



June 20, 2017

#5E26084-BG3

Lucid Energy  
Kerry Egan  
326 W. Quay  
Artesia, NM 88210

**SUBJECT: SOIL REMEDIATION WORK PLAN FOR THE INCIDENT AT THE COYOTE COMPRESSOR STATION, EDDY COUNTY, NEW MEXICO**

Dear Mr. Egan:

On behalf of Lucid Energy Group (Lucid), Souder, Miller & Associates (SMA) has prepared this WORK PLAN that describes the assessment, initial delineation and proposed remediation for a release associated with the Coyote Compressor Station. The site is in UNIT C, SECTION 9, TOWNSHIP 25S, RANGE 27E, NMPM, Eddy County, New Mexico, on State land. Figure 1 illustrates the vicinity and location of the site.

Table 1, below, summarizes information regarding the release.

<b>Table 1: Release information and Site Ranking</b>	
Name	Coyote Compressor Station
Company	Lucid Energy Group
Incident Number	2RP-1825, 2RP-4224
API Number	fJMW1322640713, fAB1714639098
Location	32.1502, -104.1980
Estimated Date of Release	August 9, 2013, May 21, 2017
Date Reported to NMOCD	August 9, 2013, May 23, 2017
Land Owner	State
Reported To	NM Oil Conservation Division (NMOCD)
Source of Release	Open valve and malfunctioning check valve
Released Material	Pipeline liquids (Condensate and waste water)
Released Volume	200 bbls, 100 bbls
Recovered Volume	45 bbls, 0 bbls
Net Release	155 bbls, 100bbls
Nearest Waterway	Black River is 5 miles northwest of the location
Depth to Groundwater	Estimated to be greater than 100 feet
Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	0
SMA Response Dates	Initial: June 6, 2017

## **1.0 Background**

An open valve and a malfunctioning check valve caused the release of 100 bbls of pipeline liquids consisting of condensate and waste water. The spill ran across the pad and down the bar ditch in front of the facility impacting a total of 950 square yards of surface. Three buried pipelines run through the ditch, with the majority of the spill impacting the area between the pipelines. Lucid, then operating the station as Agave Energy Company, had a similar spill that followed the same spill path in 2013. That spill was addressed at the time, but remains open in NMOCD records. The planned mitigation in this work plan is intended to address and close both spills.

## **2.0 Site Ranking and Land Jurisdiction**

Malaga is approximately 9 miles northeast of the release location. The elevation of the release site is approximately 3,296 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be greater than 100 feet below ground surface (bgs). NMOSE data in the area are rather sparse, but most information supports groundwater being greater than 100 feet. One well, C 03262 POD1, shows a depth to water at 75 feet, but its surface elevation is approximately 200 feet below the elevation of the site.

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.

<b>Soil Remediation Standards</b>	<b>0 to 9</b>	<b>10 to 19</b>	<b>&gt;19</b>
<b>Benzene</b>	<b>10 PPM</b>	<b>10 PPM</b>	<b>10 PPM</b>
<b>BTEX</b>	<b>50 PPM</b>	<b>50 PPM</b>	<b>50 PPM</b>
<b>TPH</b>	<b>5000 PPM</b>	<b>1000 PPM</b>	<b>100 PPM</b>

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

### **3.0 Release Characterization**

On June 6, 2017, after receiving 811 clearance, SMA field personnel assessed the release area. Soil samples were field-screened using an EC meter. Several sample locations were augered by hand and with a backhoe to a maximum depth of 5 feet bgs. Samples were collected to characterize and delineate the release. 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 BTEX by EPA Method 8021, TPH EPA Method 418.1 and chlorides EPA Method 300.0. Sample locations are depicted on Figure 2. All laboratory results are summarized in Table 3. Laboratory reports are included in Appendix C.

The area on the pad was scraped and sampled to a total depth of 4.5 feet, represented by samples L1-L3. Samples L4 and L5 were from the pooling area in the ditch and were advanced until we met refusal with the backhoe at bedrock. Side wall samples were also collected utilizing the backhoe (SW1, SW2, SW3, and SW4) to define the extent of the impact area. L1-1 and L5-3.5 is elevated in total hydrocarbons and will require further excavation at this sidewall. Soil samples L1 through L5 were screened for possible chloride impact, with results indicating low levels of chlorides. Soil contaminant concentrations are illustrated in Figure 2.

### **4.0 Proposed Soil Remediation Work Plan**

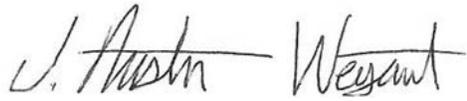
With approval from area utilities owners via 811, SMA proposes to excavate the affected soils. Due to production equipment and safety concerns, the impacted area on the pad will be scraped from 0.5 feet to 1 foot bgs, with the areas closest to the unit (L1 and Source sample points) to be deferred until site abandonment. The area within the bar ditch will be excavated to the bedrock, which occurs at 2.5 feet bgs at L4 and 4 feet bgs at L5. Due to safety concerns, the excavation in this area will not come within 3 feet of the buried pipelines. The proposed area to excavate is shown in Figure 2, and is highlighted in Table 3. SMA will continuously guide the excavation activities by collecting composite soil samples for field screening with a mobile titration unit (EPA 4500). The contaminated soil will be transported for proper disposal at an NMOCD permitted disposal facility. Closure samples will be collected at the final depth of excavation and from the sidewalls. Upon confirmation of remediation, SMA will submit a closure report to NMOCD.

