



**FOUNDATION**  
ENERGY MANAGEMENT, LLC

Foundation Energy Management, LLC  
16000 North Dallas Parkway, Suite 875  
Dallas, Texas 75248

September 14, 2015

Colorado Oil and Gas Corporation Commission  
1120 Lincoln Street, Suite 801  
Denver, Colorado 80203  
ATTN: Rob Young

**RE: SPILL ID# 442769**

Dear Rob Young,

Foundation Energy Management, LLC (Foundation) is submitting the sampling results for the Spill ID# 442769, Hilltop #32-5.

Below is a table that outlines what samples we took and their thresholds. Attached to this letter is the complete sampling report and a map of where the samples were taken.

Location of Sample	Depth of Sample	Tested for	Sample Taken Date	Sample Result	Table 910-1 Standard
Background	24-36"	pH	8/31/2015	7.9	6-9
NW	24-36"	pH	8/31/2015	7.9	6-9
Middle	24-36"	pH	8/31/2015	7.3	6-9
South	24-36"	pH	8/31/2015	7.9	6-9
Background	24-36"	SAR	8/31/2015	0.26	< 12 <sup>^</sup> 5
NW	24-36"	SAR	8/31/2015	1.33	< 12 <sup>^</sup> 5
Middle	24-36"	SAR	8/31/2015	14.44	< 12 <sup>^</sup> 5
South	24-36"	SAR	8/31/2015	32.94	< 12 <sup>^</sup> 5
Background	24-36"	EC	8/31/2015	0.48	< 4 mmhos/cm or 2x Background
NW	24-36"	EC	8/31/2015	0.42	< 4 mmhos/cm or 2x Background
Middle	24-36"	EC	8/31/2015	1.14	< 4 mmhos/cm or 2x Background
South	24-36"	EC	8/31/2015	2.58	< 4 mmhos/cm or 2x Background

Please contact me at (918) 526-5591 or [cohair@foundationenergy.com](mailto:cohair@foundationenergy.com) if you have any questions.

Regards,

Caitlin O'Hair  
HSE/Regulatory Tech

**Tulsa Office**

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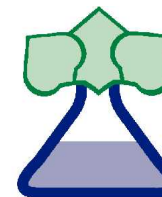
**Denver Office**

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# American Agricultural Laboratory, Inc.

40469  
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SUITE 875  
DALLAS TX 75248

210 East 1st / PO Box 370 / McCook, Nebraska 69001  
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NAME : FOUNDATION ENERGY

DATE RECEIVED: 08/31/2015

DATE REPORTED: 09/04/2015

## SOIL TEST RESULTS

LAB NUMBER	FIELD IDENTIFICATION	SAMPLE IDENTIFICATION	Depth Inches	pH		LIME REC T/A 60% ECCE		EL	SOLUBLE SALTS mod. SP mmhos/cm	OM LOI %	NITRATE-N (FIA)		PHOSPHORUS				
				1 : 1 Soil	Buffer Woodruff	Legume	Non Legume				ppm	lbs/A	P1 ppm	Bicarb ppm	P2 ppm	M2 ppm	M3 ppm
1299552	HILLTOP 32 5	BACKGROUND	24-36	7.9				H	0.48								
1299553	HILLTOP 32 5	NW	24-36	7.9				H	0.42								
1299554	HILLTOP 32 5	MIDDLE	24-36	7.3				N	1.14								
1299555	HILLTOP 32 5	SOUTH	24-36	7.9				N	2.58								

LAB NUMBER	SULFATE-S Ca-P ppm	NH4OAc (Exchangeable)				DTPA				BORON Sorbitol ppm	EST. CATION EXCHANGE CAPACITY (CEC) me/100g	% SATURATION					
		K ppm	Ca ppm	Mg ppm	Na ppm	Zn ppm	Fe ppm	Mn ppm	Cu ppm			BASE	H	Ca	Mg	K	Na
1299552										0.3							
1299553										0.3							
1299554										0.5							
1299555										1.4							

LAB NUMBER	SOLUBLE (SAT. EXT.)			SODIUM ADSORPTION RATIO (SAR)	EXCH. SODIUM PERCENT (ESP)	GYPSUM REQ T/A	PARTICLE SIZE ANALYSIS				CHLORIDE		EXCH. NH4-N		ALUMINUM ppm	TOTAL N %
	Ca me/L	Mg me/L	Na me/L				SAND %	SILT %	CLAY %	SOIL TEXTURE	ppm	lbs/A	ppm	lbs/A		
1299552	2.90	0.53	0.34	0.26	1	0.0										
1299553	2.39	0.34	1.55	1.33	1	0.0										
1299554	2.49	0.72	18.30	14.44	20	0.6										
1299555	5.86	1.33	62.46	32.94	48	0.9										

## SUGGESTED FERTILIZER RECOMMENDATIONS

LAB NUMBER	FIELD IDENTIFICATION	SAMPLE IDENTIFICATION	CROP TO BE GROWN	YIELD GOAL	N lbs/A	P2O5 lbs/A	K2O lbs/A	S lbs/A	Zn lbs/A	MgO lbs/A	Fe lbs/A	Mn lbs/A	Cu lbs/A	B lbs/A	Cl lbs/A
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Analysis By: American Agricultural Lab

Recommendations By: American Agricultural Lab

Name: Greg Mekelburg  
Address: 6654 Cty Rd 44  
Kama Colo 80759  
Phone: 970 597 2577

Acct #: \_\_\_\_\_

# CHAIN OF CUSTODY FORM

Olsen's Agricultural Laboratory

210 East 1st Street / PO Box 370

McCook, NE 69001

Phone (308) 345-3670

Fax (308) 345-7880



Invoice to: Greg Mekelburg  
Results to: Greg Mekelburg  
G.Mekelburg@gmail.com

Project Name: Hilltop 32-5  
Project Location: Foundation  
Contact Name: Greg  
Samplers Name: Greg Mekelburg

## ANALYSES REQUESTED

Date Sampled	Time Sampled	Sample Identification	Number of Containers	PH	SAR	EC									Remarks
8-27-14		Hilltop 32-5 Background	1	x	x	x									
		Hilltop 32-5 NW	1	x	x	x									
		Hilltop 32-5 Middle	1	x	x	x									
		Hilltop 32-5 South	1	x	x	x									

Date: 8-27-14 Time: \_\_\_\_\_ Relinquished by (print): Greg Mekelburg Signature: Greg Mekelburg  
Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received for lab by (print): \_\_\_\_\_ Signature: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_ Relinquished by (print): \_\_\_\_\_ Signature: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by (print): \_\_\_\_\_ Signature: \_\_\_\_\_

PH SAR  
EC

8-27-15

Foundation soil samples  
Hilltop 32-5

- 1 Background N 39.99954  
W102.43800
- 2 NW N 39.99947  
W102.43790
- 3 Middle N 39.99923  
W102.43781
- 4 South N 39.99913  
W102.43771

