

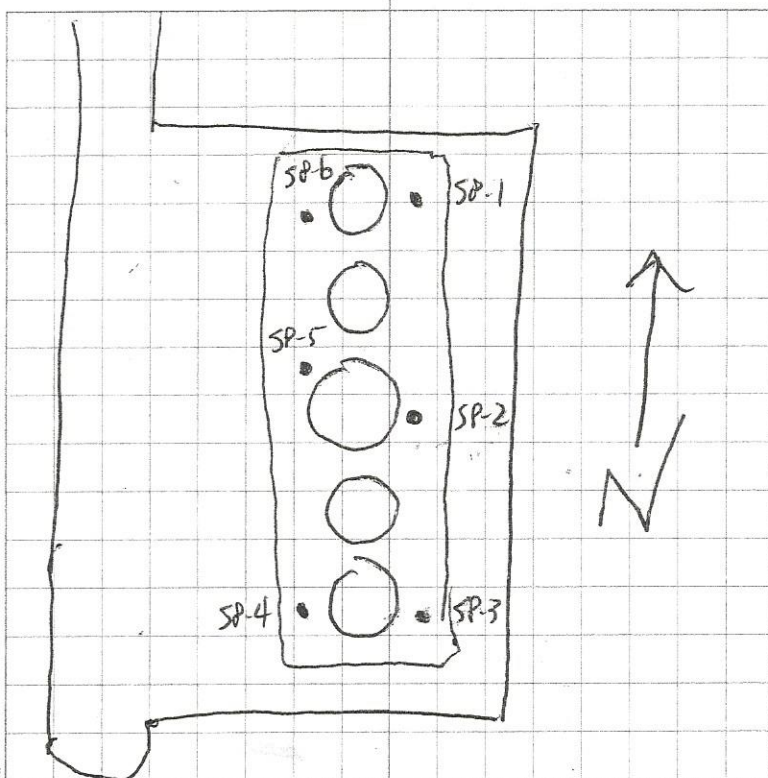
10/2/14 Cloudy, Windy
+ Warm 55°

Survey boat is outside
at the SWD to
install Super Hob +
Sample, inside the
Bank Berm

Installed six Super
holes to the depth of
one foot. Field tested
Samples 2 + 4

Sample	CT	Time
SP-2	1260 ppm	0830
SP-4	4600 ppm	0855

Mapped out the site
using the Trimble
JUNO 3D, SITE, Banks
+ Sample points!



TOOK PHOTOS of
SWD

Samples were properly
preserved + taken to
Cardinal Lab. to be
analyzed for BTEX, TPH
+ Chlorides

Rite in the Rain



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 27, 2014

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: SILVER SPIKE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 10/22/14 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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Analytical Results For:

Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received: 10/22/2014
 Reported: 10/27/2014
 Project Name: SILVER SPIKE ENERGY
 Project Number: SSE-14-001
 Project Location: HOBBS, NM

Sampling Date: 10/21/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP-1 1 FT BGS (H403237-01)**BTEX 8021B**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/22/2014	ND	1.88	94.1	2.00	3.68	
Toluene*	<0.050	0.050	10/22/2014	ND	1.88	93.8	2.00	3.96	
Ethylbenzene*	0.095	0.050	10/22/2014	ND	1.88	94.1	2.00	4.16	
Total Xylenes*	0.259	0.150	10/22/2014	ND	5.50	91.7	6.00	4.24	
Total BTEX	0.354	0.300	10/22/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 123 % 61-154

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/22/2014	ND	400	100	400	0.00	

TPH 8015M

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/22/2014	ND	203	101	200	1.94	
DRO >C10-C28	<10.0	10.0	10/22/2014	ND	205	102	200	2.91	

Surrogate: 1-Chlorooctane 112 % 47.2-157

Surrogate: 1-Chlorooctadecane 121 % 52.1-176

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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Received: 10/22/2014
 Reported: 10/27/2014
 Project Name: SILVER SPIKE ENERGY
 Project Number: SSE-14-001
 Project Location: HOBBS, NM

Sampling Date: 10/21/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP-2 1 FT BGS (H403237-02)

BTEX 8021B		mg/kg		Analyzed By: MS		S-04			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/22/2014	ND	1.88	94.1	2.00	3.68	
Toluene*	<0.050	0.050	10/22/2014	ND	1.88	93.8	2.00	3.96	
Ethylbenzene*	0.310	0.050	10/22/2014	ND	1.88	94.1	2.00	4.16	
Total Xylenes*	1.12	0.150	10/22/2014	ND	5.50	91.7	6.00	4.24	
Total BTEX	1.43	0.300	10/22/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 267 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP		S-06			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1360	16.0	10/22/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS		S-06			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	210	50.0	10/22/2014	ND	203	101	200	1.94	
DRO >C10-C28	6930	50.0	10/22/2014	ND	205	102	200	2.91	

