



June 14, 2018

#5E26084-BG9

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

SUBJECT: SOIL REMEDIATION CLOSURE REPORT FOR THE ROADRUNNER GAS PLANT(2RP-4654), EDDY COUNTY, NEW MEXICO

Dear Mr. Egan:

Souder, Miller & Associates (SMA) has prepared this CLOSURE REPORT that describes the assessment, initial delineation and remediation for a release associated with the Roadrunner Gas Plant. The site is in SECTION 32, TOWNSHIP 23S, RANGE 28E, NMPM, Eddy County, New Mexico, on private land. Figure 1 illustrates the vicinity and location of the site. Table 1 summarizes release information.

Table 1: Release information and Site Ranking	
Name	Roadrunner Gas Plant
Company	Lucid Energy Group
Incident Number	2RP-4654
API Number	fAB1806740738
Location	32.266960, -104.116886
Estimated Date of Release	March 4, 2018
Date Reported to NMOCD	March 8, 2018
Land Owner	Private
Reported To	NM Oil Conservation Division (NMOCD)
Source of Release	Drain Valve
Released Material	Tri-ethylene Glycol
Released Volume	1000 gallons (~24 bbls)
Recovered Volume	0
Net Release	1000 gallons (~24 bbls)
Nearest Waterway	Carlsbad Irrigation District Canal is 1200 ft northeast of the location
Depth to Groundwater	Estimated to be less than 50 feet
Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	20
SMA Response Dates	March 8, 2018, April 24, 2018, May 22, 2018

1.0 Background

An open drain valve caused the Tri-ethylene Glycol (TEG) tank to fill and overflow causing the release of approximately 24 bbls of TEG. The release ran across the gravel pad of the facility impacting approximately 50 feet by 50 feet of surface area. The TEG had already been in circulation, and therefore was expected to contain potential hydrocarbon and chloride contamination.

2.0 Site Ranking and Land Jurisdiction

Loving is approximately one mile northeast of the release location. The elevation of the release site is approximately 3,129 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be less than 50 feet below ground surface (bgs). NMOSE data in the area has plenty of data points to support this determination.

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

Table 2.

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

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

3.0 Release Characterization

Immediately after the release, the gravel and approximately 3 inches of heavily impacted soils were scraped and hauled off to an NMOCD approved facility. On March 8, 2018, SMA field personnel assessed the release area. Three sample locations were augered by hand to a maximum depth of 1 foot bgs to characterize and delineate the release. Sample location L1 was collected from the point of release and is considered to be the most heavily impacted. 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.

Delineation samples indicated that contamination extended to less than one foot at L2, and beyond one foot in the areas of L1 and L3.

4.0 Soil Remediation

With approval from area utilities owners via 811, the site was excavated to 1.5 feet bgs around L1 and L3, and to 1 foot bgs at L2. On April 24, 2018 samples were collected from the excavation area at locations L1 and L3. Results from sample location L1 indicated contaminants below RRALs; however, location L3 results indicated TPH remained elevated above the RRAL, and further excavation was recommended. This location was further excavated approximately three inches. On May 22, 2018 SMA personnel resampled the location of L3. After final excavation, all samples locations are within NMOCD recommended remediation action levels (RRALs). No further action is recommended at this time. Contaminated soil was disposed of at an NMOCD approved facility.

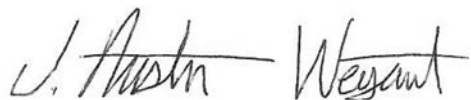
5.0 Scope and Limitations

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

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

Submitted by:
SOUDER, MILLER & ASSOCIATES

Reviewed by:



Austin Weyant
Project Scientist



Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map

Figure 2: Site and Sample Location Map

Tables:

Table 3: Summary of Sample Results

Appendices:

Appendix A: Form C141 Initial and Final

Appendix B: NMOSE Wells Report

Appendix C: Laboratory Analytical Reports

FIGURE 1
VICINITY AND NMOSE
DATA MAP

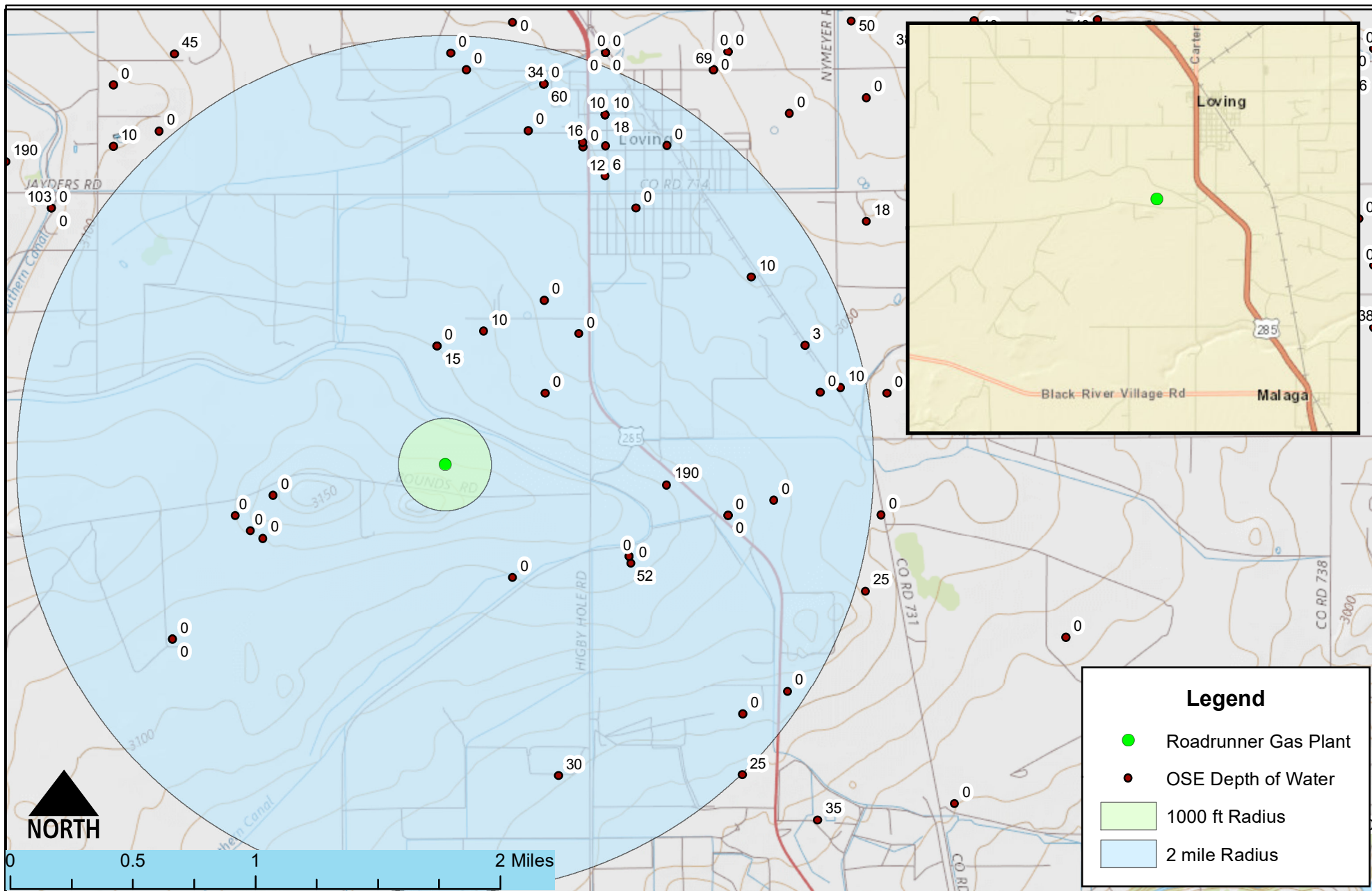


Figure 1

Date Saved:
3/12/2018

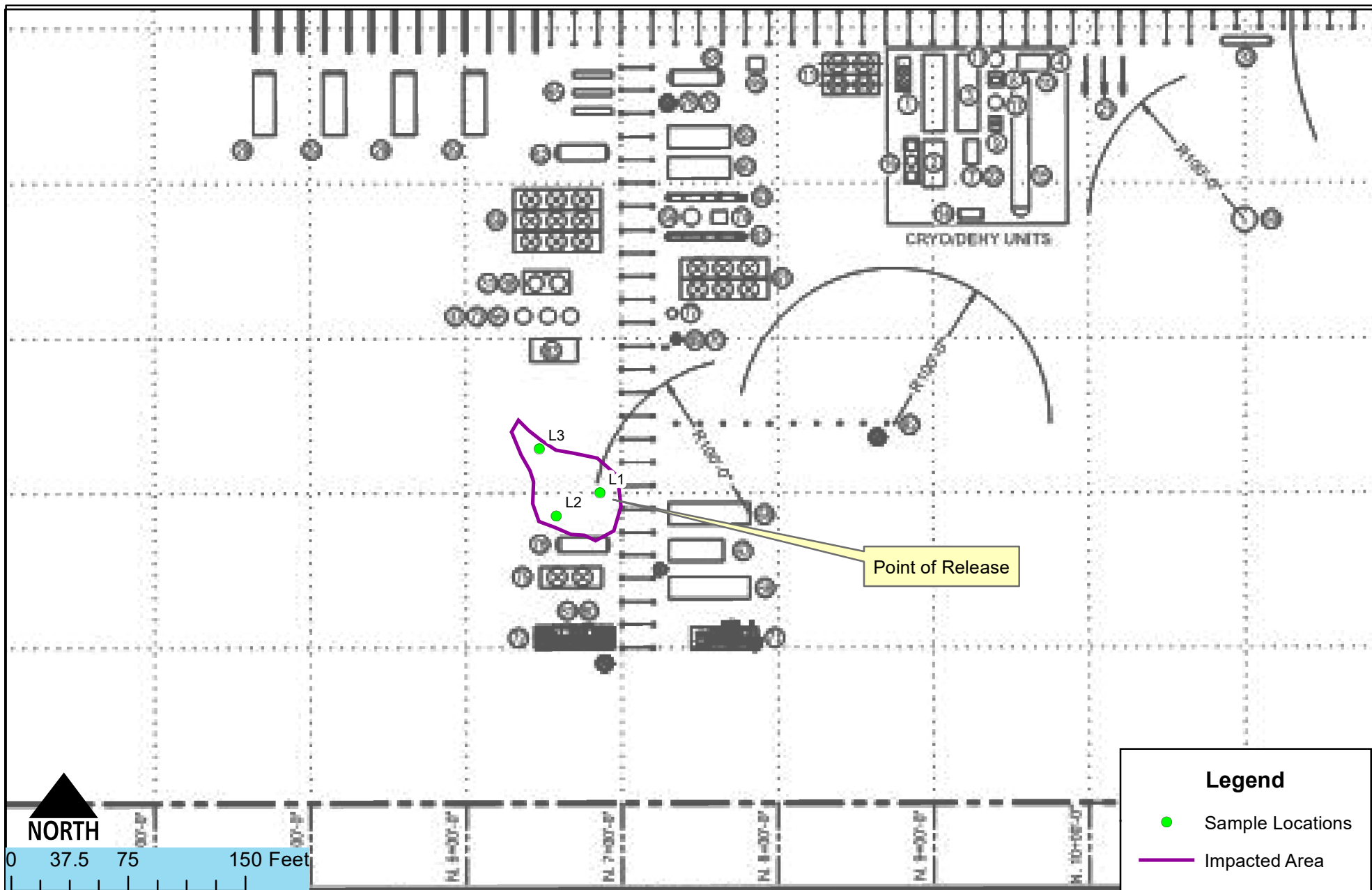
By: _____ Date: _____ Descr: _____
 By: _____ Date: _____ Descr: _____
 Copyright 2015 Souder, Miller & Associates - All Rights Reserved

