO)	470	50		mg/Kg	1	5/24/2018 2:20:30 PM	38269
Surr: DNOP	126	70-130		%Rec	1	5/24/2018 2:20:30 PM	38269
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/24/2018 3:47:11 PM	38263
Surr: BFB	104	15-316		%Rec	1	5/24/2018 3:47:11 PM	38263
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/24/2018 3:47:11 PM	38263
Toluene	ND	0.048		mg/Kg	1	5/24/2018 3:47:11 PM	38263
Ethylbenzene	ND	0.048		mg/Kg	1	5/24/2018 3:47:11 PM	38263
Xylenes, Total	ND	0.096		mg/Kg	1	5/24/2018 3:47:11 PM	38263
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	5/24/2018 3:47:11 PM	38263

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805B66**

01-Jun-18

Client: Souder, Miller & Associates

Project: Tonto 15-1

Sample ID	**MB-38333**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**38333**	RunNo:	**51542**					
Prep Date:	**5/25/2018**	Analysis Date:	**5/25/2018**	SeqNo:	**1679970**	Units:	**mg/Kg**			

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

Sample ID	**LCS-38333**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**38333**	RunNo:	**51542**					
Prep Date:	**5/25/2018**	Analysis Date:	**5/25/2018**	SeqNo:	**1679971**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	90	110			

Sample ID	**MB-38357**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**38357**	RunNo:	**51572**					
Prep Date:	**5/29/2018**	Analysis Date:	**5/29/2018**	SeqNo:	**1682543**	Units:	**mg/Kg**			

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

Sample ID	**LCS-38357**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**38357**	RunNo:	**51572**					
Prep Date:	**5/29/2018**	Analysis Date:	**5/29/2018**	SeqNo:	**1682544**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805B66**

01-Jun-18

Client: Souder, Miller & Associates

Project: Tonto 15-1

Sample ID	**LCS-38269**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**38269**		RunNo:	**51394**				
Prep Date:	**5/22/2018**	Analysis Date:	**5/23/2018**		SeqNo:	**1676949**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.2	70	130			
Surr: DNOP	5.3		5.000		105	70	130			

Sample ID	**MB-38269**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**38269**		RunNo:	**51394**				
Prep Date:	**5/22/2018**	Analysis Date:	**5/23/2018**		SeqNo:	**1676950**	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	12		10.00		116	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805B66**

01-Jun-18

Client: Souder, Miller & Associates

Project: Tonto 15-1

Sample ID	**MB-38263**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**38263**		RunNo:	**51480**				
Prep Date:	**5/22/2018**	Analysis Date:	**5/23/2018**		SeqNo:	**1676698**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.4	15	316			

Sample ID	**LCS-38263**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**38263**		RunNo:	**51480**				
Prep Date:	**5/22/2018**	Analysis Date:	**5/23/2018**		SeqNo:	**1676699**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	114	75.9	131			
Surr: BFB	1000		1000		105	15	316			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805B66**

01-Jun-18

Client: Souder, Miller & Associates

Project: Tonto 15-1

Sample ID	**MB-38263**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**38263**	RunNo:	**51480**					
Prep Date:	**5/22/2018**	Analysis Date:	**5/23/2018**	SeqNo:	**1676739**	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		102	80	120			

Sample ID	**LCS-38263**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**38263**	RunNo:	**51480**					
Prep Date:	**5/22/2018**	Analysis Date:	**5/23/2018**	SeqNo:	**1676740**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.8	77.3	128			
Toluene	0.97	0.050	1.000	0	97.0	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	97.7	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: SMA-CARLSBAD Work Order Number: 1805B66 RcptNo: 1

Received By: Erin Melendrez 5/22/2018 10:05:00 AM

Completed By: Michelle Garcia 5/22/2018 11:00:13 AM Michelle Garcia

Reviewed By: IMO 5/22/18

LB; ENM

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: ____ (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? ____
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 ☐	Checked by: ____

ENM 5/22/18

Special Handling (if applicable)

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

Person Notified: ____ Date: ____

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

Regarding: ____

Client Instructions: ____

16. Additional remarks

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.8	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

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

Project Name: Dunn 15 1

Project #: Tunto

Project Manager: Austin Weyant

Sampler: Heaven Patterson

On Ice: ☑ Yes ☐ No

Sample Temperature: 4.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1805B64	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F^-, Cl^-, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
5/17/18	12:23	Rock	L1-2.5	Qt bag		001	X		X					X				
	12:36	Soil	L2-1	4oz		002	X		X					X				
	12:45	Soil	L3-1	4oz		003	X		X					X				
	1:01	Rock	L4-1	Qt bag		004	X		X					X				
	1:18	Rock	L5-2	Qt bag		005	X		X					X				
	1:12	Soil	L5-1	4oz		006	X		X					X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/21/18	0930			5/21/18	0930
5/21/18	1900		courier EUN 5/22/18	5/22/18	1005

