Souder, Miller & Associates♦201 S. Halagueno St.♦Carlsbad, NM 88220
(575) 689-7040

April 2, 2018

SMA #5E26084, BG12

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

APPROVED
By Olivia Yu at 3:52 pm, Apr 17, 2018

NMOCD grants closure to 1RP-5002.

RE: LETTER REPORT SUMMARIZING THE ROJO TORO HYDROSTATIC TEST WATER RELEASE (1RP-5002), LEA COUNTY, NEW MEXICO

Dear Ms. Yu:

Souder, Miller & Associates (SMA) is submitting this letter report to summarize the March 26, 2018 response activities at the Rojo Toro Hydrostatic test water release site. The site is located in Section 15 T24S R34E, Lea County, New Mexico, on private land.

1.0 SUMMARY OF FIELD ACTIVITIES

On March 26, 2018, SMA responded to a request to conduct soil sampling of a fresh water release at the Rojo Toro pipeline. The release occurred during hydrostatic testing of a newly installed 24-inch pipeline. The pipeline ruptured causing approximately 8000 barrels of fresh water to be released into the right of way (ROW).

SMA collected four discreet sample locations selected from the visually impacted area, as well as two background samples, for a total of seven soil samples. Sample ID "Source" represents the point of release and was collected from the bottom of the pipeline repair excavation at a depth of seven feet below ground surface (bgs). All other samples were collected at 0.5-foot depth, and sample L1 additionally at 1.0 foot depth.

The samples were collected in laboratory provided containers and submitted to Hall Environmental Analysis Laboratory in Albuquerque, NM. Samples were analyzed for chlorides (EPA Method 300), GRO, DRO, and MRO (EPA Method 8015), and BTEX (EPA Method 8021). The laboratory report is included in Appendix A.

2.0 CONCLUSION AND RECOMMENDATION

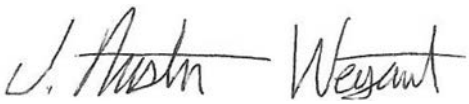
According to the laboratory results (see attached table), no hydrocarbons were detected, and chlorides are at acceptable levels compared to background.

Per State regulation, water with a TDS of 4000 ppm or higher requires a discharge permit from NMED. In this case, the hydrostatic test water had a TDS of less than 3800 mg/L. SMA recommends no further action at the Rojo Toro pipeline site. The results of the soil sampling event conducted on March 26, 2018 indicate that subsurface contaminant concentrations are below NMOCD regulatory standard limits for hydrocarbons and NMED standards for TDS.

The scope of our services consisted of the performance of soil sample collection and preparation of this summary report. All work has been performed in accordance with generally accepted professional environmental consulting practices for releases in the Permian Basin in New Mexico.

Souder, Miller and Associates appreciates the opportunity to provide environmental services to you. If you have any questions or comments concerning this report, please feel free to call me at 575.689.7040.