Drawn **Heather Patterson**
 Checked _____
 Approved _____



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

FIGURE 2
SITE AND SAMPLE
LOCATION MAP



Site and Sample Location Map
 Roadrunner Gas Plant - Lucid
 S 32-T23S-R28E, New Mexico

Figure 2

Date Saved:
6/14/2018

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

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Drawn **Heather Patterson**
 Checked _____
 Approved _____



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TABLE 3
SUMMARY SAMPLE RESULTS

Roadrunner Gas Plant

Table 3.

Sample Number on Figure 2	Sample Date	Depth (feet bgs)	Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- Laboratory mg/Kg
NMOCD RRAL's for Site Ranking 20				50 mg/Kg	10 mg/Kg				100 mg/Kg	
L1	3/8/2018	0.5	excavated	<0.23	<0.025	<5	780	<48	780	1400
	3/8/2018	1	excavated	<0.23	<0.023	<4.7	150	<48	150	500
	4/24/2018	1.5	in-situ	--	--	<4.7	36	<48	36	310
L2	3/8/2018	0.5	excavated	0.077	<0.025	<5	5600	<440	5600	110
	3/8/2018	1	in-situ	<0.23	<0.024	<4.8	23	<49	23	110
L3	3/8/2018	0.5	excavated	<0.23	<0.024	<4.9	820	<50	820	92
	3/8/2018	1	excavated	<0.23	<0.023	<4.6	230	<46	230	120
	4/24/2018	1.5	excavated	--	--	<4.7	200	<46	200	700
	5/22/2018	1.75	in-situ	--	--	<4.7	<10	<50	<64.7	99
SP	3/8/2018	spill pile	haul	0.46	0.04	1.6	16,000	4,900	20,902	300

"--" = Not Analyzed

APPENDIX A
FORM C141 INITIAL AND FINAL

NM OIL CONSERVATION

ARTESIA DISTRICT

MAR 08 2018

Form C-141
Revised August 8, 2011

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

RECEIVED

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

PAB 1806740738
NAB 1806740932

Release Notification and Corrective Action

OPERATOR

X Initial Report Final Report

Name of Company: Lucid Energy Delaware #3719100	Contact Kerry Egan
Address 201 South Fourth Artesia, NM 88210	Telephone No. 575 513-8988
Facility Name: Roadrunner Gas Plant	Facility Type: Gas Plant

Surface Owner: Lucid Energy Delaware	Mineral Owner	API No.
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LOCATION OF RELEASE

Unit Letter	Section 32	Township 23S	Range 28E	Feet from the	North/South Line	Feet from the	East/West Line	County EDDY
-------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude 32.266960° Longitude -104.116886°

NATURE OF RELEASE

Type of Release: Tri-ethylene Glycol	Volume of Release: 1000 gallons	Volume Recovered: None
Source of Release: Drain Valve left open on filter case.	Date and Hour of Occurrence: 3/4/18 6:00PM	Date and Hour of Discovery: 3/4/18 7:00PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
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.* The drain valve on a filter case was opened during filter change out. The valve was not closed prior to putting the filter case back into service. The TEG holding tank filled and overflowed before the valve was identified and closed. In response the pump controlling the level in the tank has been set to automatically turn preventing further overflow.

Describe Area Affected and Cleanup Action Taken.*

The TEG affected gravel/soil in an area approximately 50' x 50'. The contaminated material has been scrapped up and disposed of at an NMOCD approved facility. Soil sampling will dictate whether further excavation is needed. A work plan will be prepared and submitted.

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>	OIL CONSERVATION DIVISION	
Printed Name: Kerry Egan	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Environmental Compliance Coordinator	Approval Date: 3/8/18	Expiration Date: N/A
E-mail Address: KEgan@lucid-energy.com	Conditions of Approval: <i>See Attached</i>	Attached <i>ARP-4654</i>
Date: 3/8/2018	Phone: 575 810-6021	

* Attach Additional Sheets If Necessary

Please refer to the New Mexico Oil
Conservation Division Website for
updated form(s) at:
[http://www.emnrd.state.nm.us/
OCD/forms.html](http://www.emnrd.state.nm.us/OCD/forms.html)
Thank you

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 3/8/2018 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4654 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 4/8/2018. 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; C₆ thru C₃₆), 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; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

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

- Composite sampling is not generally allowed.

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

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

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

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

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

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

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

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Lucid Energy Delaware	Contact Kerry Egan	
Address 522 W. Mermod, Ste 704, Carlsbad NM 88220	Telephone No. 575-513-8988	
Facility Name Roadrunner Gas Plant	Facility Type Gas Plant	
Surface Owner Lucid Energy Delaware	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section 32	Township 23S	Range 28E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
-------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude 32.26696 Longitude -104.116886 NAD83

NATURE OF RELEASE

Type of Release tri-ethylene glycol	Volume of Release 1000 gallons	Volume Recovered none
Source of Release Drain Valve left open on filter case	Date and Hour of Occurrence 3/4/2018 6PM	Date and Hour of Discovery 3/4/2018 7PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Amy Ruth	Date and Hour	
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.*

The drain valve on a filter case was opened during filter change out. The valve was not closed prior to putting the filter case back into service. The TEG holding tank filled and overflowed before the valve was identified and closed. In response the pump controlling the level in the tank has been set to automatically turn preventing further overflow.

