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

October 11, 2018

#5E26816-BG10

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

SUBJECT: Remediation and Closure Sampling Plan for the SST #3 Release (2RP-4843), Eddy County, New Mexico

Dear Ms. Maria Pruett:

On behalf of Matador Resources, Souder, Miller & Associates (SMA) has prepared this Remediation and Closure Sampling Plan that describes the delineation and proposed sampling plan for a release of liquids related to oil and gas production activities at the SST #3 site. The site is in Unit C, Section 6, Township 19S, Range 29E, Eddy County, New Mexico, on State of New Mexico land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1 summarizes release information and closure criteria.

Table 1: Release Information and Closure Criteria			
Name	SST #3	Company	Matador Resources
API Number	30-15-26457	Location	32.694937, -104.115848°
Incident Number	2RP-4843		
Estimated Date of Release	Unknown	Date Reported to NMOCD	7/2/18
Land Owner	State of New Mexico	Reported To	OCD, Mike Bratcher NMSLO, Ryan Mann
Source of Release	Illegal dump from a water truck		
Released Volume	Unknown	Released Material	Possible produced water
Recovered Volume	None	Net Release	Unknown
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	6/29 and 9/5/2018		

1.0 Background

On June 29, 2018, a release was discovered at the SST #3 site due to an illegal dump from a water truck. It appears that a water truck used access road and well pad to release water from the truck . Initial response activities were conducted by SMA, and included containment of pooled water areas and site stabilization activities. No free fluids were able to be recovered. Figure 1 illustrates the vicinity and site location, Figure 2 illustrates the release location. The final C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The SST #3 is located approximately 19.5 miles east of Artesia, New Mexico on State land. As summarized in Table 2 and illustrated in Figure 1, depth to groundwater in the area is estimated to be 167 feet below grade surface (bgs). There are no known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 9/27/2018). USGS wells within the area were used to determine the depth to ground water (wells ending in 4301,4701,3601 and 40301). The nearest surface water is Pecos River located approximately 10.6 Miles to the west.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of greater than 100 feet bgs. Unless a deferral has been approved by NMOCD per 19.15.29.12.B.(2), the site will be restored to meet the standards of Table I of 19.15.29.12 NMAC. Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

3.0 Release Characterization Activities and Findings

On June 29, 2018 and September 5, 2018 SMA personnel arrived on site in response to the release associated with the SST #3. SMA performed site delineation activities by collecting soil samples at the well pad (samples L1, L2 and L3), along the road where the release was visible (R1-R4), and at all areas of pooling observed off of the road (R1-R4). Soil samples were field-screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp.

A total of twelve sample locations were investigated using a hand-auger, to depths up to 3 feet bgs on the well pad, and one foot bgs along the road. A minimum of two samples were collected at each sampling location and field-screened using the methods above. A total of six samples from the well pad, and one background sample, were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Table 3 itemizes the samples and field-screening results as well as identifying any variances from the typical specification of two samples per boring. Locations for all samples are depicted on Figure 3a.

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

This release has two areas: along the road and on the well pad. Results for the road indicated that an area approximately 2,127 feet by 9 feet by 0.5 feet deep had been impacted. Results for the pad indicated

that an area approximately 222 feet by 32 feet by 2 feet deep had been impacted. All impacts are for chlorides, all TPH and BTEX compounds were below detection limits, or just above.

4.0 Soil Remediation Summary

On September 5, 2018, SMA guided the excavation of contaminated soil, based upon field screening results. After approval from area utilities via 811, SMA guided the excavation activities by collecting soil samples for field screening. Samples were screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp. The road and well pad were excavated until field screening results indicated that the NMOCD closure criteria would be met. The dimensions of the excavated areas are:

Well pad: 222 feet by 32 feet by 2 feet deep

Road: 2,127 feet by 9 feet by 0.5 feet deep

SMA is requesting an alternate sample plan per 19.15.29.12.D(1)(b) NMAC, as described in Section 5 below.

Figure 3a shows the extent of the excavation and sample locations. All field screening and laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

5.0 Closure Sampling Plan

The excavation of this site is has occurred and remains open. Laboratory results on the well pad, and field screening of the road and pooling area indicate that chloride is the only contaminant of concern, and are below 600 mg/Kg by one foot bgs in all locations except L2. No samples exceeded the Closure Criteria of 20,000 mg/Kg for this site.

SMA contacted the NMOCD District 2 by phone on 10/10/18. NMOCD and SMA agreed to add two more sample locations on the road. Also discussed was that SMA would sample all location on Figure 3a and send to a laboratory to be tested for all constitutes on Table 1 NMAC 19.15.29.

5.0 Scope and Limitations

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

Reviewed by:

Lucas C. Middleton
Staff Scientist

Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Regional Vicinity & Wellhead Protection Map
Figure 2: Surface Water Map
Figure 3a: Site and Sample Location Map