### **5.0 Scope and Limitations**

The scope of our services consisted of the performance of assessment sampling, verification of release stabilization, regulatory liaison, and preparation of this work 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 Cynthia Gray at 505-325-7535.

Submitted by:  
SOUDER, MILLER & ASSOCIATES



Austin Weyant  
Project Scientist

Reviewed by:



Cynthia Gray, CHMM  
Senior Scientist

**ATTACHMENTS:**

**Figures:**

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

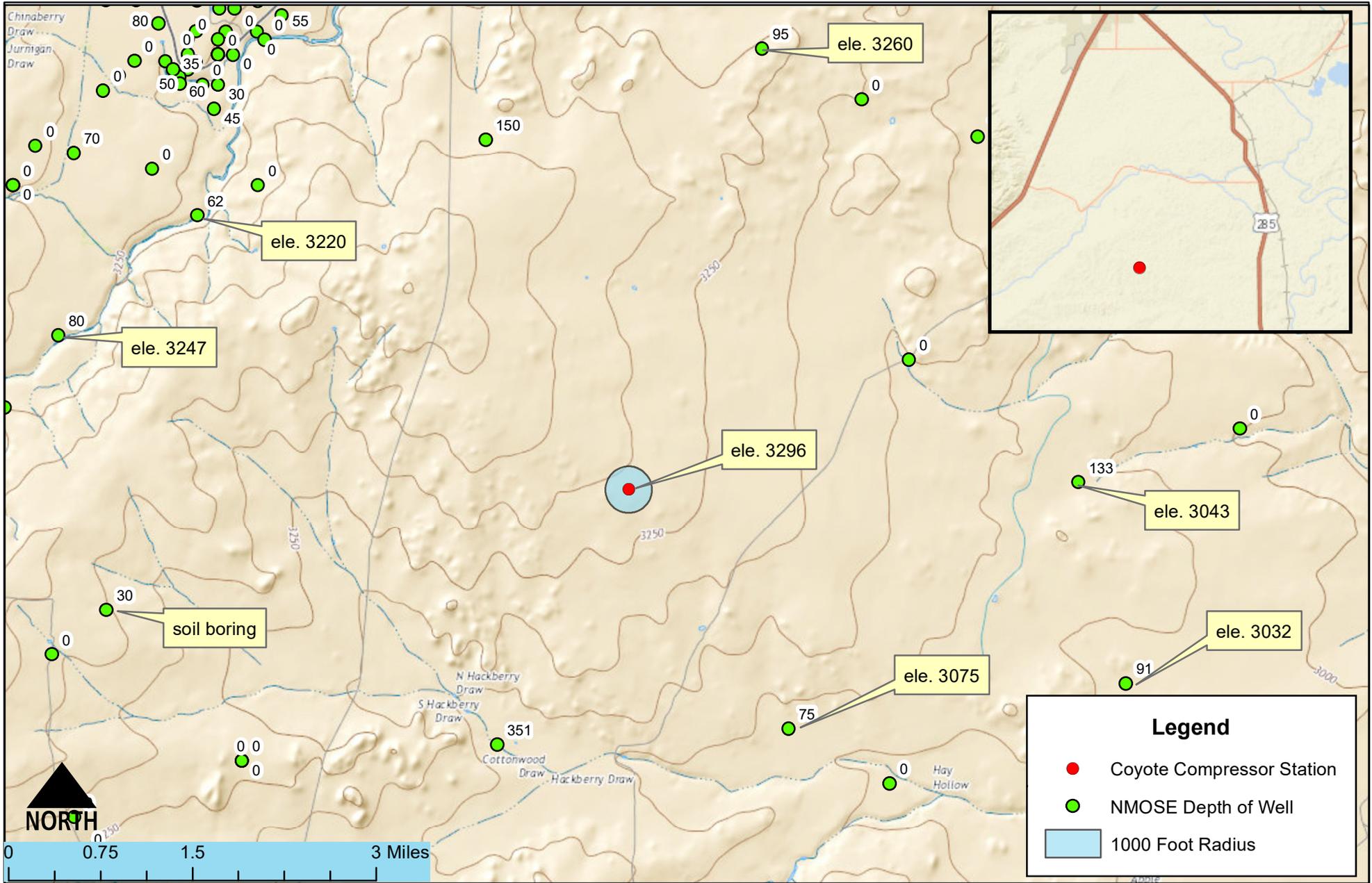
**Tables:**

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 NMOSE Wells Map  
 Coyote Compressor Station - Lucid  
 C 9-T25S-R27E, New Mexico