Describe Area Affected and Cleanup Action Taken.*

The TEG affected gravel/soil in an area approximately 50' x 50'. The contaminated material has been scrapped up and disposed of at an NMOCD approved facility. Soil sampling dictated whether further excavation. See submitted closure report.

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: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Kerry Egan		Approved by Environmental Specialist:	
Title: Environmental Compliance Coordinator		Approval Date:	Expiration Date:
E-mail Address: KEgan@lucid-energy.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6/14/2018 Phone: 575-810-6021			

* Attach Additional Sheets If Necessary

2RP-4654

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
C 01648	C	ED		2	3	29	23S	28E		583667	3571184*	778	65	15	50
C 02037	C	ED		2	3	29	23S	28E		583667	3571184*	778	260		
C 00108	CUB	ED		1	1	4	29	23S	28E	583974	3571285*	956	152	10	142
C 04037 POD1	C	ED		4	3	2	31	23S	28E	582576	3569872	1145	99	60	39
C 03706 POD1	C	ED		3	4	4	22	21S	27E	584939	3569812	1477	200		
C 03831 POD1	C	ED		4	3	1	33	23S	28E	584939	3569812	1477	300	52	248
C 04085 POD1	CUB	ED		1	4	1	31	23S	28E	582039	3570027	1594	250	200	50
C 00481	C	ED		3	2	1	33	23S	28E	585182	3570283*	1599	225	190	35
C 00519	C	ED		2	1	1	28	23S	28E	584970	3572100*	2183	250		
C 01731	C	ED		4	2	05	24S	28E		584483	3568367*	2230	80	30	50
C 00539	C	ED		3	3	3	21	23S	28E	584767	3572308*	2234	28	6	22
C 03542 POD2	CUB	ED		2	4	4	20	23S	28E	584620	3572497	2328	30		
C 03542 POD1	CUB	ED		2	4	4	20	23S	28E	584615	3572530	2356	22	16	6
C 00650	C	ED		1	3	3	21	23S	28E	584767	3572508*	2407	32	12	20
C 01472	CUB	ED		2	3	2	28	23S	28E	585730	3571652	2476	162	10	152
C 00577	C	ED		3	1	3	21	23S	28E	584764	3572714*	2587	35	10	25
C 00578	C	ED		3	1	3	21	23S	28E	584764	3572714*	2587	28	18	10
C 00643	C	ED		3	1	3	21	23S	28E	584764	3572714*	2587	76	10	66
C 00911 POD2	C	ED		1	2	4	20	23S	28E	584359	3572911*	2617	69	34	35
C 00911 POD3	C	ED		1	2	4	20	23S	28E	584359	3572911*	2617	218	60	158
C 01938	C	ED		2	4	28	23S	28E		586085	3571205*	2620	80	3	77
C 00312	O	ED		3	3	1	20	23S	28E	583140	3573106*	2733	230	70	160
C 03732 POD1	C	ED		1	3	3	27	23S	28E	586321	3570929	2782	171	10	161
C 01477	CUB	ED		1	3	3	19	23S	28E	581532	3572484*	2920	127	10	117
C 02306	C	ED		3	2	04	24S	28E		585690	3568382*	2920	75	25	50
C 00010 CLW191724	O	ED		2	3	2	25	23S	27E	580926	3571666*	2943	259		

*UTM location was derived from PLSS - see Help

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-		Q Q Q			Sec	Tws	Rng	X	Y	Distance	Depth	Depth	Water
	Code	basin	64	16	4							Well	Water	Column
C 00544	C	ED	3	3	1	21	23S	28E	584762	3573120*	2953	27		
C 02848	CUB	ED	3	3	1	21	23S	28E	584762	3573120*	2953	130		
C 01244	C	ED		4	4	06	24S	28E	582860	3567543*	2957	109	70	39
C 00010	CUB	ED	1	2	2	25	23S	27E	581129	3572075*	2969	250	103	147
C 00010 CLW191759	O	ED	1	2	2	25	23S	27E	581129	3572075*	2969	259		
C 00010 ENLGD	CUB	ED	1	2	2	25	23S	27E	581129	3572075*	2969	259		

Average Depth to Water: 44 feet

Minimum Depth: 3 feet

Maximum Depth: 200 feet

Record Count: 32

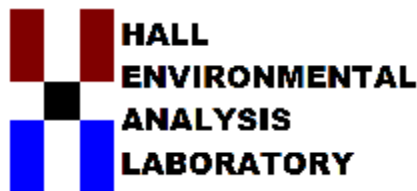
UTMNAD83 Radius Search (in meters):

Easting (X): 583587.63

Northing (Y): 3570409.58

Radius: 3000

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

March 26, 2018

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

RE: Road Runner TEG

OrderNo.: 1803726

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/13/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1803726**

Date Reported: **3/26/2018**

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-0.5

Project: Road Runner TEG

Collection Date: 3/8/2018 12:22:00 PM

Lab ID: 1803726-001

Matrix: SOIL

Received Date: 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	1400	75		mg/Kg	50	3/21/2018 5:24:07 AM	37082
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	780	9.6		mg/Kg	1	3/15/2018 7:40:01 PM	37032
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/15/2018 7:40:01 PM	37032
Surr: DNOP	109	70-130		%Rec	1	3/15/2018 7:40:01 PM	37032
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Surr: BFB	94.0	15-316		%Rec	1	3/15/2018 9:52:04 AM	37021
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Benzene	ND	0.025		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Toluene	ND	0.050		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Ethylbenzene	ND	0.050		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Xylenes, Total	ND	0.10		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Surr: 4-Bromofluorobenzene	88.4	80-120		%Rec	1	3/15/2018 9:52:04 AM	37021

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	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 **1803726**