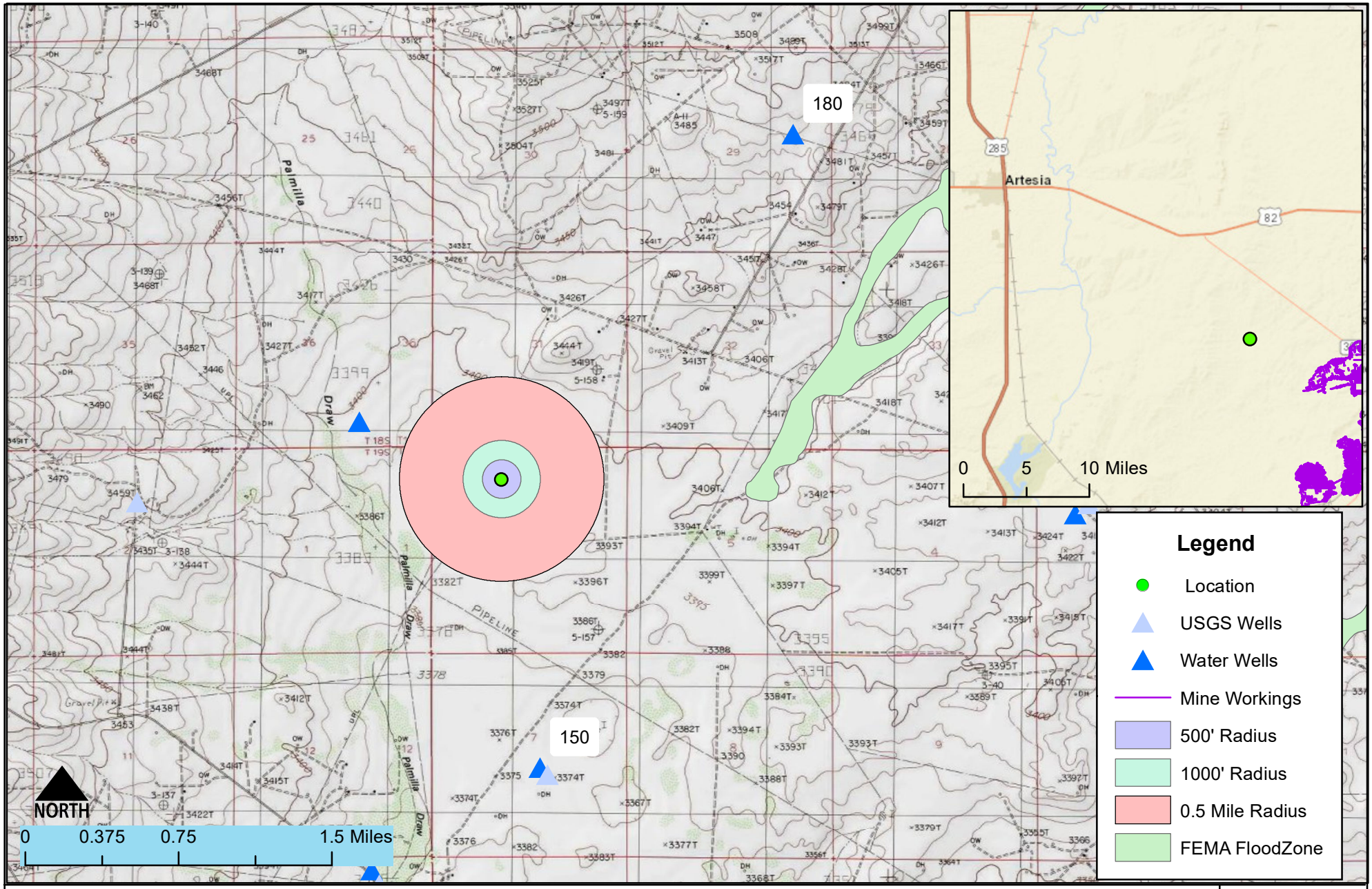
Tables:

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

Appendices:

Appendix A: Form C141 Initial
Appendix B: NMOSE Wells Report
Appendix C: Sampling Protocol and Field Notes
Appendix D: Laboratory Analytical Reports
Appendix E: Site Assessment/Characterization

FIGURES



Regional Vicinity & Wellhead Protection Map
SST #003 Matador Resources
S: 6 T19S R29 E, Eddy County New Mexico

Figure 1

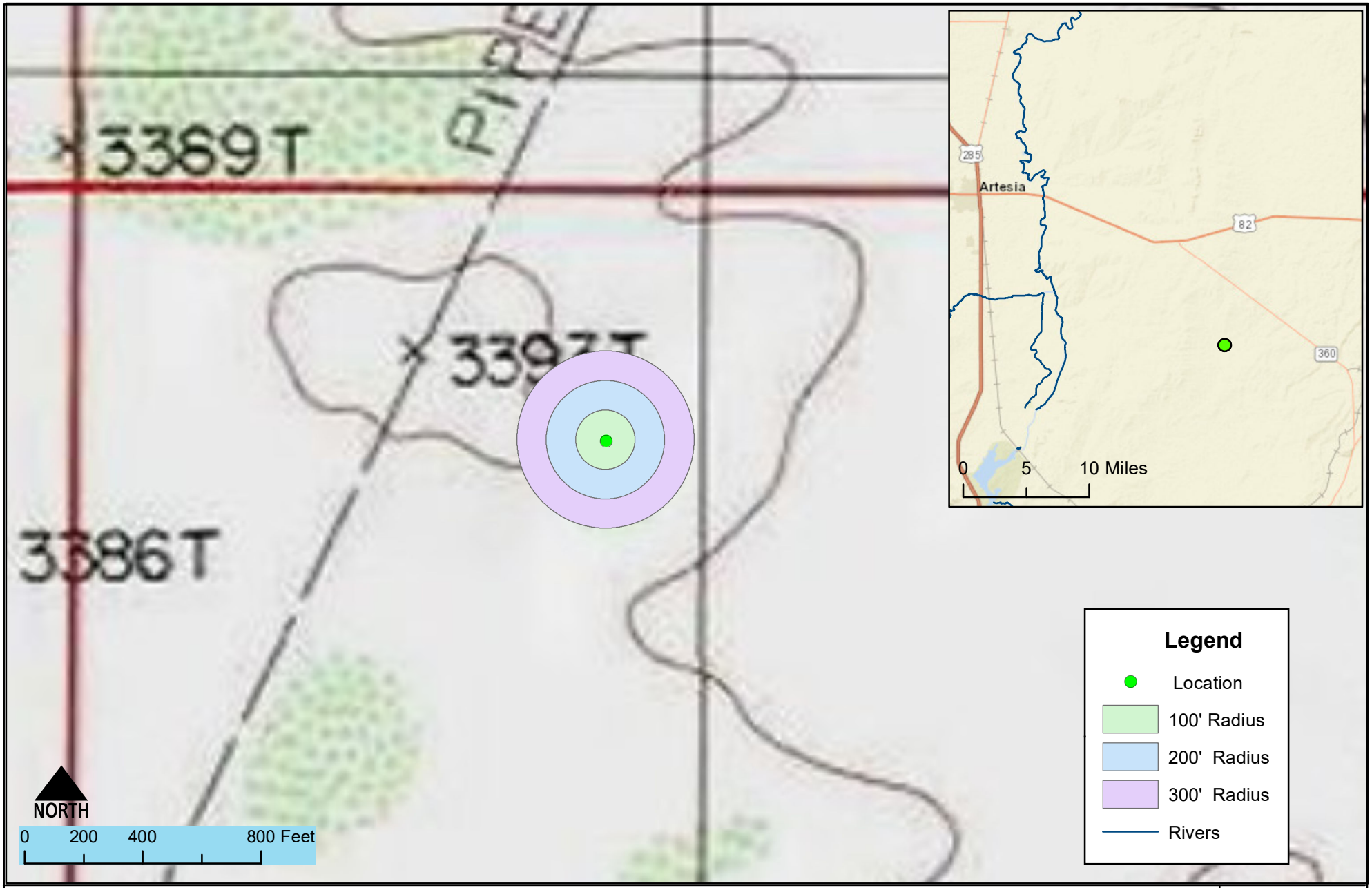
Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Lucas Middleton
Checked
Approved