Surrogate: 1-Chlorooctane 209 % 47.2-157

Surrogate: 1-Chlorooctadecane 217 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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Received: 10/22/2014
 Reported: 10/27/2014
 Project Name: SILVER SPIKE ENERGY
 Project Number: SSE-14-001
 Project Location: HOBBS, NM

Sampling Date: 10/21/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP-3 1 FT BGS (H403237-03)**BTEX 8021B**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/22/2014	ND	1.88	94.1	2.00	3.68	
Toluene*	<0.050	0.050	10/22/2014	ND	1.88	93.8	2.00	3.96	
Ethylbenzene*	<0.050	0.050	10/22/2014	ND	1.88	94.1	2.00	4.16	
Total Xylenes*	<0.150	0.150	10/22/2014	ND	5.50	91.7	6.00	4.24	
Total BTEX	<0.300	0.300	10/22/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 105 % 61-154

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/22/2014	ND	400	100	400	0.00	

TPH 8015M

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/22/2014	ND	203	101	200	1.94	
DRO >C10-C28	<10.0	10.0	10/22/2014	ND	205	102	200	2.91	

Surrogate: 1-Chlorooctane 86.6 % 47.2-157

Surrogate: 1-Chlorooctadecane 93.3 % 52.1-176

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received: 10/22/2014
 Reported: 10/27/2014
 Project Name: SILVER SPIKE ENERGY
 Project Number: SSE-14-001
 Project Location: HOBBS, NM

Sampling Date: 10/21/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP-4 1 FT BGS (H403237-04)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.051	0.050	10/23/2014	ND	1.88	94.1	2.00	3.68	
Toluene*	0.494	0.050	10/23/2014	ND	1.88	93.8	2.00	3.96	
Ethylbenzene*	1.56	0.050	10/23/2014	ND	1.88	94.1	2.00	4.16	
Total Xylenes*	10.1	0.150	10/23/2014	ND	5.50	91.7	6.00	4.24	
Total BTEX	12.2	0.300	10/23/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 373 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4160	16.0	10/22/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	290	50.0	10/23/2014	ND	179	89.6	200	4.26	
DRO >C10-C28	3830	50.0	10/23/2014	ND	195	97.5	200	7.17	

Surrogate: 1-Chlorooctane 153 % 47.2-157

Surrogate: 1-Chlorooctadecane 205 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Safety & Environmental Solutions
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Received: 10/22/2014
 Reported: 10/27/2014
 Project Name: SILVER SPIKE ENERGY
 Project Number: SSE-14-001
 Project Location: HOBBS, NM

Sampling Date: 10/21/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP-5 1 FT BGS (H403237-05)

BTEX 8021B		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/22/2014	ND	1.88	94.1	2.00	3.68	
Toluene*	0.434	0.050	10/22/2014	ND	1.88	93.8	2.00	3.96	
Ethylbenzene*	2.14	0.050	10/22/2014	ND	1.88	94.1	2.00	4.16	
Total Xylenes*	4.08	0.150	10/22/2014	ND	5.50	91.7	6.00	4.24	
Total BTEX	6.65	0.300	10/22/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 409 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	10/22/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	294	50.0	10/23/2014	ND	179	89.6	200	4.26	
DRO >C10-C28	7520	50.0	10/23/2014	ND	195	97.5	200	7.17	

Surrogate: 1-Chlorooctane 177 % 47.2-157

Surrogate: 1-Chlorooctadecane 286 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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Received: 10/22/2014
 Reported: 10/27/2014
 Project Name: SILVER SPIKE ENERGY
 Project Number: SSE-14-001
 Project Location: HOBBS, NM

Sampling Date: 10/21/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP-6 1 FT BGS (H403237-06)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.221	0.050	10/22/2014	ND	1.88	94.1	2.00	3.68	
Toluene*	1.66	0.050	10/22/2014	ND	1.88	93.8	2.00	3.96	
Ethylbenzene*	3.17	0.050	10/22/2014	ND	1.88	94.1	2.00	4.16	
Total Xylenes*	14.7	0.150	10/22/2014	ND	5.50	91.7	6.00	4.24	
Total BTEX	19.7	0.300	10/22/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 458 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	10/22/2014	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	626	50.0	10/23/2014	ND	179	89.6	200	4.26	
DRO >C10-C28	7080	50.0	10/23/2014	ND	195	97.5	200	7.17	

Surrogate: 1-Chlorooctane 171 % 47.2-157

Surrogate: 1-Chlorooctadecane 263 % 52.1-176

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

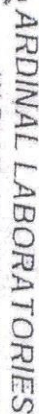
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240

(505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Page 9 of 9

District I
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District III
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District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 149144

CONDITIONS

Operator: PENROC OIL CORP P.O. Box 2769 Hobbs, NM 882412769	OGRID: 17213
	Action Number: 149144
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	10/5/2022