Date Reported: **3/26/2018**

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-1

Project: Road Runner TEG

Collection Date: 3/8/2018 12:30:00 PM

Lab ID: 1803726-002

Matrix: SOIL

Received Date: 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	500	30		mg/Kg	20	3/17/2018 7:10:46 PM	37082
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	150	9.6		mg/Kg	1	3/22/2018 3:49:29 PM	37160
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/22/2018 3:49:29 PM	37160
Surr: DNOP	98.4	70-130		%Rec	1	3/22/2018 3:49:29 PM	37160
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Surr: BFB	89.4	15-316		%Rec	1	3/15/2018 11:02:12 AM	37021
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Benzene	ND	0.023		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Toluene	ND	0.047		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Ethylbenzene	ND	0.047		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Xylenes, Total	ND	0.094		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Surr: 4-Bromofluorobenzene	84.3	80-120		%Rec	1	3/15/2018 11:02:12 AM	37021

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	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 **1803726**

Date Reported: **3/26/2018**

CLIENT: Souder, Miller & Associates

Client Sample ID: L2-0.5

Project: Road Runner TEG

Collection Date: 3/8/2018 12:39:00 PM

Lab ID: 1803726-003

Matrix: SOIL

Received Date: 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	110	30		mg/Kg	20	3/17/2018 7:48:00 PM	37082
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	5600	89		mg/Kg	10	3/23/2018 11:45:58 PM	37160
Motor Oil Range Organics (MRO)	ND	440		mg/Kg	10	3/23/2018 11:45:58 PM	37160
Surr: DNOP	0	70-130	S	%Rec	10	3/23/2018 11:45:58 PM	37160
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Surr: BFB	89.4	15-316		%Rec	1	3/15/2018 12:12:51 PM	37021
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Benzene	ND	0.025		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Toluene	0.077	0.050		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Ethylbenzene	ND	0.050		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Xylenes, Total	ND	0.099		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Surr: 4-Bromofluorobenzene	85.7	80-120		%Rec	1	3/15/2018 12:12:51 PM	37021

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	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 **1803726**

Date Reported: **3/26/2018**

CLIENT: Souder, Miller & Associates

Client Sample ID: L2-1

Project: Road Runner TEG

Collection Date: 3/8/2018 12:45:00 PM

Lab ID: 1803726-004

Matrix: SOIL

Received Date: 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	110	30		mg/Kg	20	3/17/2018 8:00:25 PM	37082
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	23	9.8		mg/Kg	1	3/22/2018 4:38:22 PM	37160
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/22/2018 4:38:22 PM	37160
Surr: DNOP	99.0	70-130		%Rec	1	3/22/2018 4:38:22 PM	37160
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Surr: BFB	89.0	15-316		%Rec	1	3/15/2018 12:36:16 PM	37021
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Benzene	ND	0.024		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Toluene	ND	0.048		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Ethylbenzene	ND	0.048		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Xylenes, Total	ND	0.096		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Surr: 4-Bromofluorobenzene	84.6	80-120		%Rec	1	3/15/2018 12:36:16 PM	37021

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	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 **1803726**

Date Reported: **3/26/2018**

CLIENT: Souder, Miller & Associates

Client Sample ID: L3-0.5

Project: Road Runner TEG

Collection Date: 3/8/2018 12:58:00 PM

Lab ID: 1803726-005

Matrix: SOIL

Received Date: 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	92	30		mg/Kg	20	3/17/2018 8:12:50 PM	37082
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	820	10		mg/Kg	1	3/22/2018 5:02:51 PM	37160
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/22/2018 5:02:51 PM	37160
Surr: DNOP	97.7	70-130		%Rec	1	3/22/2018 5:02:51 PM	37160
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Surr: BFB	90.8	15-316		%Rec	1	3/15/2018 12:59:33 PM	37021
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Benzene	ND	0.024		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Toluene	ND	0.049		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Ethylbenzene	ND	0.049		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Xylenes, Total	ND	0.097		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Surr: 4-Bromofluorobenzene	86.6	80-120		%Rec	1	3/15/2018 12:59:33 PM	37021

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	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 **1803726**Date Reported: **3/26/2018****CLIENT:** Souder, Miller & Associates**Client Sample ID:** L3-1**Project:** Road Runner TEG**Collection Date:** 3/8/2018 1:00:00 PM**Lab ID:** 1803726-006**Matrix:** SOIL**Received Date:** 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	120	30		mg/Kg	20	3/17/2018 8:50:05 PM	37082
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	230	9.2		mg/Kg	1	3/22/2018 5:27:24 PM	37160
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/22/2018 5:27:24 PM	37160
Surr: DNOP	92.5	70-130		%Rec	1	3/22/2018 5:27:24 PM	37160
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Surr: BFB	89.3	15-316		%Rec	1	3/15/2018 1:22:49 PM	37021
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.093		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Benzene	ND	0.023		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Toluene	ND	0.046		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Ethylbenzene	ND	0.046		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Xylenes, Total	ND	0.093		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Surr: 4-Bromofluorobenzene	84.9	80-120		%Rec	1	3/15/2018 1:22:49 PM	37021

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	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 **1803726**

Date Reported: **3/26/2018**

CLIENT: Souder, Miller & Associates

Client Sample ID: SP

Project: Road Runner TEG

Collection Date: 3/8/2018 1:05:00 PM

Lab ID: 1803726-007

Matrix: SOIL

Received Date: 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	300	30		mg/Kg	20	3/17/2018 9:02:29 PM	37082
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	16000	980		mg/Kg	100	3/16/2018 1:59:33 PM	37032
Motor Oil Range Organics (MRO)	ND	4900		mg/Kg	100	3/16/2018 1:59:33 PM	37032
Surr: DNOP	0	70-130	S	%Rec	100	3/16/2018 1:59:33 PM	37032
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Surr: BFB	88.6	15-316		%Rec	1	3/15/2018 1:46:04 PM	37021
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Benzene	0.040	0.024		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Toluene	0.26	0.047		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Ethylbenzene	ND	0.047		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Xylenes, Total	0.14	0.095		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Surr: 4-Bromofluorobenzene	83.4	80-120		%Rec	1	3/15/2018 1:46:04 PM	37021

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	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#: 1803726

26-Mar-18

Client: Souder, Miller & Associates

Project: Road Runner TEG

Sample ID	MB-37082		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	37082		RunNo:	49884				
Prep Date:	3/17/2018		Analysis Date:	3/17/2018		SeqNo:	1614578		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-37082		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 37082		RunNo: 49884					
Prep Date:	3/17/2018		Analysis Date: 3/17/2018		SeqNo: 1614579		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
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
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#: 1803726

26-Mar-18

Client: Souder, Miller & Associates

Project: Road Runner TEG

Sample ID	1803726-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	L1-0.5	Batch ID:	37032	RunNo:	49816					
Prep Date:	3/14/2018	Analysis Date:	3/15/2018	SeqNo:	1612817	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	900	9.7	48.26	776.8	253	55.8	125			S
Surr: DNOP	4.9		4.826		102	70	130			

Sample ID	1803726-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	L1-0.5	Batch ID:	37032	RunNo:	49816					
Prep Date:	3/14/2018	Analysis Date:	3/15/2018	SeqNo:	1612818	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	860	10	49.80	776.8	164	55.8	125	4.64	20	S
Surr: DNOP	5.2		4.980		104	70	130	0	0	

Sample ID	LCS-37032	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	37032	RunNo:	49816					
Prep Date:	3/14/2018	Analysis Date:	3/15/2018	SeqNo:	1612829	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	70	130			
Surr: DNOP	5.4		5.000		107	70	130			

Sample ID	MB-37032	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	37032	RunNo:	49816					
Prep Date:	3/14/2018	Analysis Date:	3/15/2018	SeqNo:	1612830	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	70	130			

Sample ID	MB-37128	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	37128	RunNo:	49989					
Prep Date:	3/20/2018	Analysis Date:	3/22/2018	SeqNo:	1618593	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		90.9	70	130			

Sample ID	LCS-37128	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	37128	RunNo:	49989					
Prep Date:	3/20/2018	Analysis Date:	3/22/2018	SeqNo:	1618637	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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

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#: 1803726

26-Mar-18

Client: Souder, Miller & Associates

Project: Road Runner TEG

Sample ID	LCS-37128			SampType:	LCS			TestCode:	EPA Method 8015M/D: Diesel Range Organics		
Client ID:	LCSS			Batch ID:	37128			RunNo:	49989		
Prep Date:	3/20/2018			Analysis Date:	3/22/2018			SeqNo:	1618637 Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.5		5.000		90.8	70	130				

Sample ID	LCS-37160		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 37160		RunNo: 49989					
Prep Date:	3/21/2018		Analysis Date: 3/22/2018		SeqNo: 1618801		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	78.3	70	130			
Surr: DNOP	4.2		5.000		84.7	70	130			

Sample ID	MB-37160	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	37160		RunNo:	49989				
Prep Date:	3/21/2018	Analysis Date:	3/22/2018		SeqNo:	1618802	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	9.2		10.00		92.1	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
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#: 1803726

26-Mar-18

Client: Souder, Miller & Associates

Project: Road Runner TEG

Sample ID	MB-37021		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 37021		RunNo: 49818					
Prep Date:	3/14/2018		Analysis Date: 3/15/2018		SeqNo: 1612571		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.8	15	316			

Sample ID	LCS-37021		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 37021		RunNo: 49818					
Prep Date:	3/14/2018		Analysis Date: 3/15/2018		SeqNo: 1612572		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	1100		1000		108	15	316			

Sample ID	1803726-002AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	L1-1		Batch ID: 37021		RunNo: 49818					
Prep Date:	3/14/2018		Analysis Date: 3/15/2018		SeqNo: 1612575		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.39	0	124	77.8	128			
Surr: BFB	1000		975.6		105	15	316			

Sample ID	1803726-002AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	L1-1		Batch ID:	37021		RunNo:	49818				
Prep Date:	3/14/2018		Analysis Date:	3/15/2018		SeqNo:	1612576		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	29	4.8	23.79	0	122	77.8	128	4.13	20		
Surr: BFB	990		951.5		104	15	316	0	0		

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1803726

26-Mar-18

Client: Souder, Miller & Associates

Project: Road Runner TEG

Sample ID MB-37021	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 37021		RunNo: 49818							
Prep Date: 3/14/2018	Analysis Date: 3/15/2018		SeqNo: 1612610		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.85		1.000		85.2	80	120			

Sample ID LCS-37021	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 37021		RunNo: 49818							
Prep Date: 3/14/2018	Analysis Date: 3/15/2018		SeqNo: 1612611		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.93	0.10	1.000	0	93.4	70.1	121			
Benzene	1.0	0.025	1.000	0	100	77.3	128			
Toluene	0.99	0.050	1.000	0	99.5	79.2	125			
Ethylbenzene	0.97	0.050	1.000	0	97.2	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	99.9	81.6	129			
Surr: 4-Bromofluorobenzene	0.90		1.000		90.4	80	120			

Sample ID 1803726-001AMS	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: L1-0.5	Batch ID: 37021		RunNo: 49818							
Prep Date: 3/14/2018	Analysis Date: 3/15/2018		SeqNo: 1612615		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.98	0.099	0.9901	0	99.0	56.9	130			
Benzene	1.1	0.025	0.9901	0	108	68.5	133			
Toluene	1.1	0.050	0.9901	0.01089	107	75	130			
Ethylbenzene	1.1	0.050	0.9901	0	108	79.4	128			
Xylenes, Total	3.3	0.099	2.970	0.03067	110	77.3	131			
Surr: 4-Bromofluorobenzene	0.88		0.9901		89.1	80	120			