Figure 1

Date Saved:  
6/14/2017

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

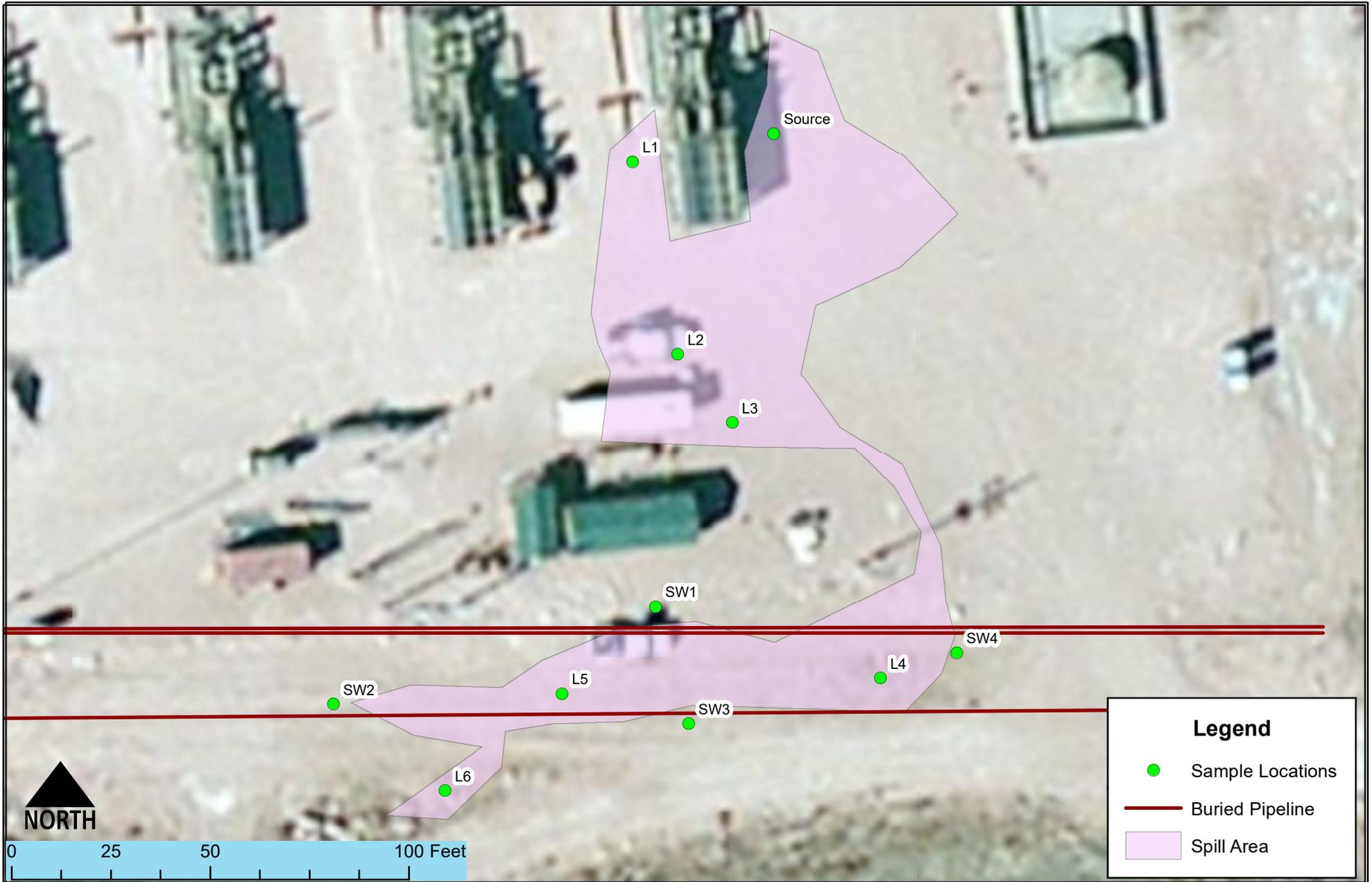
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Drawn **Heather Patterson**  
 Checked \_\_\_\_\_  
 Approved \_\_\_\_\_



201 South Halaguena Street  
 Carlsbad, New Mexico 88221  
 (575) 689-7040  
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**FIGURE 2**  
**SITE AND SAMPLE**  
**LOCATION MAP**



Site and Sample Location Map  
 Coyote Compressor Station - Lucid  
 C 9-T25S-R27E, New Mexico

Figure 2

Date Saved: 6/19/2017

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

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Drawn **Heather Patterson**  
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**TABLE 3**  
**SUMMARY SAMPLE RESULTS**

Coyote Compressor Station

**Sample Summary**

Table 3.

Sample Number on Figure 2	Sample Date	Depth (feet bgs)	Proposed Action	BTEX ppm	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	
Source	5/31/2017	0.5	excavate	<0.094	<0.024	<4.7	160	210	370	<b>5700</b>
L1	6/9/2017	0.5	excavate	<0.096	<0.024				3500	790
	6/9/2017	1	excavate	0.46	<0.023				<b>11000</b>	1000
L2	6/9/2017	0.5	excavate	--	--	--	--	--	--	91
	6/9/2017	1	in-situ	--	--	--	--	--	--	130
	6/9/2017	2	in-situ	<0.098	<0.024				21	220
L3	6/9/2017	1	in-situ	--	--	--	--	--	--	55
	6/9/2017	3	in-situ	--	--	--	--	--	--	35
	6/9/2017	4.5	in-situ	--	--	--	--	--	38	49
L4	6/9/2017	0.5	excavate	--	--	--	--	--	--	<b>4000</b>
	6/9/2017	1.5	excavate	--	--	--	--	--	--	510
	6/9/2017	2.5	in-situ	<0.094	<0.023				4500	720
L5	6/9/2017	0.5	excavate	--	--	--	--	--	--	280
	6/9/2017	2	excavate	--	--	--	--	--	--	73
	6/9/2017	3.5	excavate	5.5	<0.12				<b>25000</b>	80
L6	6/9/2017	0.5	in-situ	<0.096	<0.024				110	830
SW1	6/9/2017	comp	in-situ	<0.094	<0.023				<19	120
SW2	6/9/2017	comp	in-situ	<0.096	<0.024				61	40
SW3	6/9/2017	comp	in-situ	<0.097	<0.024				<19	39
SW4	6/9/2017	comp	in-situ	<0.095	<0.024				42	<30
BG1	6/9/2017	1	in-situ	--	--	--	--	--	--	170
	6/9/2017	2	in-situ	--	--	--	--	--	--	120