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

Date Saved: 9/25/2018

Document: C:\Users\lcm\Documents\GIS DATA\MAPS\SST figure1.mxd



Surface Water Map
SST #003 Matador Resources
S: 6 T19S R29 E, Eddy County New Mexico

Figure 2

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

Drawn Lucas Middleton
Checked
Approved

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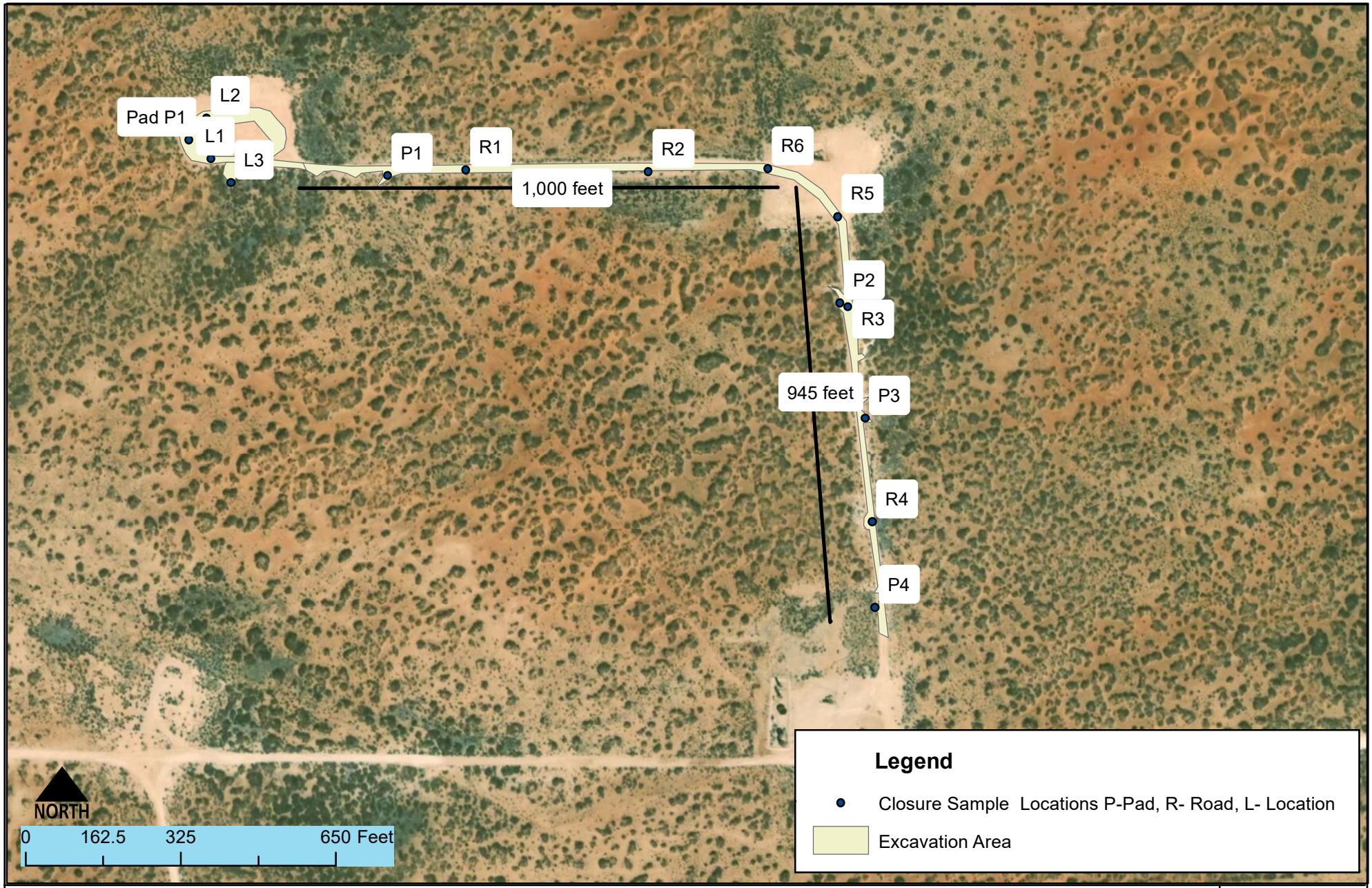
Document: C:\Users\lcm\Documents\GIS DATA\MAPS\SST Figure 2.mxd



Site and Sample Location Map
SST #003 Matador Resources
S: 6 T19S R29 E, Eddy County New Mexico