Sample ID 1803726-001AMSD	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: L1-0.5	Batch ID: 37021		RunNo: 49818							
Prep Date: 3/14/2018	Analysis Date: 3/15/2018		SeqNo: 1612620		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.93	0.099	0.9852	0	94.8	56.9	130	4.79	20	
Benzene	1.0	0.025	0.9852	0	102	68.5	133	5.88	20	
Toluene	1.0	0.049	0.9852	0.01089	101	75	130	6.40	20	
Ethylbenzene	1.0	0.049	0.9852	0	102	79.4	128	6.37	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative 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#: 1803726

26-Mar-18

Client: Souder, Miller & Associates

Project: Road Runner TEG

Sample ID 1803726-001AMSD		SampType: MSD			TestCode: EPA Method 8021B: Volatiles					
Client ID: L1-0.5	Batch ID: 37021			RunNo: 49818						
Prep Date: 3/14/2018	Analysis Date: 3/15/2018			SeqNo: 1612620		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	3.1	0.099	2.956	0.03067	103	77.3	131	6.82	20	
Surr: 4-Bromofluorobenzene	0.87		0.9852		88.3	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative 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
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: 1803726

RcptNo: 1

Received By: Mandy Woods 3/13/2018 9:40:00 AM

Completed By: Dennis Suazo 3/13/2018 4:24:20 PM

Reviewed By: *822 03/14/18*

YMS

Dennis Suazo

Labeled By DDS

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 $>0^{\circ}\text{C}$ 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? Yes ☒ No ☐
(Note discrepancies on chain of custody)
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? Yes ☒ No ☐
(If no, notify customer for authorization.)

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

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

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	Not Present			

Turn-Around Time: 5 days from

Client: SMA - C'pard

Mailing Address:

Phone #: _____
email or Fax#: _____

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

Accreditation ☐ NELAP ☐ Other ☐

☐ EDD (Type) _____

Sample Request ID

50-17

42-1-

62-0.5

63-015

63-1

DC

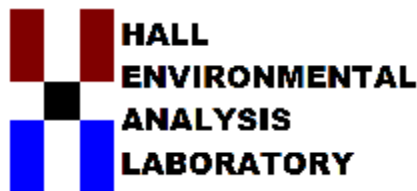
Relinquished by:

[Signature]

Belinda Kishall by:

Recommended by:

his server
5/13



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

May 03, 2018

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

RE: Roadrunner TEG

OrderNo.: 1804D28

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/26/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1804D28**

Date Reported: **5/3/2018**

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-1.5'

Project: Roadrunner TEG

Collection Date: 4/24/2018 9:57:00 AM

Lab ID: 1804D28-001

Matrix: SOIL

Received Date: 4/26/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	310	30		mg/Kg	20	5/2/2018 1:05:35 PM	37900
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	36	9.6		mg/Kg	1	4/30/2018 5:30:03 PM	37838
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/30/2018 5:30:03 PM	37838
Surr: DNOP	100	70-130		%Rec	1	4/30/2018 5:30:03 PM	37838
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/28/2018 1:06:37 AM	37823
Surr: BFB	92.1	15-316		%Rec	1	4/28/2018 1:06:37 AM	37823

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	Page 1 of 6
	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	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 **1804D28**

Date Reported: **5/3/2018**

CLIENT: Souder, Miller & Associates

Client Sample ID: L3-1.5'

Project: Roadrunner TEG

Collection Date: 4/24/2018 10:07:00 AM

Lab ID: 1804D28-002

Matrix: SOIL

Received Date: 4/26/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	700	30		mg/Kg	20	5/2/2018 1:42:48 PM	37900
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	200	9.2		mg/Kg	1	4/30/2018 5:52:12 PM	37838
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/30/2018 5:52:12 PM	37838
Surr: DNOP	93.1	70-130		%Rec	1	4/30/2018 5:52:12 PM	37838
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/28/2018 1:29:49 AM	37823
Surr: BFB	91.7	15-316		%Rec	1	4/28/2018 1:29:49 AM	37823

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	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#: 1804D28

03-May-18

Client: Souder, Miller & Associates

Project: Roadrunner TEG

Sample ID	MB-37900		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 37900		RunNo: 50986					
Prep Date:	5/2/2018		Analysis Date: 5/2/2018		SeqNo: 1656322		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-37900		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 37900		RunNo: 50986					
Prep Date:	5/2/2018		Analysis Date: 5/2/2018		SeqNo: 1656323		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.0	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804D28

03-May-18

Client: Souder, Miller & Associates

Project: Roadrunner TEG

Sample ID	LCS-37838		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 37838		RunNo: 50909					
Prep Date:	4/27/2018		Analysis Date: 4/30/2018		SeqNo: 1653303		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.0	70	130			
Surr: DNOP	4.8		5.000		96.3	70	130			

Sample ID	MB-37838	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID:	PBS	Batch ID: 37838		RunNo: 50909						
Prep Date:	4/27/2018	Analysis Date: 4/30/2018		SeqNo: 1653304		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	70	130			

Sample ID	LCS-37865		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 37865		RunNo: 50940					
Prep Date:	4/30/2018		Analysis Date: 5/1/2018		SeqNo: 1654117		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		5.000		78.0	70	130			

Sample ID	MB-37865		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 37865		RunNo: 50940					
Prep Date:	4/30/2018		Analysis Date: 5/1/2018		SeqNo: 1654118		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.2		10.00		82.1	70	130			

Sample ID	LCS-37864			SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	LCSS			Batch ID:	37864		RunNo:	50939			
Prep Date:	4/30/2018			Analysis Date:	5/1/2018		SeqNo:	1654570		Units:	%Rec
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.8		5.000		96.3	70	130				

Sample ID	MB-37864		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 37864		RunNo: 50939					
Prep Date:	4/30/2018		Analysis Date: 5/1/2018		SeqNo: 1654571		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.0	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804D28

03-May-18

Client: Souder, Miller & Associates

Project: Roadrunner TEG

Sample ID	LCS-37898			SampType:	LCS			TestCode:	EPA Method 8015M/D: Diesel Range Organics		
Client ID:	LCSS			Batch ID:	37898			RunNo:	50978		
Prep Date:	5/2/2018			Analysis Date:	5/2/2018			SeqNo:	1655172		
								Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.7		5.000		94.8	70	130				

Sample ID	MB-37898		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 37898		RunNo: 50978					
Prep Date:	5/2/2018		Analysis Date: 5/2/2018		SeqNo: 1655173		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.0	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative 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#: 1804D28

03-May-18

Client: Souder, Miller & Associates

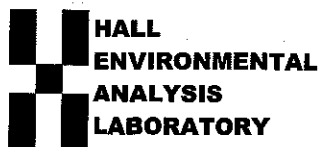
Project: Roadrunner TEG

Sample ID	MB-37823		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 37823		RunNo: 50883					
Prep Date:	4/26/2018		Analysis Date: 4/27/2018		SeqNo: 1652266		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		92.9	15	316			

Sample ID	LCS-37823		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 37823		RunNo: 50883					
Prep Date:	4/26/2018		Analysis Date: 4/27/2018		SeqNo: 1652267		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.4	75.9	131			
Surr: BFB	1000		1000		99.6	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 Quantitative 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
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: 1804D28

RcptNo: 1

Received By: Erin Melendrez

4/26/2018 9:15:00 AM

Completed By: Ashley Gallegos

4/26/2018 11:13:54 AM

Reviewed By: MW 4/26/18

labeled by: *[Signature]* 04/26/18

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 $>0^{\circ}\text{C}$ 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: *[Signature]* 04/26/18

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

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

A 3x3 grid with a central gray square and four black squares at the corners.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Official Website:

Loadrunner / TG

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Project Manager:

Austin Weyant

Full Name: Hustin
 Title: MRS

er: WLS

a. ☒ Yes

Sample Temperature: 4.8

Sample Request ID

servative
Type

HEAL No. 1804D28

8011	61-1.5'
"	63-1.5'

100

13-15

-002

Relinquished by:


inquired by: MSanjani

Date _____ Time _____

Remarks:

Remarks: lucid

Relinquished by:

Relinquished by: 

4/26/18
EN3

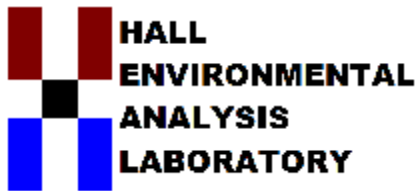
Time

Carrier	Date	Time
4/26/18	4/26/18	0915
EN19		

_____ submitted to Hall Environ

4/26/18 4/26/18 0915

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



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

June 06, 2018

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

RE: Roadrunner TEG

OrderNo.: 1805E19

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/25/2018 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,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1805E19**

Date Reported: **6/6/2018**

CLIENT: Souder, Miller & Associates

Client Sample ID: L3-1.75'

Project: Roadrunner TEG

Collection Date: 5/22/2018 10:10:00 AM

Lab ID: 1805E19-001

Matrix: SOIL

Received Date: 5/25/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	99	30		mg/Kg	20	6/1/2018 12:56:28 PM	38440
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: lrm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2018 7:31:59 AM	38349
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/31/2018 7:31:59 AM	38349
Surr: DNOP	97.7	70-130		%Rec	1	5/31/2018 7:31:59 AM	38349
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/30/2018 8:04:15 PM	38366
Surr: BFB	91.3	15-316		%Rec	1	5/30/2018 8:04:15 PM	38366

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	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#: 1805E19

06-Jun-18

Client: Souder, Miller & Associates

Project: Roadrunner TEG

Sample ID	MB-38440		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 38440		RunNo: 51683					
Prep Date:	6/1/2018		Analysis Date: 6/1/2018		SeqNo: 1686268		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-38440		SampType:	lcs		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	38440		RunNo:	51683				
Prep Date:	6/1/2018		Analysis Date:	6/1/2018		SeqNo:	1686269		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	94.7	90	110				

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
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#: 1805E19

06-Jun-18

Client: Souder, Miller & Associates

Project: Roadrunner TEG

Sample ID	MB-38349		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 38349		RunNo: 51598					
Prep Date:	5/29/2018		Analysis Date: 5/30/2018		SeqNo: 1683772		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	9.2		10.00		91.7	70	130			

Sample ID	LCS-38349		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 38349		RunNo: 51598					
Prep Date:	5/29/2018		Analysis Date: 5/31/2018		SeqNo: 1683773		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	103	70	130			
Surr: DNOP	4.4		5.000		88.0	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1805E19

06-Jun-18

Client: Souder, Miller & Associates

Project: Roadrunner TEG

Sample ID	MB-38366		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	38366		RunNo:	51603				
Prep Date:	5/29/2018		Analysis Date:	5/30/2018		SeqNo:	1682799		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		92.9	15	316				

Sample ID	LCS-38366		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 38366		RunNo: 51603					
Prep Date:	5/29/2018		Analysis Date: 5/30/2018		SeqNo: 1682800		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	75.9	131			
Surr: BFB	1100		1000		106	15	316			

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
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

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1805E19

ReptNo: 1

Received By: Isaiah Ortiz 5/25/2018 9:15:00 AM

Completed By: Erin Melendrez 5/25/2018 10:00:05 AM

Reviewed By:

Labeled By: JTB 05/25/18

IO

UAG

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 $>0^{\circ}\text{C}$ 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? Yes ☒ No ☐

(Note discrepancies on chain of custody)

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? Yes ☒ No ☐

(If no, notify customer for authorization)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.9	Good	Yes			