Sincerely,
Souder, Miller & Associates



Austin Weyant
Project Scientist

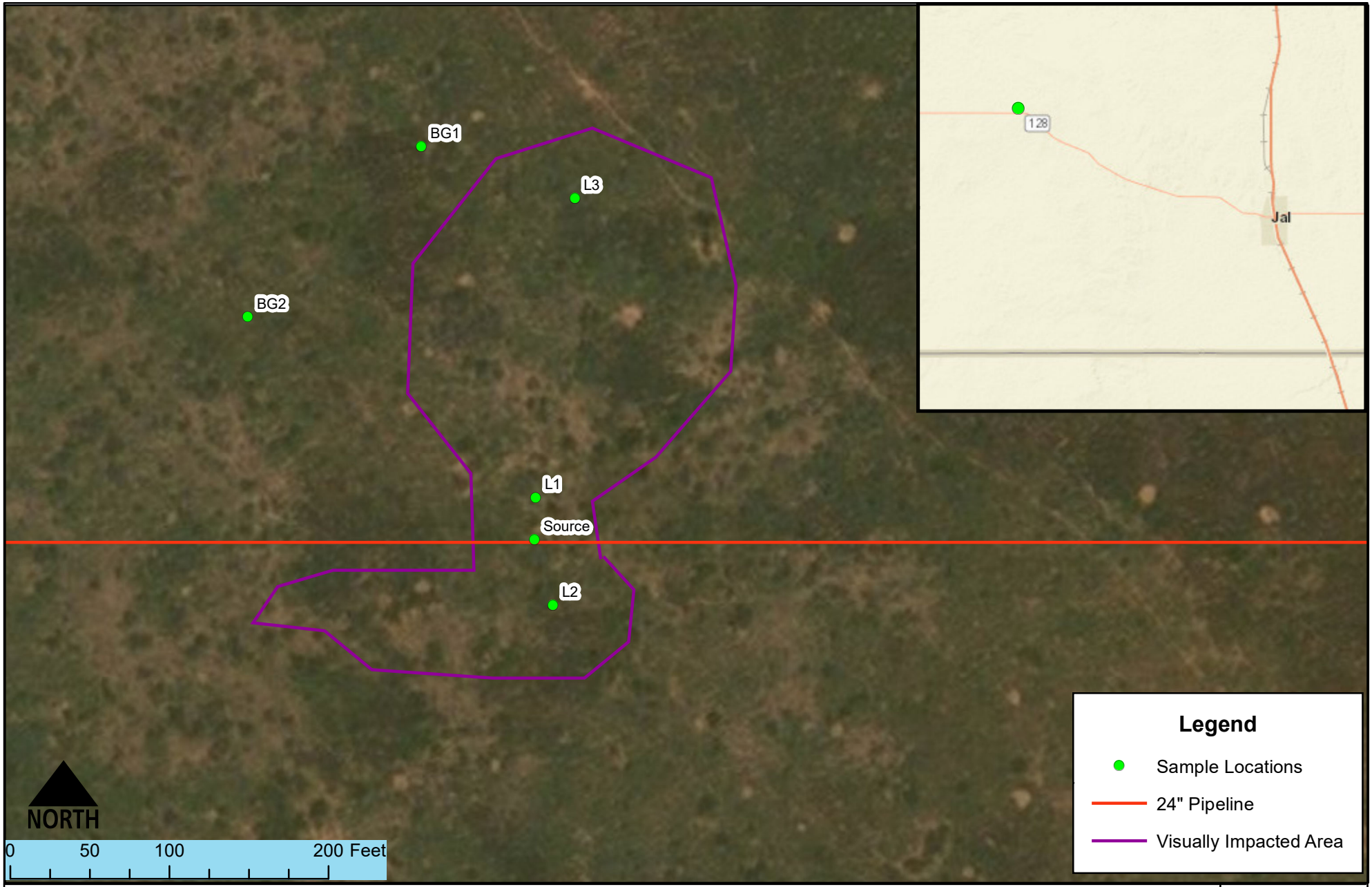
Shawna Chubbuck
Senior Scientist

Figures:
Figure 1: Site and Sample Location Map

Table:
Table 1: Laboratory Summary

Appendices
Appendix A: Hall Environmental Analysis Laboratory Reports
Appendix B: Initial and Final C-141

FIGURE 1
SITE AND SAMPLE LOCATION MAP



Site and Sample Location Map
Rojo Toro - Lucid
S 15-T24S-R34E, New Mexico

Figure 1

Date Saved: 4/2/2018

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

Drawn Heather Patterson
Checked
Approved

SMA
201 South Halaguena Street
Carlsbad, New Mexico 88221
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www.soudermiller.com
Serving the Southwest & Rocky Mountains

TABLE 1
LABORATORY SUMMARY

Rojo Toro Fresh Water Release

Table 1.