"--" = 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

**NM OIL CONSERVATION**

ARTESIA DISTRICT

MAY 25 2017

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

**RECEIVED**

Form C-141  
Revised August 8, 2011

LAB1714039098  
LAB1714039317

**Release Notification and Corrective Action**

**OPERATOR**

X Initial Report Final Report

Name of Company: Lucid Energy Delaware <i>3719100</i>	Contact Kerry Egan
Address 326 West Quay Artesia, NM 88210	Telephone No. 575 513-8988
Facility Name: Coyote Compressor Station	Facility Type: Compressor Station

Surface Owner: State of NM	Mineral Owner	API No.
----------------------------	---------------	---------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	9	25S	27E					EDDY

Latitude 32.1502 Longitude -104.1980

**NATURE OF RELEASE**

Type of Release: Pipeline Liquids	Volume of Release: Estimated 100 bbls of pipeline liquids (condensate/waste water)	Volume Recovered: None
Source of Release: Valve left open, and a malfunctioning check valve failed to prevent flow	Date and Hour of Occurrence: 5/21/2017	Date and Hour of Discovery: 5/21/2017
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Upon notification to Lucid EH&S, an email notification was made to Mike Bratcher on 5/23/2017	
By Whom? Kerry Egan	Date and Hour: 5/23/2017 6:55AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

**If a Watercourse was Impacted, Describe Fully.\***

**Describe Cause of Problem and Remedial Action Taken.\***

During the early morning of Sunday 5/21/2017 a load of pipeline liquids (condensate/produced water) was being collected at the Coyote Compressor station. A valve was mistakenly left open on the lines connecting the tanks to station dumps and skid drains. The check valve intended to prevent backflow in the line was not properly operating and allowed flow back through the lines, to a compressor unit skid. This backflow overflowed the skids containment.

Upon discovery the valve was shut, what liquid was still in the skid containment was pumped to the tanks. The check valve has been repaired to ensure proper operation. Contractors are being instructed on proper truck loading procedures at the site.

**Describe Area Affected and Cleanup Action Taken.\***

Once the liquid overflowed the skid containment it ran along the surface of the station pad, toward the south fence line, for approximately 120'. Once it reached the south fence, it pooled in a low-lying spot between the fence and the lease road. The area where pooling occurred appears to be 100' in length by 20' in width.

Preliminary remediation has begun inside the station's fence, deeper excavation is pending sample results. A site remediation plan is being prepared and will be submitted after reviewing the initial sampling results.

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: <i>Kerry Egan</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Kerry Egan	Signed By <i>Mike Bratcher</i> Approved by Environmental Specialist	
Title: Environmental Compliance Coordinator	Approval Date: <i>5/26/17</i>	Expiration Date: <i>N/A</i>
E-mail Address: KEgan@agaveenergy.com	Conditions of Approval: <i>See attached</i>	Attached <input checked="" type="checkbox"/>
Date: <i>5/24/2017</i> Phone: 575 810-6021		

\* Attach Additional Sheets If Necessary

New forms can be found in the  
New Mexico State Website in forms:  
[http://www.emnrd.state.nm.us/  
OCD/forms.html](http://www.emnrd.state.nm.us/OCD/forms.html)

2RP-4224

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 August 8, 2011

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

**Release Notification and Corrective Action**

*nJMW 1322640868*

**OPERATOR**

X Initial Report  Final Report

Name of Company	AGAVE ENERGY COMPANY <i>147831</i>	Contact	AUSTIN WEYANT
Address	105 SOUTH 4 <sup>TH</sup> STREET ARTESIA, NM	Telephone No.	575 513-8988
Facility Name	COYOTE COMPRESSOR STATION	Facility Type	COMPRESSOR STATION

Surface Owner	Mineral Owner	API No.
---------------	---------------	---------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	9	25 S	27E					EDDY

Latitude N32.1509 Longitude W104.1980

**NATURE OF RELEASE**

Type of Release	CONDENSATE	Volume of Release	200BBL	Volume Recovered	45BBL
Source of Release	PRODUCT TANK	Date and Hour of Occurrence		Date and Hour of Discovery	
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	<i>Approx. 8/9/13 per phone call</i>		
By Whom?		Date and Hour			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

**RECEIVED**  
AUG 13 2013  
NMOCD ARTESIA

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
2 inch ball valve failed allowing condensate to flow back through open drain piping and out compressor unit sump. The affected area was bordered with a temporary soil berm while a vacuum truck preformed recovery operations. An emergency 811 was made and clean up started. Check valves have been installed on open drain line to prevent any future backflow.

Describe Area Affected and Cleanup Action Taken.\*  
Affected area on the station's pad is 100ft X 60ft with a vertical extent of 4-7 inches, a portion of the release flowed off the pad and on to a lease road and bare ditch Affected are is 70ft long by 3ft wide with a vertical extent of 2ft. Affected soil will be removed and hauled off to R360 for disposal and replaced with unaffected top soil. Samples will be pulled from surface down to 4ft CI, TPH and BTEX will be included in any analysis.