Figure 3a

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

Drawn Lucas Middleton
Checked
Approved

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Date Saved: 10/10/2018

Document: C:\Users\lcm\Documents\GIS DATA\MAPS\SST-3figure 3.mxd

TABLES

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	~167	USGS
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	none	OSE, USGS
Hortizontal Distance to Nearest Significant Watercourse (miles)	10.6	USG 7.5 quad Topographic Map

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

Table 3:
Summary of Sample Results

Matador Resources
SST #3 (2RP-4843)

Sample ID	Sample Date	Depth (feet bgs)	Proposed Action/ Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	GRO + DRO mg/Kg	MRO mg/Kg	**Total TPH** mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria				50	10			1000		100	20,000
L1	6/29/2018	1.5'	Excavated	<0.096	<0.024	<4.8	28	28	<50	28	980
	6/29/2018	3'	In-Situ	<0.098	<0.024	<4.9	<9.9	<9.9	<49	<49	830
L2	6/29/2018	1'	Excavated	<0.097	<0.024	<4.8	<9.8	<9.8	<49	<49	2100
	6/29/2018	3'	In-Situ	<0.093	<0.023	<4.7	<10	<10	<50	<50	1100
L3	6/29/2018	1'	Excavated	<0.095	<0.024	<4.8	<10	<10	<50	<50	140
	6/29/2018	3'	In-Situ	<0.096	<0.024	<4.8	<10	<10	<50	<50	<30
Field Screens											
Sample ID	Sample Date	Depth (feet bgs)	Proposed Action/ Action Taken							**PID**	Cl- mg/Kg
P1	9/5/2018	Surface	Excavated	--	--	--	--	--	--	<5	1,309.09
	9/5/2018	1'	In-Situ	--	--	--	--	--	--	<5	61.69
P2	9/5/2018	Surface	Excavated	--	--	--	--	--	--	<5	1,592.59
	9/5/2018	1'	In-Situ	--	--	--	--	--	--	<5	316.84
P3	9/5/2018	Surface	Excavated	--	--	--	--	--	--	<5	2,017.84
	9/5/2018	1'	In-Situ	--	--	--	--	--	--	<5	614.52
P4	9/5/2018	Surface	Excavated	--	--	--	--	--	--	<5	1,805.22
	9/5/2018	1'	In-Situ	--	--	--	--	--	--	<5	529.47
PAD P1	9/5/2018	Surface	Excavated	--	--	--	--	--	--	<5	2,301.34
R2	9/5/2018	Surface	Excavated	--	--	--	--	--	--	<5	2,088.72
	9/5/2018	1'	In-Situ	--	--	--	--	--	--	<5	529.47
R2	9/5/2018	Surface	Excavated	--	--	--	--	--	--	<5	1,550.07
	9/5/2018	1'	In-Situ	--	--	--	--	--	--	<5	501.12
R3	9/5/2018	Surface	Excavated	--	--	--	--	--	--	<5	1,606.77
	9/5/2018	1'	In-Situ	--	--	--	--	--	--	<5	699.57
R4	9/5/2018	Surface	Excavated	--	--	--	--	--	--	<5	1,748.52
	9/5/2018	1'	In-Situ	--	--	--	--	--	--	<5	628.69

"--" = Not Analyzed

APPENDIX A
FORM C141 FINAL

RECEIVED

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

JUL 05 2018

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

DISTRICT II-ARTESIA O.C.D.

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

nAB1819142351

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Matador Resources Company 228937	Contact John Hurt
Address 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	Telephone No. 972-371-5200
Facility Name SST #003	Facility Type Oil Well

Surface Owner State of New Mexico	Mineral Owner State of New Mexico	API No. 30-025-26547 30-015-26457

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	6	19S	29E	660	North	11747	West	Eddy

Latitude 32.6955185 **Longitude** 104.1162643 ° NAD83

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release unknown	Volume Recovered 0
Source of Release Illegal dumping	Date and Hour of Occurrence unknown	Date and Hour of Discovery 6/29/18 ~4:00p.m..
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Lucas Middleton(SMA)	Date and Hour 7/2/18 * 7/2/18 @ 5:22pm email	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*
An illegal dumping took place at an unknown time. An environmental firm was called to the location on June 29th, 2018 to assess and delineate the site. It was at this time that the full extent of the dumping was learned.

Describe Area Affected and Cleanup Action Taken.*

The illegal dumping affected two well pads, as well as the lease roads associated. SMA will delineate and remediate the site as per NMOCD rules and regulations.

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:

Printed Name: John Hurt

Title: RES Specialist

E-mail Address: Jhurt@matadorresources.com

Date: 7/3/18 Phone: 972-371-5200

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By

Approval Date: 7/9/18 Expiration Date: N/A

Conditions of Approval: See attached

Attached ☐ JRP4843

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 7/5/2018 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4843 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 2 office in ARTESIA on or before 8/5/2018. 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 Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Matador Resources Company	OGRID: 228937
Contact Name John Hurt	Contact Telephone
Contact email Jhurt@matadorresources.com	Incident # *(assigned by OCD) 2RP-4843*
Contact mailing address 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	

Location of Release Source

Latitude 32.694937° Longitude -104.115848°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name SST #003	Site Type Well Site
Date Release Discovered 6/29/18	API# *(if applicable)* 30-015-26457

Unit Letter	Section	Township	Range	County
C	6	19S	29E	Eddy

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

Nature and Volume of Release

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

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

Cause of Release

An illegal dumping took place at an unknown time. An environmental firm was called to the location on June 29, 2018 to assess and delineate the site. It
was at this time that the hill extent of the dumping was learned.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notification was given to Mike Bratcher, 7/2/18, 5:22 p.m. , email

Initial Response

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

☒ The source of the release has been stopped.

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

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

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

If all the actions described above have not been undertaken, explain why:
When the release was discovered no free liquids where able to be recovered.