Sample Number on Figure 1	Sample Date	Depth (feet bgs)	Proposed Action	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	**Total TPH** mg/Kg	Cl- Laboratory mg/Kg
Source	3/28/2018	7	in-situ	<0.23	<0.024	<4.7	<9.3	<47	<62	130
L1	3/28/2018	0.5	in-situ	<0.23	<0.023	<4.7	<9.5	<48	<63	110
	3/28/2018	1	in-situ	<0.23	<0.024	<4.8	<8.6	<43	<57	110
L2	3/28/2018	0.5	in-situ	<0.23	<0.024	<4.8	<10	<50	<65	71
L3	3/28/2018	0.5	in-situ	<0.23	<0.023	<4.7	<10	<51	<66	45
BG1	3/28/2018	0.5	in-situ	<0.23	--	--	--	--	--	<30
BG2	3/28/2018	0.5	in-situ	<0.23	--	--	--	--	--	<30

"--" = Not Analyzed

APPENDIX A
HALL ENVIRONMENTAL ANALYSIS LABORATORY REPORTS

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

March 29, 2018

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

RE: Rojo Toro OrderNo.: 1803E04

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/27/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-0.5
Project: Rojo Toro
Collection Date: 3/26/2018 10:01:00 AM
Lab ID: 1803E04-001
Matrix: SOIL
Received Date: 3/27/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	71	30		mg/Kg	20	3/28/2018 4:02:06 PM	37291
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/28/2018 10:56:08 AM	37276
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/28/2018 10:56:08 AM	37276
Surr: DNOP	80.9	70-130		%Rec	1	3/28/2018 10:56:08 AM	37276
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/28/2018 12:59:31 PM	37266
Surr: BFB	95.6	15-316		%Rec	1	3/28/2018 12:59:31 PM	37266
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	3/28/2018 12:59:31 PM	37266
Benzene	ND	0.024		mg/Kg	1	3/28/2018 12:59:31 PM	37266
Toluene	ND	0.048		mg/Kg	1	3/28/2018 12:59:31 PM	37266
Ethylbenzene	ND	0.048		mg/Kg	1	3/28/2018 12:59:31 PM	37266
Xylenes, Total	ND	0.095		mg/Kg	1	3/28/2018 12:59:31 PM	37266
Surr: 4-Bromofluorobenzene	88.4	80-120		%Rec	1	3/28/2018 12:59:31 PM	37266

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-0.5
Project: Rojo Toro
Collection Date: 3/26/2018 10:10:00 AM
Lab ID: 1803E04-002
Matrix: SOIL
Received Date: 3/27/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	110	30		mg/Kg	20	3/28/2018 5:04:09 PM	37291
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/28/2018 11:23:22 AM	37276
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/28/2018 11:23:22 AM	37276
Surr: DNOP	83.6	70-130		%Rec	1	3/28/2018 11:23:22 AM	37276
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/28/2018 1:23:03 PM	37266
Surr: BFB	93.6	15-316		%Rec	1	3/28/2018 1:23:03 PM	37266
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.093		mg/Kg	1	3/28/2018 1:23:03 PM	37266
Benzene	ND	0.023		mg/Kg	1	3/28/2018 1:23:03 PM	37266
Toluene	ND	0.047		mg/Kg	1	3/28/2018 1:23:03 PM	37266
Ethylbenzene	ND	0.047		mg/Kg	1	3/28/2018 1:23:03 PM	37266
Xylenes, Total	ND	0.093		mg/Kg	1	3/28/2018 1:23:03 PM	37266
Surr: 4-Bromofluorobenzene	86.5	80-120		%Rec	1	3/28/2018 1:23:03 PM	37266

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-1
Project: Rojo Toro
Collection Date: 3/26/2018 10:12:00 AM
Lab ID: 1803E04-003
Matrix: SOIL
Received Date: 3/27/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	110	30		mg/Kg	20	3/28/2018 5:16:33 PM	37291
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	3/28/2018 11:50:35 AM	37276
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	3/28/2018 11:50:35 AM	37276
Surr: DNOP	83.7	70-130		%Rec	1	3/28/2018 11:50:35 AM	37276
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/28/2018 1:46:39 PM	37266
Surr: BFB	91.9	15-316		%Rec	1	3/28/2018 1:46:39 PM	37266
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	3/28/2018 1:46:39 PM	37266
Benzene	ND	0.024		mg/Kg	1	3/28/2018 1:46:39 PM	37266
Toluene	ND	0.048		mg/Kg	1	3/28/2018 1:46:39 PM	37266
Ethylbenzene	ND	0.048		mg/Kg	1	3/28/2018 1:46:39 PM	37266
Xylenes, Total	ND	0.096		mg/Kg	1	3/28/2018 1:46:39 PM	37266
Surr: 4-Bromofluorobenzene	85.6	80-120		%Rec	1	3/28/2018 1:46:39 PM	37266