Remarks: Marathon. Verified analysis & PO# w/ Austin. mg 5/22

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

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

June 22, 2018

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

RE: Tonto OrderNo.: 1806638

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 9 sample(s) on 6/12/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW1
Project: Tonto
Collection Date: 6/7/2018 1:05:00 PM
Lab ID: 1806638-001 **Matrix:** SOIL **Received Date:** 6/12/2018 9:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	180	30		mg/Kg	20	6/18/2018 4:31:03 PM	38725
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	60	10		mg/Kg	1	6/16/2018 5:02:56 AM	38667
Motor Oil Range Organics (MRO)	61	50		mg/Kg	1	6/16/2018 5:02:56 AM	38667
Surr: DNOP	115	70-130		%Rec	1	6/16/2018 5:02:56 AM	38667
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/13/2018 2:45:19 PM	38635
Surr: BFB	87.1	15-316		%Rec	1	6/13/2018 2:45:19 PM	38635

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW2
Project: Tonto
Collection Date: 6/7/2018 1:15:00 PM
Lab ID: 1806638-002 **Matrix:** SOIL **Received Date:** 6/12/2018 9:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	610	30		mg/Kg	20	6/18/2018 5:08:16 PM	38725
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	110	10		mg/Kg	1	6/16/2018 5:51:29 AM	38667
Motor Oil Range Organics (MRO)	210	50		mg/Kg	1	6/16/2018 5:51:29 AM	38667
Surr: DNOP	124	70-130		%Rec	1	6/16/2018 5:51:29 AM	38667
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/13/2018 3:08:57 PM	38635
Surr: BFB	80.7	15-316		%Rec	1	6/13/2018 3:08:57 PM	38635

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW3
Project: Tonto
Collection Date: 6/7/2018 1:20:00 PM
Lab ID: 1806638-003 **Matrix:** SOIL **Received Date:** 6/12/2018 9:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	480	30		mg/Kg	20	6/18/2018 6:47:34 PM	38733
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/15/2018 1:26:54 AM	38667
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/15/2018 1:26:54 AM	38667
Surr: DNOP	116	70-130		%Rec	1	6/15/2018 1:26:54 AM	38667
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/13/2018 3:32:39 PM	38635
Surr: BFB	79.9	15-316		%Rec	1	6/13/2018 3:32:39 PM	38635

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW4
Project: Tonto
Collection Date: 6/7/2018 1:25:00 PM
Lab ID: 1806638-004 **Matrix:** SOIL **Received Date:** 6/12/2018 9:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	57	30		mg/Kg	20	6/18/2018 6:59:58 PM	38733
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	550	9.3		mg/Kg	1	6/18/2018 5:05:12 PM	38685
Motor Oil Range Organics (MRO)	390	47		mg/Kg	1	6/18/2018 5:05:12 PM	38685
Surr: DNOP	108	70-130		%Rec	1	6/18/2018 5:05:12 PM	38685
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/14/2018 9:56:52 AM	38669
Surr: BFB	91.6	15-316		%Rec	1	6/14/2018 9:56:52 AM	38669

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW5
Project: Tonto
Collection Date: 6/7/2018 1:35:00 PM
Lab ID: 1806638-005 **Matrix:** SOIL **Received Date:** 6/12/2018 9:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	120	30		mg/Kg	20	6/18/2018 7:37:11 PM	38733
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	160	9.9		mg/Kg	1	6/18/2018 5:49:29 PM	38685
Motor Oil Range Organics (MRO)	350	49		mg/Kg	1	6/18/2018 5:49:29 PM	38685
Surr: DNOP	107	70-130		%Rec	1	6/18/2018 5:49:29 PM	38685
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/14/2018 12:17:20 PM	38669
Surr: BFB	88.5	15-316		%Rec	1	6/14/2018 12:17:20 PM	38669