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

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

Printed Name: John Hurt Title: RES Specialist

Signature: Date: 10/12/18

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

OCD Only

Received by: Date:

APPENDIX B
USGS WELLS REPORT

USGS Wells

FID	Shape *	SITENO	SITENAME	CATEGORY	AGENCY	LONGDD	LATDD	SITEURL
874	Point	323953104143401	19S.27E.14.24232	GW	USGS	-104.2432884	32.6648382	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=323953104143401
875	Point	323953104210601	19S.26E.14.231334	GW	USGS	-104.3521817	32.66483686	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=323953104210601
876	Point	323953104274401	19S.25E.14.133131	GW	USGS	-104.4627419	32.66483546	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=323953104274401
877	Point	323957104142501	19S.27E.13.11343	GW	USGS	-104.2407884	32.66594935	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=323957104142501
878	Point	323958104073401	19S.28E.13.21400	GW	USGS	-104.1266191	32.66622829	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=323958104073401
879	Point	324000104073601	19S.28E.13.214411	GW	USGS	-104.1266389	32.6656111	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324000104073601
880	Point	324004104285801	19S.25E.16.22332	GW	USGS	-104.4832983	32.66789076	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324004104285801
881	Point	324006104210801	19S.26E.14.12244	GW	USGS	-104.3527373	32.66844795	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324006104210801
882	Point	324008104131201	19S.28E.18.12113	GW	USGS	-104.2205102	32.66900509	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324008104131201
883	Point	324009104200501	19S.26E.13.211312	GW	USGS	-104.3352366	32.6692815	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324009104200501
884	Point	324010104210801	19S.26E.14.12224	GW	USGS	-104.3527374	32.66955906	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324010104210801
885	Point	324013104200301	19S.26E.12.43334	GW	USGS	-104.334681	32.6703926	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324013104200301
886	Point	324013104203601	19S.26E.12.333	GW	USGS	-104.3438481	32.6703925	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324013104203601
887	Point	324014104200601	19S.26E.12.433331	GW	USGS	-104.3355145	32.67067038	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324014104200601
888	Point	324019104033201	19S.29E.10.43211	GW	USGS	-104.0593955	32.67206225	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324019104033201
889	Point	324019104254201	19S.26E.07.33311	GW	USGS	-104.4288517	32.6720581	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324019104254201
890	Point	324022104105701	19S.28E.09.32322	GW	USGS	-104.1838056	32.67316667	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324022104105701
891	Point	324024104322201	19S.24E.12.413200	GW	USGS	-104.5399662	32.6734452	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324024104322201
892	Point	324025104254201	19S.26E.07.33111	GW	USGS	-104.4288517	32.67372476	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324025104254201
893	Point	324026104064301	19S.29E.07.41134	GW	USGS	-104.1124524	32.67400614	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324026104064301
894	Point	324026104202201	19S.26E.12.31444	GW	USGS	-104.3399591	32.67400364	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324026104202201
895	Point	324026104202202	19S.26E.12.31444 A	GW	USGS	-104.3399591	32.67400364	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324026104202202
896	Point	324026104202203	19S.26E.12.31444 B	GW	USGS	-104.3399591	32.67400364	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324026104202203
897	Point	324027104202401	19S.26E.12.314432	GW	USGS	-104.3405147	32.6742814	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324027104202401
898	Point	324034104201801	19S.26E.12.321324	GW	USGS	-104.338848	32.67622586	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324034104201801
899	Point	324035104201801	19S.26E.12.321322	GW	USGS	-104.338848	32.67650364	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324035104201801
900	Point	324041104294801	19S.25E.08.42222	GW	USGS	-104.4971879	32.67816836	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324041104294801
901	Point	324042104265801	19S.25E.11.24333	GW	USGS	-104.4499637	32.6784467	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324042104265801
902	Point	324058104341801	19S.24E.10.211412	GW	USGS	-104.5721889	32.68288899	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324058104341801
903	Point	324100104285501	19S.25E.04.444341	GW	USGS	-104.482465	32.6834463	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324100104285501
904	Point	324102104222401	19S.26E.10.11220	GW	USGS	-104.3738496	32.68400317	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324102104222401
905	Point	324105104222601	19S.26E.10.112212	GW	USGS	-104.3744052	32.6848365	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324105104222601
906	Point	324105104222801	19S.26E.10.11212	GW	USGS	-104.3749607	32.68483649	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324105104222801
907	Point	324107104265801	19S.25E.11.22111	GW	USGS	-104.4499638	32.68539114	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324107104265801
908	Point	324108104222401	19S.26E.03.33442	GW	USGS	-104.3738496	32.68566983	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324108104222401
909	Point	324115104234901	19S.26E.05.441421	GW	USGS	-104.3974617	32.68761399	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324115104234901
910	Point	324119104242101	19S.26E.05.323431	GW	USGS	-104.406351	32.68872499	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324119104242101
911	Point	324119104242201	19S.26E.05.32334	GW	USGS	-104.4066288	32.68872499	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324119104242201
912	Point	324120104433401	19S.23E.06.32242	GW	USGS	-104.7305241	32.6878856	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324120104433401
913	Point	324128104175901	19S.27E.05.41121	GW	USGS	-104.3002356	32.69122624	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324128104175901
914	Point	324129104233701	19S.26E.04.311142	GW	USGS	-104.3941283	32.6915029	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324129104233701
915	Point	324130104233501	19S.26E.04.311214	GW	USGS	-104.3935727	32.69178069	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324130104233501
916	Point	324131104234401	19S.26E.05.42212	GW	USGS	-104.3960728	32.69205843	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324131104234401
917	Point	324131104265501	19S.25E.02.42132	GW	USGS	-104.4491305	32.6920578	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324131104265501
918	Point	324135104035901	19S.29E.03.13223	GW	USGS	-104.0668963	32.69317308	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324135104035901
919	Point	324136104084701	19S.28E.02.23312	GW	USGS	-104.146898	32.69345006	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324136104084701
920	Point	324139104034901	19S.29E.03.12344	GW	USGS	-104.0645	32.6941111	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324139104034901
921	Point	324144104210701	19S.26E.02.23111	GW	USGS	-104.35246	32.69567004	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324144104210701
922	Point	324144104234401	19S.26E.05.24212	GW	USGS	-104.3960729	32.6956695	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324144104234401
923	Point	324154103593301	18S.30E.32.32422	GW	USGS	-103.993006	32.69845154	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324154103593301
924	Point	324154104115201	19S.28E.05.21114	GW	USGS	-104.1968611	32.69605556	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324154104115201
925	Point	324154104210701	19S.26E.02.21131	GW	USGS	-104.35246	32.6984478	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324154104210701
926	Point	324155104184601	18S.27E.31.430	GW	USGS	-104.3132919	32.69872603	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324155104184601
927	Point	324157104232401	19S.26E.04.12111	GW	USGS	-104.3905172	32.69928069	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324157104232401
928	Point	324158104040301	18S.29E.34.33233	GW	USGS	-104.0680077	32.6995619	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324158104040301
929	Point	324159103503801	18S.31E.35.31324	GW	USGS	-103.84725	32.70202778	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324159103503801
930	Point	324202104280401	18S.25E.34.43444	GW	USGS	-104.468298	32.70066868	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324202104280401
931	Point	324202104280402	18S.25E.34.43444 A	GW	USGS	-104.468298	32.70066868	https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324202104280402