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:	<i>Austin Weyant</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name:	AUSTIN WEYANT	Approved by Environmental Specialist	Signed By <i>Mike Brennan</i>
Title:	ENG TECH	Approval Date:	<b>AUG 14 2013</b>
E-mail Address:	awayant@yatespetroleum.com	Expiration Date:	
Date:	8/13/13	Conditions of Approval:	Attached <input type="checkbox"/>
Phone:	575 513-8988	Remediation per OCD Rule & Guidelines. <b>SUBMIT REMEDIATION</b>	

*fJMW 1322640713 / iJMW 1322644052*

PROPOSAL NO LATER THAN:  
September 14, 2013

*2RP-1825*

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 5/25/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4224 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 6/25/17. 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<sub>6</sub> thru C<sub>36</sub>), 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<sub>6</sub> thru C<sub>36</sub>), 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](mailto: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	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">C 03261 POD1</a>			ED	3	2	1	20	25S	27E	574007	3554006*	3746	351		
<a href="#">C 03262 POD1</a>	C		ED	2	1	2	22	25S	27E	577837	3554244*	3768	75		
<a href="#">C 03264 POD1</a>	C		ED	2	1	2	02	25S	27E	579391	3559099*	4084			
<a href="#">C 01841</a>	C		ED				1	29	24S	27E	573806	3561953*	4979	150	
<a href="#">C 03263 POD1</a>	C		ED	1	1	1	07	25S	28E	581628	3557501*	5929	133		
<a href="#">C 01452</a>	C		ED				22	24S	27E	577435	3563175*	6079	95	70	25
<a href="#">C 03654 POD1</a>		CUB	ED	2	3	1	24	25S	26E	570654	3553773	6184			
<a href="#">C 01721</a>	C		ED				1	25	24S	27E	580271	3562033*	6545	170	
<a href="#">C 00819</a>	C		ED	4	4	26	24S	26E	570022	3560935*	6716	62	42	20	
<a href="#">C 02221</a>		CUB	ED	4	3	2	25	25S	26E	571412	3551961*	6885	35		

Average Depth to Water: **56 feet**  
 Minimum Depth: **42 feet**  
 Maximum Depth: **70 feet**

**Record Count:** 10

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 575700.33

**Northing (Y):** 3557348.29

**Radius:** 7000

\*UTM location was derived from PLSS - see Help

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

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](http://www.hallenvironmental.com)

June 15, 2017

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

RE: Lucid Coyote

OrderNo.: 1706645

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 21 sample(s) on 6/13/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L1-0.5

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 9:00:00 AM

**Lab ID:** 1706645-001

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	3500	200		mg/Kg	10	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	790	30		mg/Kg	20	6/14/2017 11:42:44 AM	32282
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	6/14/2017 11:29:43 AM	32244
Benzene	ND	0.024		mg/Kg	1	6/14/2017 11:29:43 AM	32244
Toluene	ND	0.048		mg/Kg	1	6/14/2017 11:29:43 AM	32244
Ethylbenzene	ND	0.048		mg/Kg	1	6/14/2017 11:29:43 AM	32244
Xylenes, Total	ND	0.096		mg/Kg	1	6/14/2017 11:29:43 AM	32244
Surr: 4-Bromofluorobenzene	111	66.6-132		%Rec	1	6/14/2017 11:29:43 AM	32244

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L1-1

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 9:15:00 AM

**Lab ID:** 1706645-002

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	11000	1900		mg/Kg	100	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	1000	30		mg/Kg	20	6/14/2017 12:44:47 PM	32282
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.092		mg/Kg	1	6/14/2017 11:53:34 AM	32244
Benzene	ND	0.023		mg/Kg	1	6/14/2017 11:53:34 AM	32244
Toluene	0.052	0.046		mg/Kg	1	6/14/2017 11:53:34 AM	32244
Ethylbenzene	ND	0.046		mg/Kg	1	6/14/2017 11:53:34 AM	32244
Xylenes, Total	0.46	0.092		mg/Kg	1	6/14/2017 11:53:34 AM	32244
Surr: 4-Bromofluorobenzene	136	66.6-132	S	%Rec	1	6/14/2017 11:53:34 AM	32244

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L2-0.5

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 12:00:00 PM

**Lab ID:** 1706645-003

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	91	30		mg/Kg	20	6/14/2017 1:22:01 PM	32282

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L2-1

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 12:15:00 PM

**Lab ID:** 1706645-004

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	130	30		mg/Kg	20	6/14/2017 1:34:25 PM	32282

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L2-2

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 12:30:00 PM

**Lab ID:** 1706645-005

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	21	20		mg/Kg	1	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	220	30		mg/Kg	20	6/14/2017 1:46:50 PM	32282
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	6/14/2017 12:17:14 PM	32244
Benzene	ND	0.024		mg/Kg	1	6/14/2017 12:17:14 PM	32244
Toluene	ND	0.049		mg/Kg	1	6/14/2017 12:17:14 PM	32244
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2017 12:17:14 PM	32244
Xylenes, Total	ND	0.098		mg/Kg	1	6/14/2017 12:17:14 PM	32244
Surr: 4-Bromofluorobenzene	109	66.6-132		%Rec	1	6/14/2017 12:17:14 PM	32244

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L3-1

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 1:15:00 PM

**Lab ID:** 1706645-006

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	55	30		mg/Kg	20	6/14/2017 1:59:15 PM	32282

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L3-3

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 1:00:00 PM

**Lab ID:** 1706645-007

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	35	30		mg/Kg	20	6/14/2017 2:11:39 PM	32282

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L3-4.5

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 1:20:00 PM

**Lab ID:** 1706645-008

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	38	19		mg/Kg	1	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	49	30		mg/Kg	20	6/14/2017 12:58:02 PM	32285

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L4-0.5

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 1:30:00 PM

**Lab ID:** 1706645-009

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	4000	150		mg/Kg	100	6/14/2017 8:51:45 PM	32282

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L4-.5

Project: Lucid Coyote

Collection Date: 6/9/2017 11:00:00 AM

Lab ID: 1706645-010

Matrix: SOIL

Received Date: 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	510	30		mg/Kg	20	6/14/2017 2:36:29 PM	32282