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW6
Project: Tonto
Collection Date: 6/7/2018 1:40:00 PM
Lab ID: 1806638-006 **Matrix:** SOIL **Received Date:** 6/12/2018 9:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1200	75		mg/Kg	50	6/20/2018 5:28:55 AM	38733
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	35	9.6		mg/Kg	1	6/18/2018 6:34:24 PM	38685
Motor Oil Range Organics (MRO)	60	48		mg/Kg	1	6/18/2018 6:34:24 PM	38685
Surr: DNOP	85.0	70-130		%Rec	1	6/18/2018 6:34:24 PM	38685
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/14/2018 12:40:50 PM	38669
Surr: BFB	83.8	15-316		%Rec	1	6/14/2018 12:40:50 PM	38669

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW7
Project: Tonto
Collection Date: 6/7/2018 1:45:00 PM
Lab ID: 1806638-007 **Matrix:** SOIL **Received Date:** 6/12/2018 9:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	380	30		mg/Kg	20	6/18/2018 8:02:00 PM	38733
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	20	9.4		mg/Kg	1	6/18/2018 7:18:45 PM	38685
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/18/2018 7:18:45 PM	38685
Surr: DNOP	89.4	70-130		%Rec	1	6/18/2018 7:18:45 PM	38685
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/14/2018 1:04:21 PM	38669
Surr: BFB	85.3	15-316		%Rec	1	6/14/2018 1:04:21 PM	38669

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-1.5
Project: Tonto
Collection Date: 6/7/2018 2:00:00 PM
Lab ID: 1806638-008 **Matrix:** SOLID **Received Date:** 6/12/2018 9:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	770	30		mg/Kg	20	6/18/2018 8:14:25 PM	38733
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	500	9.4		mg/Kg	1	6/18/2018 8:03:06 PM	38685
Motor Oil Range Organics (MRO)	420	47		mg/Kg	1	6/18/2018 8:03:06 PM	38685
Surr: DNOP	85.1	70-130		%Rec	1	6/18/2018 8:03:06 PM	38685
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/14/2018 1:27:53 PM	38669
Surr: BFB	92.5	15-316		%Rec	1	6/14/2018 1:27:53 PM	38669

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-1.5
Project: Tonto
Collection Date: 6/7/2018 2:15:00 PM
Lab ID: 1806638-009
Matrix: SOLID
Received Date: 6/12/2018 9:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1900	75		mg/Kg	50	6/20/2018 6:06:09 AM	38733
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	680	9.7		mg/Kg	1	6/18/2018 8:47:31 PM	38685
Motor Oil Range Organics (MRO)	640	48		mg/Kg	1	6/18/2018 8:47:31 PM	38685
Surr: DNOP	94.9	70-130		%Rec	1	6/18/2018 8:47:31 PM	38685
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.2	4.9		mg/Kg	1	6/14/2018 1:51:29 PM	38669
Surr: BFB	142	15-316		%Rec	1	6/14/2018 1:51:29 PM	38669

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806638**

22-Jun-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID	**MB-38725**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**38725**	RunNo:	**52050**					
Prep Date:	**6/18/2018**	Analysis Date:	**6/18/2018**	SeqNo:	**1703853**	Units:	**mg/Kg**			

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

Sample ID	**LCS-38725**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**38725**	RunNo:	**52050**					
Prep Date:	**6/18/2018**	Analysis Date:	**6/18/2018**	SeqNo:	**1703854**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Sample ID	**MB-38733**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**38733**	RunNo:	**52050**					
Prep Date:	**6/18/2018**	Analysis Date:	**6/18/2018**	SeqNo:	**1703885**	Units:	**mg/Kg**			

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

Sample ID	**LCS-38733**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**38733**	RunNo:	**52050**					
Prep Date:	**6/18/2018**	Analysis Date:	**6/18/2018**	SeqNo:	**1703886**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806638**

22-Jun-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID **LCS-38667**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **38667**	RunNo: **51922**
Prep Date: **6/13/2018**	Analysis Date: **6/14/2018**	SeqNo: **1700099** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.2	70	130			
Surr: DNOP	4.9		5.000		97.7	70	130			

Sample ID **MB-38667**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **38667**	RunNo: **51922**
Prep Date: **6/13/2018**	Analysis Date: **6/14/2018**	SeqNo: **1700100** 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		108	70	130			

Sample ID **LCS-38685**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **38685**	RunNo: **52007**
Prep Date: **6/14/2018**	Analysis Date: **6/15/2018**	SeqNo: **1701649** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.4	70	130			
Surr: DNOP	4.9		5.000		98.4	70	130			

Sample ID **MB-38685**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **38685**	RunNo: **52007**
Prep Date: **6/14/2018**	Analysis Date: **6/15/2018**	SeqNo: **1701650** 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	9.9		10.00		99.1	70	130			