APPENDIX C
SAMPLING PROTOCOL & FIELD NOTES

Sampling Protocol

Representatives from SMA chose the Judgmental Sampling Method as described in EPA's *Final Sampling Guidance for SW-846* (2002) to adequately quantify contaminant concentrations on the SST #3 Location. The utility of this particular method functions on the sufficient knowledge of the contaminant, which we possess. This design is also useful when identifying the composition of a release, which we have documented. In addition, this sampling design was chosen for this project because of the following reasons: the location's uniform soil type and known affected dimensions of the impacted material

The soil samples were collected in laboratory-supplied containers in accordance with this sampling protocol, immediately were placed on ice and sent under standard chain-of-custody protocols to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for analysis. A total of six 6) samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

Sampling Analysis Field Quality Assurance Procedures

Field Data and Information pertinent to field activities were recorded in field notes. The field notes were consecutively numbered and checked with sufficient information recorded in the field notes to permit reconstruction of site sampling activities. Information recorded on official project documents (e.g., survey forms, chains-of-custody, etc.) were not repeated in the log books except in summary form or cross-reference notation when determined necessary. Field notes were kept in the possession of the appropriate field personnel, or in a secure place when not being utilized during field work. Field notes have become part of the final project file upon completion of the field activities. Entries recorded in the field were made in blue or black, waterproof ink and may include, but is not limited to, the following information: sampler, date, and times of arrival at and departure from the site; description of the field activity and summary of daily tasks; names and responsibilities of field crew members; sample collection method and number/volume of sample(s) collected; Information regarding activity changes and scheduling modifications; field observations and weather conditions; types of field instruments used and purpose of use, including calibration methods and results; field measurements made and quantities/volumes of material sampled; scanning/surveying of equipment and materials; and Global Positioning System (GPS) coordinates as appropriate

A unique sample numbering system was used to identify each sample collected and designated for on-site and off-site laboratory analysis. The purpose of this numbering scheme is to provide a tracking system for the retrieval of analytical and field data on each sample. Sample identification numbers were recorded on sample labels or tags, field notes, chain-of-custody records (COC) and all other applicable documentation used during the project.

Field Screening

Location Name: SST #3 **Date:** 9-5-18

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
P1 - surface	9:15	~~1.8~~	23.5	>5	(Tan)	(Gravel) (Rock) Sand Silt Clay	(Dry) Moist Wet	Caliche
R1 - S	9:30	1.65	23.5	>5	(Tan)	(Gravel) (Rock) Sand Silt Clay	(Dry) Moist Wet	caliche
R1 - 1	9:35	~~0.5~~	~~23.9~~	~~>5~~	(Tan)	Gravel Rock (Sand) Silt Clay	(Dry) Moist Wet	
R2 - S	9:50	1.71	23.7	>5	(Tan)	Gravel Rock Sand Silt Clay	(Dry) Moist Wet	caliche Rock
R2 - 1	9:55	0.53	24.7	>5	(Tan)	Gravel Rock (Sand) Silt Clay	(Dry) Moist Wet	
R3 - S	10:15	1.31	24.1	>5	(Tan)	(Gravel) (Rock) Sand Silt Clay	(Dry) Moist Wet	Caliche Rock
R3 - 1	10:20	~~0.62~~ 0.67	24.1	>5	(Tan)	Gravel Rock (Sand) Silt Clay	Dry Moist Wet	
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	

Field Screening

Location Name: SST 3

Date: 9-5-18

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
R4-5	10:40	1.41	24.2	75	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	Cobble Road
R4-1	10:45	0.62	24.3	75	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	

Field Screening

Location Name: SST **Date:** 9-5-18

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
P1-S	11:00	1.1	25.0	>5	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
P1-1	11:05	0.22	25.1	>5	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
P2-S	11:15	1.3	25.1	>5	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
P2 1	11:20	0.40	25.1	>5	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
P3-S	11:25	1.60	25.1	>5	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
P3-1	11:30	0.61	25.2	>5	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
P4-S	11:40	1.45	26.2	>5	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
P4-1	11:45	0.55	26.3	>5	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	