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L4-2.5

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 11:00:00 AM

**Lab ID:** 1706645-011

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	4500	1900		mg/Kg	100	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	720	30		mg/Kg	20	6/14/2017 3:13:43 PM	32282
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	6/14/2017 12:40:50 PM	32244
Benzene	ND	0.023		mg/Kg	1	6/14/2017 12:40:50 PM	32244
Toluene	ND	0.047		mg/Kg	1	6/14/2017 12:40:50 PM	32244
Ethylbenzene	ND	0.047		mg/Kg	1	6/14/2017 12:40:50 PM	32244
Xylenes, Total	ND	0.094		mg/Kg	1	6/14/2017 12:40:50 PM	32244
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	6/14/2017 12:40:50 PM	32244

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L5-0.5

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 2:00:00 PM

**Lab ID:** 1706645-012

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	280	30		mg/Kg	20	6/14/2017 3:26:08 PM	32282

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L5-2

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 1:30:00 PM

**Lab ID:** 1706645-013

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	73	30		mg/Kg	20	6/14/2017 8:02:06 PM	32282

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L5-3.5

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 1:45:00 PM

**Lab ID:** 1706645-014

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	25000	1900		mg/Kg	100	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	80	30		mg/Kg	20	6/14/2017 8:14:30 PM	32282
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.48		mg/Kg	5	6/14/2017 1:04:27 PM	32244
Benzene	ND	0.12		mg/Kg	5	6/14/2017 1:04:27 PM	32244
Toluene	ND	0.24		mg/Kg	5	6/14/2017 1:04:27 PM	32244
Ethylbenzene	ND	0.24		mg/Kg	5	6/14/2017 1:04:27 PM	32244
Xylenes, Total	5.5	0.48		mg/Kg	5	6/14/2017 1:04:27 PM	32244
Surr: 4-Bromofluorobenzene	140	66.6-132	S	%Rec	5	6/14/2017 1:04:27 PM	32244

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L6-0.5

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 11:10:00 AM

**Lab ID:** 1706645-015

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	110	20		mg/Kg	1	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	830	30		mg/Kg	20	6/14/2017 8:26:55 PM	32282
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	6/14/2017 1:51:43 PM	32244
Benzene	ND	0.024		mg/Kg	1	6/14/2017 1:51:43 PM	32244
Toluene	ND	0.048		mg/Kg	1	6/14/2017 1:51:43 PM	32244
Ethylbenzene	ND	0.048		mg/Kg	1	6/14/2017 1:51:43 PM	32244
Xylenes, Total	ND	0.096		mg/Kg	1	6/14/2017 1:51:43 PM	32244
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	1	6/14/2017 1:51:43 PM	32244

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SW1

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 2:00:00 PM

**Lab ID:** 1706645-016

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	ND	19		mg/Kg	1	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	120	30		mg/Kg	20	6/14/2017 8:39:20 PM	32282
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	6/14/2017 6:11:55 PM	32244
Benzene	ND	0.023		mg/Kg	1	6/14/2017 6:11:55 PM	32244
Toluene	ND	0.047		mg/Kg	1	6/14/2017 6:11:55 PM	32244
Ethylbenzene	ND	0.047		mg/Kg	1	6/14/2017 6:11:55 PM	32244
Xylenes, Total	ND	0.094		mg/Kg	1	6/14/2017 6:11:55 PM	32244
Surr: 4-Bromofluorobenzene	113	66.6-132		%Rec	1	6/14/2017 6:11:55 PM	32244

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SW2

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 2:30:00 PM

**Lab ID:** 1706645-017

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	61	19		mg/Kg	1	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	40	30		mg/Kg	20	6/14/2017 1:35:16 PM	32285
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	6/14/2017 6:35:33 PM	32244
Benzene	ND	0.024		mg/Kg	1	6/14/2017 6:35:33 PM	32244
Toluene	ND	0.048		mg/Kg	1	6/14/2017 6:35:33 PM	32244
Ethylbenzene	ND	0.048		mg/Kg	1	6/14/2017 6:35:33 PM	32244
Xylenes, Total	ND	0.096		mg/Kg	1	6/14/2017 6:35:33 PM	32244
Surr: 4-Bromofluorobenzene	112	66.6-132		%Rec	1	6/14/2017 6:35:33 PM	32244

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SW3

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 2:45:00 PM

**Lab ID:** 1706645-018

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	ND	19		mg/Kg	1	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	39	30		mg/Kg	20	6/14/2017 1:47:41 PM	32285
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	6/14/2017 6:59:13 PM	32244
Benzene	ND	0.024		mg/Kg	1	6/14/2017 6:59:13 PM	32244
Toluene	ND	0.048		mg/Kg	1	6/14/2017 6:59:13 PM	32244
Ethylbenzene	ND	0.048		mg/Kg	1	6/14/2017 6:59:13 PM	32244
Xylenes, Total	ND	0.097		mg/Kg	1	6/14/2017 6:59:13 PM	32244
Surr: 4-Bromofluorobenzene	113	66.6-132		%Rec	1	6/14/2017 6:59:13 PM	32244