Sample ID **LCS-38702**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **38702**	RunNo: **52041**
Prep Date: **6/15/2018**	Analysis Date: **6/18/2018**	SeqNo: **1702706** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		95.4	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806638**

22-Jun-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID	**MB-38702**	SampType:	**MBLK**	TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID:	**38702**	RunNo:	**52041**					
Prep Date:	**6/15/2018**	Analysis Date:	**6/18/2018**	SeqNo:	**1702707**	Units:	**%Rec**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		102	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806638**

22-Jun-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID	**MB-38635**	SampType:	**MBLK**			TestCode:	**EPA Method 8015D: Gasoline Range**			
Client ID:	**PBS**	Batch ID:	**38635**			RunNo:	**51956**			
Prep Date:	**6/12/2018**	Analysis Date:	**6/13/2018**			SeqNo:	**1698126**	Units:	**mg/Kg**	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.8	15	316			

Sample ID	**LCS-38635**	SampType:	**LCS**			TestCode:	**EPA Method 8015D: Gasoline Range**			
Client ID:	**LCSS**	Batch ID:	**38635**			RunNo:	**51956**			
Prep Date:	**6/12/2018**	Analysis Date:	**6/13/2018**			SeqNo:	**1698127**	Units:	**mg/Kg**	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	75.9	131			
Surr: BFB	980		1000		97.6	15	316			

Sample ID	**MB-38669**	SampType:	**MBLK**			TestCode:	**EPA Method 8015D: Gasoline Range**			
Client ID:	**PBS**	Batch ID:	**38669**			RunNo:	**51984**			
Prep Date:	**6/13/2018**	Analysis Date:	**6/14/2018**			SeqNo:	**1700018**	Units:	**mg/Kg**	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	870		1000		86.8	15	316			

Sample ID	**LCS-38669**	SampType:	**LCS**			TestCode:	**EPA Method 8015D: Gasoline Range**			
Client ID:	**LCSS**	Batch ID:	**38669**			RunNo:	**51984**			
Prep Date:	**6/13/2018**	Analysis Date:	**6/14/2018**			SeqNo:	**1700019**	Units:	**mg/Kg**	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	75.9	131			
Surr: BFB	1000		1000		101	15	316			

Sample ID	**1806638-004AMS**	SampType:	**MS**			TestCode:	**EPA Method 8015D: Gasoline Range**			
Client ID:	**SW4**	Batch ID:	**38669**			RunNo:	**51984**			
Prep Date:	**6/13/2018**	Analysis Date:	**6/14/2018**			SeqNo:	**1700021**	Units:	**mg/Kg**	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	24.85	0	119	77.8	128			
Surr: BFB	1000		994.0		102	15	316			

Sample ID	**1806638-004AMSD**	SampType:	**MSD**			TestCode:	**EPA Method 8015D: Gasoline Range**			
Client ID:	**SW4**	Batch ID:	**38669**			RunNo:	**51984**			
Prep Date:	**6/13/2018**	Analysis Date:	**6/14/2018**			SeqNo:	**1700022**	Units:	**mg/Kg**	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806638**

22-Jun-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID	**1806638-004AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015D: Gasoline Range**
Client ID:	**SW4**	Batch ID:	**38669**	RunNo:	**51984**
Prep Date:	**6/13/2018**	Analysis Date:	**6/14/2018**	SeqNo:	**1700022** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	24.95	0	103	77.8	128	13.5	20	
Surr: BFB	1100		998.0		107	15	316	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: SMA-CARLSBAD Work Order Number: 1806638 RcptNo: 1

Received By: Erin Melendrez 6/12/2018 9:43:00 AM

Completed By: Erin Melendrez 6/12/2018 10:06:28 AM

Reviewed By: 06/12/18

LB: JB 06/12/18

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

06/12/18

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

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

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

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

Project Name: Tonto

Project #:

Project Manager: Austin Weyant

Sampler: Heather Patterson

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.1 + 1.0(CF) = 0.1

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1806038	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F^-, Cl^-, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
6/7/18	1:05	Soil	SW1	4oz Jar		-001			X					X				
	1:15		SW2			-002			X					X				
	1:20		SW3			-003			X					X				
	1:25		SW4			-004			X					X				
	1:35		SW5			-005			X					X				
	1:40		SW6			-006			X					X				
	1:45		SW7			-007			X					X				
	2:00	Rock	L2-1.5	Qt bag		-008			X					X				
	2:15	Rock	L3-1.5	Qt bag		-009			X					X				

Date: 6/11/18 Time: 1400 Relinquished by:

Received by: Date 6/11/18 Time 1412

Date: 6/11/18 Time: 1900 Relinquished by:

Received by: Date 6/11/18 Time 0943

Remarks: Marathon

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

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

July 03, 2018

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

RE: Tonto OrderNo.: 1806E47

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/23/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-1.8
Project: Tonto
Collection Date: 6/20/2018 9:00:00 AM
Lab ID: 1806E47-001 **Matrix:** SOLID **Received Date:** 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	120	30		mg/Kg	20	6/29/2018 5:40:20 PM	38971
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	12	9.4		mg/Kg	1	6/26/2018 6:05:49 PM	38862
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/26/2018 6:05:49 PM	38862
Surr: DNOP	83.5	70-130		%Rec	1	6/26/2018 6:05:49 PM	38862
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/26/2018 8:06:38 PM	38869
Surr: BFB	82.2	15-316		%Rec	1	6/26/2018 8:06:38 PM	38869

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-1.8
Project: Tonto
Collection Date: 6/20/2018 9:10:00 AM
Lab ID: 1806E47-002 **Matrix:** SOLID **Received Date:** 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	160	30		mg/Kg	20	6/29/2018 5:52:44 PM	38971
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	180	9.6		mg/Kg	1	6/26/2018 6:28:18 PM	38862
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/26/2018 6:28:18 PM	38862
Surr: DNOP	95.7	70-130		%Rec	1	6/26/2018 6:28:18 PM	38862
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/26/2018 8:30:18 PM	38869
Surr: BFB	81.5	15-316		%Rec	1	6/26/2018 8:30:18 PM	38869

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW6
Project: Tonto
Collection Date: 6/20/2018 9:20:00 AM
Lab ID: 1806E47-003
Matrix: SOIL
Received Date: 6/23/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	550	30		mg/Kg	20	6/29/2018 6:05:08 PM	38971

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806E47**

03-Jul-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID	**MB-38971**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**38971**	RunNo:	**52369**					
Prep Date:	**6/29/2018**	Analysis Date:	**6/29/2018**	SeqNo:	**1717233**	Units:	**mg/Kg**			

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

Sample ID	**LCS-38971**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**38971**	RunNo:	**52369**					
Prep Date:	**6/29/2018**	Analysis Date:	**6/29/2018**	SeqNo:	**1717234**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.2	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806E47**

03-Jul-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID	**LCS-38862**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**38862**		RunNo:	**52229**				
Prep Date:	**6/25/2018**	Analysis Date:	**6/26/2018**		SeqNo:	**1711929**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	82.7	70	130			
Surr: DNOP	4.2		5.000		83.9	70	130			

Sample ID	**MB-38862**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**38862**		RunNo:	**52229**				
Prep Date:	**6/25/2018**	Analysis Date:	**6/26/2018**		SeqNo:	**1711930**	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	9.3		10.00		93.1	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806E47**

03-Jul-18

Client: Souder, Miller & Associates

Project: Tonto

Sample ID	**MB-38869**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**38869**	RunNo:	**52243**					
Prep Date:	**6/25/2018**	Analysis Date:	**6/26/2018**	SeqNo:	**1712088**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.4	15	316			

Sample ID	**LCS-38869**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**38869**	RunNo:	**52243**					
Prep Date:	**6/25/2018**	Analysis Date:	**6/26/2018**	SeqNo:	**1712089**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.6	75.9	131			
Surr: BFB	980		1000		98.4	15	316			

Qualifiers:

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

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TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-CARLSBAD Work Order Number: 1806E47 RcptNo: 1

Received By: **Andy Freeman** 6/23/2018 10:40:00 AM

Completed By: **Isaiah Ortiz** 6/25/2018 7:38:58 AM

Reviewed By: ENM 6/25/18
LB:MW 6/25/18

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: ____ (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? MW 6/25/18
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 ☐	Checked by:

Special Handling (if applicable)

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

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

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.8	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

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

Project Name: Tonto

Project #:

Project Manager: Austin Weyant

Sampler: Heather Huff

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.8°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1806E47	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
6/22/18	9am	Rock	L2-1.8	Qt bag		-001			X					X				
	9:10	"	L3-1.8	"		-002			X					X				
	9:20	Soil	SW6	4oz jar		-003								X				

Date: 6/22/18 Time: 0910 Relinquished by:

Received by: Date 6/22/18 Time 0910

Date: 6-22-18 Time: 1920 Relinquished by:

Received by: Date 6/23/18 Time 1040

Remarks:

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