APPENDIX D

LABORATORY ANALYTICAL REPORTS

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

July 17, 2018

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

RE: SST OrderNo.: 1807271

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 7 sample(s) on 7/7/2018 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: L1-3
Project: SST
Collection Date: 6/29/2018 10:30:00 AM
Lab ID: 1807271-001 **Matrix:** SOIL **Received Date:** 7/7/2018 10:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	830	30		mg/Kg	20	7/13/2018 2:12:27 PM	39196
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/11/2018 7:40:26 PM	39124
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/11/2018 7:40:26 PM	39124
Surr: DNOP	79.2	70-130		%Rec	1	7/11/2018 7:40:26 PM	39124
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/10/2018 1:29:11 PM	39103
Surr: BFB	97.9	15-316		%Rec	1	7/10/2018 1:29:11 PM	39103
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	7/10/2018 1:29:11 PM	39103
Benzene	ND	0.024		mg/Kg	1	7/10/2018 1:29:11 PM	39103
Toluene	ND	0.049		mg/Kg	1	7/10/2018 1:29:11 PM	39103
Ethylbenzene	ND	0.049		mg/Kg	1	7/10/2018 1:29:11 PM	39103
Xylenes, Total	ND	0.098		mg/Kg	1	7/10/2018 1:29:11 PM	39103
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	7/10/2018 1:29:11 PM	39103

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-18
Project: SST
Collection Date: 6/29/2018 10:40:00 AM
Lab ID: 1807271-002 **Matrix:** SOIL **Received Date:** 7/7/2018 10:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	980	30		mg/Kg	20	7/13/2018 2:49:41 PM	39196
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	28	10		mg/Kg	1	7/11/2018 8:02:34 PM	39124
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 8:02:34 PM	39124
Surr: DNOP	83.5	70-130		%Rec	1	7/11/2018 8:02:34 PM	39124
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/10/2018 1:52:37 PM	39103
Surr: BFB	90.6	15-316		%Rec	1	7/10/2018 1:52:37 PM	39103
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	7/10/2018 1:52:37 PM	39103
Benzene	ND	0.024		mg/Kg	1	7/10/2018 1:52:37 PM	39103
Toluene	ND	0.048		mg/Kg	1	7/10/2018 1:52:37 PM	39103
Ethylbenzene	ND	0.048		mg/Kg	1	7/10/2018 1:52:37 PM	39103
Xylenes, Total	ND	0.096		mg/Kg	1	7/10/2018 1:52:37 PM	39103
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	7/10/2018 1:52:37 PM	39103

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-1
Project: SST
Collection Date: 6/29/2018 10:50:00 AM
Lab ID: 1807271-003 **Matrix:** SOIL **Received Date:** 7/7/2018 10:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2100	75		mg/Kg	50	7/16/2018 6:49:00 AM	39196
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/13/2018 6:03:38 PM	39124
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/13/2018 6:03:38 PM	39124
Surr: DNOP	86.5	70-130		%Rec	1	7/13/2018 6:03:38 PM	39124
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/10/2018 2:16:05 PM	39103
Surr: BFB	95.9	15-316		%Rec	1	7/10/2018 2:16:05 PM	39103
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	7/10/2018 2:16:05 PM	39103
Benzene	ND	0.024		mg/Kg	1	7/10/2018 2:16:05 PM	39103
Toluene	ND	0.048		mg/Kg	1	7/10/2018 2:16:05 PM	39103
Ethylbenzene	ND	0.048		mg/Kg	1	7/10/2018 2:16:05 PM	39103
Xylenes, Total	ND	0.097		mg/Kg	1	7/10/2018 2:16:05 PM	39103
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	7/10/2018 2:16:05 PM	39103

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: SST
Collection Date: 6/29/2018 11:00:00 AM
Lab ID: 1807271-004 **Matrix:** SOIL **Received Date:** 7/7/2018 10:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	1100	30		mg/Kg	20	7/13/2018 3:39:19 PM	39196
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2018 8:46:57 PM	39124
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 8:46:57 PM	39124
Surr: DNOP	75.8	70-130		%Rec	1	7/11/2018 8:46:57 PM	39124
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/10/2018 2:39:35 PM	39103
Surr: BFB	97.8	15-316		%Rec	1	7/10/2018 2:39:35 PM	39103
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Methyl tert-butyl ether (MTBE)	ND	0.093		mg/Kg	1	7/10/2018 2:39:35 PM	39103
Benzene	ND	0.023		mg/Kg	1	7/10/2018 2:39:35 PM	39103
Toluene	ND	0.047		mg/Kg	1	7/10/2018 2:39:35 PM	39103
Ethylbenzene	ND	0.047		mg/Kg	1	7/10/2018 2:39:35 PM	39103
Xylenes, Total	ND	0.093		mg/Kg	1	7/10/2018 2:39:35 PM	39103
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	7/10/2018 2:39:35 PM	39103

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: SST
Collection Date: 6/29/2018 11:10:00 AM
Lab ID: 1807271-005 **Matrix:** SOIL **Received Date:** 7/7/2018 10:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	7/13/2018 3:51:44 PM	39196
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2018 9:09:13 PM	39124
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 9:09:13 PM	39124
Surr: DNOP	78.5	70-130		%Rec	1	7/11/2018 9:09:13 PM	39124
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/10/2018 4:37:32 PM	39103
Surr: BFB	98.5	15-316		%Rec	1	7/10/2018 4:37:32 PM	39103
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	7/10/2018 4:37:32 PM	39103
Benzene	ND	0.024		mg/Kg	1	7/10/2018 4:37:32 PM	39103
Toluene	ND	0.048		mg/Kg	1	7/10/2018 4:37:32 PM	39103
Ethylbenzene	ND	0.048		mg/Kg	1	7/10/2018 4:37:32 PM	39103
Xylenes, Total	ND	0.096		mg/Kg	1	7/10/2018 4:37:32 PM	39103
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/10/2018 4:37:32 PM	39103