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SW4

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 3:15:00 PM

**Lab ID:** 1706645-019

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>MAB</b>
Petroleum Hydrocarbons, TR	42	20		mg/Kg	1	6/15/2017	32267
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	6/14/2017 2:00:05 PM	32285
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	6/14/2017 7:22:46 PM	32244
Benzene	ND	0.024		mg/Kg	1	6/14/2017 7:22:46 PM	32244
Toluene	ND	0.048		mg/Kg	1	6/14/2017 7:22:46 PM	32244
Ethylbenzene	ND	0.048		mg/Kg	1	6/14/2017 7:22:46 PM	32244
Xylenes, Total	ND	0.095		mg/Kg	1	6/14/2017 7:22:46 PM	32244
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	1	6/14/2017 7:22:46 PM	32244

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BG1-1

Project: Lucid Coyote

Collection Date: 6/9/2017 2:45:00 PM

Lab ID: 1706645-020

Matrix: SOIL

Received Date: 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	170	30		mg/Kg	20	6/14/2017 2:37:18 PM	32285

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706645

Date Reported: 6/15/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** BG1-2

**Project:** Lucid Coyote

**Collection Date:** 6/9/2017 2:50:00 PM

**Lab ID:** 1706645-021

**Matrix:** SOIL

**Received Date:** 6/13/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	120	30		mg/Kg	20	6/13/2017 11:45:17 PM	32261

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1706645

15-Jun-17

**Client:** Souder, Miller & Associates

**Project:** Lucid Coyote

Sample ID <b>MB-32261</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>32261</b>		RunNo: <b>43495</b>							
Prep Date: <b>6/13/2017</b>	Analysis Date: <b>6/13/2017</b>		SeqNo: <b>1369763</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID <b>LCS-32261</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>32261</b>		RunNo: <b>43495</b>							
Prep Date: <b>6/13/2017</b>	Analysis Date: <b>6/13/2017</b>		SeqNo: <b>1369764</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.7	90	110			

Sample ID <b>MB-32285</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>32285</b>		RunNo: <b>43507</b>							
Prep Date: <b>6/14/2017</b>	Analysis Date: <b>6/14/2017</b>		SeqNo: <b>1370245</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID <b>LCS-32285</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>32285</b>		RunNo: <b>43507</b>							
Prep Date: <b>6/14/2017</b>	Analysis Date: <b>6/14/2017</b>		SeqNo: <b>1370246</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.6	90	110			

Sample ID <b>MB-32282</b>	SampType: <b>mblk</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>32282</b>		RunNo: <b>43485</b>							
Prep Date: <b>6/14/2017</b>	Analysis Date: <b>6/14/2017</b>		SeqNo: <b>1370344</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID <b>LCS-32282</b>	SampType: <b>lcs</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>32282</b>		RunNo: <b>43485</b>							
Prep Date: <b>6/14/2017</b>	Analysis Date: <b>6/14/2017</b>		SeqNo: <b>1370345</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.8	90	110			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1706645

15-Jun-17

**Client:** Souder, Miller & Associates

**Project:** Lucid Coyote

Sample ID <b>MB-32267</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 418.1: TPH</b>							
Client ID: <b>PBS</b>	Batch ID: <b>32267</b>		RunNo: <b>43516</b>							
Prep Date: <b>6/14/2017</b>	Analysis Date: <b>6/15/2017</b>		SeqNo: <b>1370773</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID <b>LCS-32267</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 418.1: TPH</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>32267</b>		RunNo: <b>43516</b>							
Prep Date: <b>6/14/2017</b>	Analysis Date: <b>6/15/2017</b>		SeqNo: <b>1370775</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	112	61.7	138			

Sample ID <b>LCSD-32267</b>	SampType: <b>LCSD</b>		TestCode: <b>EPA Method 418.1: TPH</b>							
Client ID: <b>LCSS02</b>	Batch ID: <b>32267</b>		RunNo: <b>43516</b>							
Prep Date: <b>6/14/2017</b>	Analysis Date: <b>6/15/2017</b>		SeqNo: <b>1370776</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	120	20	100.0	0	120	61.7	138	6.40	20	

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1706645

15-Jun-17

**Client:** Souder, Miller & Associates

**Project:** Lucid Coyote

Sample ID: <b>MB-32244</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>32244</b>	RunNo: <b>43491</b>								
Prep Date: <b>6/13/2017</b>	Analysis Date: <b>6/14/2017</b>	SeqNo: <b>1370062</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	66.6	132			

Sample ID: <b>LCS-32244</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>32244</b>	RunNo: <b>43491</b>								
Prep Date: <b>6/13/2017</b>	Analysis Date: <b>6/14/2017</b>	SeqNo: <b>1370063</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.85	0.10	1.000	0	84.5	66.5	120			
Benzene	1.0	0.025	1.000	0	99.6	80	120			
Toluene	1.0	0.050	1.000	0	99.8	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.8	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.2	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	66.6	132			

**Qualifiers:**

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

**Sample Log-In Check List**

Client Name: SMA-CARLSBAD

Work Order Number: 1706645

RcptNo: 1

Received By: Richie Eriacho

6/13/2017 9:45:00 AM

Completed By: Ashley Gallegos

6/13/2017 10:37:10 AM

Reviewed By: ENM

06/13/17

**Chain of Custody**

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

**Log In**

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

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

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

**Special Handling (if applicable)**

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

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

**18. Cooler Information**

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







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

June 16, 2017

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

RE: Coyote

OrderNo.: 1706251

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/6/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706251

Date Reported: 6/16/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L 1-0.5 (Source)

**Project:** Coyote

**Collection Date:** 5/31/2017

**Lab ID:** 1706251-001

**Matrix:** SOIL

**Received Date:** 6/6/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	5700	300		mg/Kg	200	6/12/2017 5:00:22 PM	32211
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	160	9.9		mg/Kg	1	6/8/2017 1:47:05 PM	32152
Motor Oil Range Organics (MRO)	210	50		mg/Kg	1	6/8/2017 1:47:05 PM	32152
Surr: DNOP	93.6	70-130		%Rec	1	6/8/2017 1:47:05 PM	32152
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/7/2017 9:11:27 PM	32141
Surr: BFB	97.2	54-150		%Rec	1	6/7/2017 9:11:27 PM	32141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	6/7/2017 9:11:27 PM	32141
Benzene	ND	0.024		mg/Kg	1	6/7/2017 9:11:27 PM	32141
Toluene	ND	0.047		mg/Kg	1	6/7/2017 9:11:27 PM	32141
Ethylbenzene	ND	0.047		mg/Kg	1	6/7/2017 9:11:27 PM	32141
Xylenes, Total	ND	0.094		mg/Kg	1	6/7/2017 9:11:27 PM	32141
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/7/2017 9:11:27 PM	32141

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1706251

16-Jun-17

**Client:** Souder, Miller & Associates

**Project:** Coyote

Sample ID <b>MB-32211</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>32211</b>		RunNo: <b>43415</b>							
Prep Date: <b>6/9/2017</b>	Analysis Date: <b>6/9/2017</b>		SeqNo: <b>1366812</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID <b>LCS-32211</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>32211</b>		RunNo: <b>43415</b>							
Prep Date: <b>6/9/2017</b>	Analysis Date: <b>6/9/2017</b>		SeqNo: <b>1366813</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	90	110			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1706251

16-Jun-17

**Client:** Souder, Miller & Associates

**Project:** Coyote

Sample ID <b>LCS-32152</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>32152</b>		RunNo: <b>43341</b>							
Prep Date: <b>6/7/2017</b>	Analysis Date: <b>6/8/2017</b>		SeqNo: <b>1364955</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.3	73.2	114			
Surr: DNOP	4.0		5.000		81.0	70	130			

Sample ID <b>MB-32152</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>32152</b>		RunNo: <b>43341</b>							
Prep Date: <b>6/7/2017</b>	Analysis Date: <b>6/8/2017</b>		SeqNo: <b>1364956</b>		Units: <b>mg/Kg</b>					
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	9.0		10.00		90.2	70	130			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1706251

16-Jun-17

**Client:** Souder, Miller & Associates

**Project:** Coyote

Sample ID <b>MB-32141</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>32141</b>		RunNo: <b>43317</b>							
Prep Date: <b>6/6/2017</b>	Analysis Date: <b>6/7/2017</b>		SeqNo: <b>1364057</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	54	150			

Sample ID <b>LCS-32141</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>32141</b>		RunNo: <b>43317</b>							
Prep Date: <b>6/6/2017</b>	Analysis Date: <b>6/7/2017</b>		SeqNo: <b>1364058</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	76.4	125			
Surr: BFB	1100		1000		106	54	150			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1706251

16-Jun-17

**Client:** Souder, Miller & Associates

**Project:** Coyote

Sample ID <b>MB-32141</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>32141</b>		RunNo: <b>43317</b>							
Prep Date: <b>6/6/2017</b>	Analysis Date: <b>6/7/2017</b>		SeqNo: <b>1364078</b>		Units: <b>mg/Kg</b>					
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	1.3		1.000		126	66.6	132			

Sample ID <b>LCS-32141</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>32141</b>		RunNo: <b>43317</b>							
Prep Date: <b>6/6/2017</b>	Analysis Date: <b>6/7/2017</b>		SeqNo: <b>1364079</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.0	0.10	1.000	0	101	66.5	120			
Benzene	1.1	0.025	1.000	0	105	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		124	66.6	132			

**Qualifiers:**

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



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: 1706251

RcptNo: 1

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

Completed By: **Ashley Gallegos** 6/6/2017 12:48:39 PM

Reviewed By: *A. Orlowski*

*[Handwritten signatures]*

**Chain of Custody**

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

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No  # of preserved bottles checked for pH: \_\_\_\_\_ (<2 or >12 unless noted)
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No  Adjusted? \_\_\_\_\_
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes  No  Checked by: \_\_\_\_\_

**Special Handling (if applicable)**

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

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

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	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)

Project Manager:

*Anita Weyant*

Sampler:

On Ice:  Yes  No

Sample Temperature: 26°C

Date Time Matrix Sample Request ID

5/31/17 soil 41-0.5 (soave)  
dygaldeld-7

Container Type and #

Preservative Type

HEAL No.  
170625A  
-001

Turn-Around Time:

Standard  Rush

Project Name:

*Coyote*

Project #:

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

BTEX + MTBE + TMBs (8021)	<input checked="" type="checkbox"/>
BTEX + MTBE + TPH (Gas only)	<input checked="" type="checkbox"/>
TPH 8015B (GRO / DRO / MRO)	<input checked="" type="checkbox"/>
TPH (Method 418.1)	
EDB (Method 504.1)	
PAH's (8310 or 8270 SIMS)	
RCRA 8 Metals	<input checked="" type="checkbox"/>
Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	<input checked="" type="checkbox"/>
8081 Pesticides / 8082 PCB's	
8260B (VOA)	
8270 (Semi-VOA)	
Air Bubbles (Y or N)	

Remarks:

Received by: *[Signature]* Date: 6/5/17 Time: 1400  
 Received by: *[Signature]* Date: 6/6/17 Time: 1015

Date: 6/5/17 Time: 1400 Relinquished by: *[Signature]*  
 Date: 6/6/17 Time: 1900 Relinquished by: *[Signature]*

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.