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: Source 7'
Project: Rojo Toro
Collection Date: 3/26/2018 10:25:00 AM
Lab ID: 1803E04-004 **Matrix:** SOIL **Received Date:** 3/27/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	130	30		mg/Kg	20	3/28/2018 5:28:58 PM	37291
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/28/2018 12:17:40 PM	37276
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/28/2018 12:17:40 PM	37276
Surr: DNOP	83.8	70-130		%Rec	1	3/28/2018 12:17:40 PM	37276
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/28/2018 2:10:13 PM	37266
Surr: BFB	91.2	15-316		%Rec	1	3/28/2018 2:10:13 PM	37266
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	3/28/2018 2:10:13 PM	37266
Benzene	ND	0.024		mg/Kg	1	3/28/2018 2:10:13 PM	37266
Toluene	ND	0.047		mg/Kg	1	3/28/2018 2:10:13 PM	37266
Ethylbenzene	ND	0.047		mg/Kg	1	3/28/2018 2:10:13 PM	37266
Xylenes, Total	ND	0.095		mg/Kg	1	3/28/2018 2:10:13 PM	37266
Surr: 4-Bromofluorobenzene	85.1	80-120		%Rec	1	3/28/2018 2:10:13 PM	37266

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-0.5
Project: Rojo Toro
Collection Date: 3/26/2018 10:20:00 AM
Lab ID: 1803E04-005 **Matrix:** SOIL **Received Date:** 3/27/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	45	30		mg/Kg	20	3/28/2018 5:41:23 PM	37291
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/28/2018 12:46:52 PM	37276
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/28/2018 12:46:52 PM	37276
Surr: DNOP	86.6	70-130		%Rec	1	3/28/2018 12:46:52 PM	37276
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/28/2018 2:33:48 PM	37266
Surr: BFB	94.6	15-316		%Rec	1	3/28/2018 2:33:48 PM	37266
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.093		mg/Kg	1	3/28/2018 2:33:48 PM	37266
Benzene	ND	0.023		mg/Kg	1	3/28/2018 2:33:48 PM	37266
Toluene	ND	0.047		mg/Kg	1	3/28/2018 2:33:48 PM	37266
Ethylbenzene	ND	0.047		mg/Kg	1	3/28/2018 2:33:48 PM	37266
Xylenes, Total	ND	0.093		mg/Kg	1	3/28/2018 2:33:48 PM	37266
Surr: 4-Bromofluorobenzene	86.6	80-120		%Rec	1	3/28/2018 2:33:48 PM	37266

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BG1
Project: Rojo Toro
Collection Date: 3/26/2018 10:30:00 AM
Lab ID: 1803E04-006
Matrix: SOIL
Received Date: 3/27/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	3/28/2018 6:55:50 PM	37300

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BG2
Project: Rojo Toro
Collection Date: 3/26/2018 10:34:00 AM
Lab ID: 1803E04-007
Matrix: SOIL
Received Date: 3/27/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	3/28/2018 7:08:14 PM	37300

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1803E04**

29-Mar-18

Client: Souder, Miller & Associates

Project: Rojo Toro

Sample ID	**MB-37291**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**37291**	RunNo:	**50148**					
Prep Date:	**3/28/2018**	Analysis Date:	**3/28/2018**	SeqNo:	**1624854**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-37291**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**37291**	RunNo:	**50148**					
Prep Date:	**3/28/2018**	Analysis Date:	**3/28/2018**	SeqNo:	**1624855**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	98.9	90	110			

Sample ID	**MB-37300**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**37300**	RunNo:	**50148**					
Prep Date:	**3/28/2018**	Analysis Date:	**3/28/2018**	SeqNo:	**1624885**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-37300**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**37300**	RunNo:	**50148**					
Prep Date:	**3/28/2018**	Analysis Date:	**3/28/2018**	SeqNo:	**1624886**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1803E04**

29-Mar-18

Client: Souder, Miller & Associates

Project: Rojo Toro

Sample ID	**LCS-37281**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**37281**		RunNo:	**50135**				
Prep Date:	**3/28/2018**	Analysis Date:	**3/28/2018**		SeqNo:	**1623858**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		88.5	70	130			

Sample ID	**MB-37281**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**37281**		RunNo:	**50135**				
Prep Date:	**3/28/2018**	Analysis Date:	**3/28/2018**		SeqNo:	**1623859**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	70	130			

Sample ID	**LCS-37276**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**37276**		RunNo:	**50137**				
Prep Date:	**3/27/2018**	Analysis Date:	**3/28/2018**		SeqNo:	**1624041**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.3	70	130			
Surr: DNOP	4.3		5.000		86.2	70	130			

Sample ID	**MB-37276**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**37276**		RunNo:	**50137**				
Prep Date:	**3/27/2018**	Analysis Date:	**3/28/2018**		SeqNo:	**1624042**	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	8.3		10.00		82.9	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1803E04**

29-Mar-18

Client: Souder, Miller & Associates

Project: Rojo Toro

Sample ID	**MB-37266**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**37266**		RunNo:	**50162**				
Prep Date:	**3/27/2018**	Analysis Date:	**3/28/2018**		SeqNo:	**1624539**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.5	15	316			

Sample ID	**LCS-37266**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**37266**		RunNo:	**50162**				
Prep Date:	**3/27/2018**	Analysis Date:	**3/28/2018**		SeqNo:	**1624540**	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	113	75.9	131			
Surr: BFB	1100		1000		108	15	316			

Sample ID	**MB-37267**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**37267**		RunNo:	**50162**				
Prep Date:	**3/27/2018**	Analysis Date:	**3/28/2018**		SeqNo:	**1624553**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		92.6	15	316			

Sample ID	**LCS-37267**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**37267**		RunNo:	**50162**				
Prep Date:	**3/27/2018**	Analysis Date:	**3/28/2018**		SeqNo:	**1624554**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		105	15	316			

Sample ID	**RB**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**G50163**		RunNo:	**50163**				
Prep Date:		Analysis Date:	**3/28/2018**		SeqNo:	**1624630**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		90.8	15	316			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**G50163**		RunNo:	**50163**				
Prep Date:		Analysis Date:	**3/28/2018**		SeqNo:	**1624631**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		107	15	316			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1803E04**

29-Mar-18

Client: Souder, Miller & Associates

Project: Rojo Toro

Sample ID	**MB-37266**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**37266**	RunNo:	**50162**					
Prep Date:	**3/27/2018**	Analysis Date:	**3/28/2018**	SeqNo:	**1624576**	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	0.88		1.000		87.5	80	120			

Sample ID	**LCS-37266**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**37266**	RunNo:	**50162**					
Prep Date:	**3/27/2018**	Analysis Date:	**3/28/2018**	SeqNo:	**1624578**	Units:	**mg/Kg**			

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	84.9	70.1	121			
Benzene	0.97	0.025	1.000	0	96.6	77.3	128			
Toluene	0.97	0.050	1.000	0	97.0	79.2	125			
Ethylbenzene	0.97	0.050	1.000	0	96.9	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	98.9	81.6	129			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.0	80	120			

Sample ID	**MB-37267**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**37267**	RunNo:	**50162**					
Prep Date:	**3/27/2018**	Analysis Date:	**3/28/2018**	SeqNo:	**1624591**	Units:	**%Rec**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.86		1.000		86.4	80	120			

Sample ID	**LCS-37267**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**37267**	RunNo:	**50162**					
Prep Date:	**3/27/2018**	Analysis Date:	**3/28/2018**	SeqNo:	**1624592**	Units:	**%Rec**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.90		1.000		90.5	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: SMA-CARLSBAD Work Order Number: 1803E04 RcptNo: 1

Received By: Mandy Woods 3/27/2018 9:30:00 AM

Completed By: Isaiah Ortiz 3/27/2018 10:28:52 AM

Reviewed By: DDS 3/27/18

MW 3/27/18

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: Date:

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

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			

Chain-of-Custody Record

Client: SMA C'bad

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 48hr

Project Name: Roju Toro

Project #:

Project Manager: Austin Wessel

Sampler: Heather Patterson

On Ice: ☐ Yes ☐ No

Sample Temperature: 2.3°

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1803604	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F^-, Cl^-, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
3/26/18	10:01	Soil	L2-0.5	4 oz	—	001	X		X					X				
	10:10		L1-0.5			002	X		X					X				
	10:12		L1-1			003	X		X					X				
	10:25		Source 7'			004	X		X					X				
	10:20		L3-0.5'			005	X		X					X				
	10:30		BG1			006								X				
	10:34		BG2			007								X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/26/18	1500			3/26/18	1502
3/26/18	1900		Courier 3/27	3/27/18	0930

Remarks: Level 2

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

APPENDIX B
INITIAL AND FINAL C-141

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

OPERATOR

X Initial Report Final Report

Name of Company: Lucid Energy Delaware	Contact Kerry Egan
Address 201 South Fourth Street Artesia, NM 88210	Telephone No. 575 513-8988
Facility Name: Rojo Toro	Facility Type: Pipeline ROW

Surface Owner: Private (B. Madera)	Mineral Owner Fee	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the:	North/South Line	Feet from the:	East/West Line	County
O	15	24S	34E	1200	South Line	1500	East Line	Lea

Latitude 32.2136030° **Longitude** -103.454173°

NATURE OF RELEASE

Type of Release: Fresh Water	Volume of Release: 8,000 bbls	Volume Recovered: None
Source of Release: Pipeline rupture during hydrotest.	Date and Hour of Occurrence: 3/23/2018; 0200 – 0300 hrs	Date and Hour of Discovery: 3/23/2018; 0200 – 0300 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☒ Not Required	If YES, To Whom? Phone call with Jim Griswold on afternoon of 3/23/2018. Left a voicemail for Olivia Yu (District 1) on 3/23/2018.	
By Whom? Kerry Egan	Date and Hour 3/23/18; 4:00 – 5:00PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RECEIVED
By Olivia Yu at 1:04 pm, Mar 28, 2018

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
During a hydrostatic test of a gas line (still under construction, having never transported hydrocarbons), the pipeline failed, releasing approximately 8,000 bbls of fresh water. The water flowed along the pipeline ROW, and made it outside of the ROW into the pasture. The line was isolated as soon as possible to prevent any further release.

Describe Area Affected and Cleanup Action Taken.*
The location of the line rupture was in a low spot relative to the surrounding topography. The total area wetted by the fresh water was approximately 200-300 yds by 50-75 yds. Upon investigation, there were no observable indications of hydrocarbon or chloride contamination. Soil samples from the release point and within the "affected area" were collected to confirm there was no contamination related to the release of the fresh water.

Sample results will be submitted with a closure request and final C-141.

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: Kerry Egan	OIL CONSERVATION DIVISION
Printed Name: Kerry Egan	Approved by Environmental Specialist: dy
Title: Environmental Compliance Coordinator	Approval Date: 3/28/2018 Expiration Date:
E-mail Address: KEgan@lucid-energy.com	Conditions of Approval: see attached directive Attached ☑
Date: 3/27/2018 Phone: 575 810-6021	

* Attach Additional Sheets If Necessary

1RP-5002 nOY1808747895

fOY1808747316 pOY1808748392

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _3/27/2018_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-5002__ has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _4/28/2018_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

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

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

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

● Composite sampling is not generally allowed.

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

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

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

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

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

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

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