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: SST
Collection Date: 6/29/2018 11:20:00 AM
Lab ID: 1807271-006 **Matrix:** SOIL **Received Date:** 7/7/2018 10:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	140	30		mg/Kg	20	7/13/2018 4:04:08 PM	39196
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2018 9:31:20 PM	39124
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 9:31:20 PM	39124
Surr: DNOP	79.6	70-130		%Rec	1	7/11/2018 9:31:20 PM	39124
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/10/2018 5:01:09 PM	39103
Surr: BFB	100	15-316		%Rec	1	7/10/2018 5:01:09 PM	39103
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	7/10/2018 5:01:09 PM	39103
Benzene	ND	0.024		mg/Kg	1	7/10/2018 5:01:09 PM	39103
Toluene	ND	0.048		mg/Kg	1	7/10/2018 5:01:09 PM	39103
Ethylbenzene	ND	0.048		mg/Kg	1	7/10/2018 5:01:09 PM	39103
Xylenes, Total	ND	0.095		mg/Kg	1	7/10/2018 5:01:09 PM	39103
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	7/10/2018 5:01:09 PM	39103

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BG1
Project: SST
Collection Date: 6/29/2018 11:30:00 AM
Lab ID: 1807271-007 **Matrix:** SOIL **Received Date:** 7/7/2018 10:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	30		mg/Kg	20	7/13/2018 4:16:32 PM	39196
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2018 9:53:32 PM	39124
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 9:53:32 PM	39124
Surr: DNOP	71.1	70-130		%Rec	1	7/11/2018 9:53:32 PM	39124
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/10/2018 5:24:49 PM	39103
Surr: BFB	98.6	15-316		%Rec	1	7/10/2018 5:24:49 PM	39103
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	7/10/2018 5:24:49 PM	39103
Benzene	ND	0.025		mg/Kg	1	7/10/2018 5:24:49 PM	39103
Toluene	ND	0.049		mg/Kg	1	7/10/2018 5:24:49 PM	39103
Ethylbenzene	ND	0.049		mg/Kg	1	7/10/2018 5:24:49 PM	39103
Xylenes, Total	ND	0.099		mg/Kg	1	7/10/2018 5:24:49 PM	39103
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/10/2018 5:24:49 PM	39103

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#: **1807271**

17-Jul-18

Client: Souder, Miller & Associates

Project: SST

Sample ID	**MB-39196**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**39196**	RunNo:	**52688**					
Prep Date:	**7/13/2018**	Analysis Date:	**7/13/2018**	SeqNo:	**1729903**	Units:	**mg/Kg**			

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

Sample ID	**LCS-39196**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**39196**	RunNo:	**52688**					
Prep Date:	**7/13/2018**	Analysis Date:	**7/13/2018**	SeqNo:	**1729904**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	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#: **1807271**

17-Jul-18

Client: Souder, Miller & Associates

Project: SST

Sample ID **MB-39124**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **39124**	RunNo: **52615**
Prep Date: **7/10/2018**	Analysis Date: **7/11/2018**	SeqNo: **1727495** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.3	70	130			

Sample ID **LCS-39124**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **39124**	RunNo: **52615**
Prep Date: **7/10/2018**	Analysis Date: **7/11/2018**	SeqNo: **1727497** 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	95.2	70	130			
Surr: DNOP	4.9		5.000		97.2	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#: **1807271**

17-Jul-18

Client: Souder, Miller & Associates

Project: SST

Sample ID	**MB-39103**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**39103**	RunNo:	**52591**					
Prep Date:	**7/9/2018**	Analysis Date:	**7/10/2018**	SeqNo:	**1725737**	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	930		1000		93.0	15	316			

Sample ID	**LCS-39103**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**39103**	RunNo:	**52591**					
Prep Date:	**7/9/2018**	Analysis Date:	**7/10/2018**	SeqNo:	**1725738**	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	110	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#: **1807271**

17-Jul-18

Client: Souder, Miller & Associates

Project: SST

Sample ID **MB-39103**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **39103**	RunNo: **52591**
Prep Date: **7/9/2018**	Analysis Date: **7/10/2018**	SeqNo: **1725764** 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-39103**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **39103**	RunNo: **52591**
Prep Date: **7/9/2018**	Analysis Date: **7/10/2018**	SeqNo: **1725765** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.90	0.10	1.000	0	90.4	70.1	121			
Benzene	0.97	0.025	1.000	0	96.8	77.3	128			
Toluene	1.0	0.050	1.000	0	100	79.2	125			
Ethylbenzene	0.98	0.050	1.000	0	98.0	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	100	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	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: 1807271 RcptNo: 1

Received By: **Anne Thorne** 7/7/2018 10:50:00 AM Anne Thorne

Completed By: **Isaiah Ortiz** 7/9/2018 8:56:12 AM IO

Reviewed By: IO 7/9/18

CB: ENM 7/9/18

Chain of Custody

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

Log In

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

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

Adjusted? ____

Checked by: ____

ENM 7/9/18

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	5.8	Good	Yes			

Chain-of-Custody Record

Client: SNA-Carlsbad

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☑ Rush 5 day

Project Name: SST

Project #:

Project Manager: Austin Weyant

Sampler:

On Ice: ☒ Yes ☐ No cooler #1

Sample Temperature: 6.8 CF-1.0 = 5.8

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. 1807271	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)
7/29/18	10:30	Soil	L1-3'	4oz		001	X		X					X								
	10:40		L1-18'			002	X		X					X								
	10:50		L2-1'			003	X		X					X								
	11:00		L2-3'			004	X		X					X								
	11:10		L3-3'			005	X		X					X								
	11:20		L3-1'			006	X		X					X								
	11:30		BG1			007	X		X					X								

Date	Time	Relinquished by:	Received by:	Date	Time
7/5/18	9:10			7/5/18	0910
7/5/18	1900			07/07/18	1050

Remarks:
Matador
cooler #2 14.1-CF-1.0 = 13.1

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

APPENDIX E

SITE ASSESSMENT/CHARACTERIZATION

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	~167 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: John Hurt Title: RES Specialist

Signature: Date: 10/12/18

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: John Hurt Title: RES Specialist

Signature: Date: 10/12/18

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

OCD Only

Received by: Date:

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Date: