



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1211992  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1211992

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
--	--	---

Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	GOOSSEN 2-14
Doc ID	1211992

All Electric Logs Run

MEL
DIL
CNL/CDL
BHCS

Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	GOOSSEN 2-14
Doc ID	1211992

Tops

Name	Top	Datum
STOTLER	3490	-679
TARKIO	3564	-753
LANSING	4208	-1397
PAWNEE	4795	-1984
CHEROKEE	4840	-2029
MORROW	5032	-2221
MISS	5094	-2283
ST LOUIS	5212	-2401
SALEM	5400	-2589







# Cement Report

Customer <i>Falcon Exploration</i>	Lease No. <i>2-14</i>	Date <i>04-03-14</i>
Lease <i>Coosen</i>	Well # <i>2-14</i>	Service Receipt <i>1717-05635A</i>
Casing <i>5 1/2"</i>	Depth <i>5089'</i>	County <i>GRAV</i>
Job Type <i>5 1/2" Production</i>	Formation	Legal Description <i>14-28-30</i>
		State <i>KS</i>

Pipe Data		Perforating Data		Cement Data
Casing size <i>5 1/2"</i>	Tubing Size	Shots/Ft		Lead <i>50s/cs - AA-2</i> <i>12ppg - 25 Bbls</i>
Depth <i>5089'</i>	Depth	From	To	
Volume	Volume	From	To	Tail in <i>220sk</i> <i>14,8ppg - 1.51 cuft/sk</i> <i>15% 12.6g 1.0% salt</i> <i>16% C-15</i> <i>1/4" Deform 5 sk Bilsandite</i>
Max Press	Max Press	From	To	
Well Connection	Annulus Vol.	From	To	
Plug Depth <i>5089'</i>	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>0600</i>					<i>Called Rod</i>
<i>0805</i>					<i>On Location</i>
<i>0850</i>					<i>Safety Meeting</i>
					<i>On Bottom - Rig Up &amp; Circ.</i>
					<i>Drop Ball - Inflate Packer</i>
<i>1400</i>			<i>12</i>	<i>3</i>	<i>Pump 500gals of SuperPlex II</i>
<i>1420</i>			<i>25</i>		<i>Mix &amp; Pump Lead Cement</i> <i>12ppg 285cuft/sk. 16lb/gal/sk</i>
<i>1440</i>			<i>59</i>		<i>Mix &amp; Pump Tail Cement</i> <i>14.8ppg 1.51 cuft/sk</i> <i>220sk</i>
<i>1410</i>			<i>8</i>		<i>Mix &amp; Pump 30sk RAT Hole</i>
<i>1415</i>			<i>5</i>		<i>Mix &amp; Pump 20sk Monitor Hole</i>
<i>1500</i>			<i>123</i>		<i>Displace 123 Bbls</i>
<i>1530</i>	<i>2000</i>		<i>5</i>	<i>5</i>	<i>Land &amp; Latch Plug</i> <i>Released Plug Head</i> <i>Rack Up</i>

Service Units	<i>21755</i>	<i>38117-19919</i>	<i>30463-19566</i>	
Driver Names	<i>Rogan</i>	<i>Gabriel</i>	<i>Mario</i>	

*Chuck*  
Customer Representative

*Jeremy Rowlett*  
Station Manager

*Rogan Brown*  
Cementer  
Taylor Print

# DIAMOND TESTING

## General Information Report

### General Information

**Company Name** FALCON EXPLORATION, INC.  
**Contact** JASON MITCHELL  
**Well Name** GOOSSEN #2-14  
**Unique Well ID** DST #1, STOTLER, 3452-3540  
**Surface Location** SEC 14-28S-30W, GRAY CO. KS.  
**Field** RENEGADE SE  
**Well Type** Vertical  
**Test Type** CONVENTIONAL  
**Formation** DST #1, STOTLER, 3452-3540  
**Well Fluid Type** 02 Gas

**Representative** TIM VENTERS  
**Well Operator** FALCON EXPLORATION, INC.  
**Report Date** 2014/03/23  
**Prepared By** TIM VENTERS  
**Qualified By** DAVE WILLIAMS

**Start Test Date** 2014/03/22  
**Final Test Date** 2014/03/23

**Start Test Time** 22:07:00  
**Final Test Time** 10:06:00

### Test Recovery:

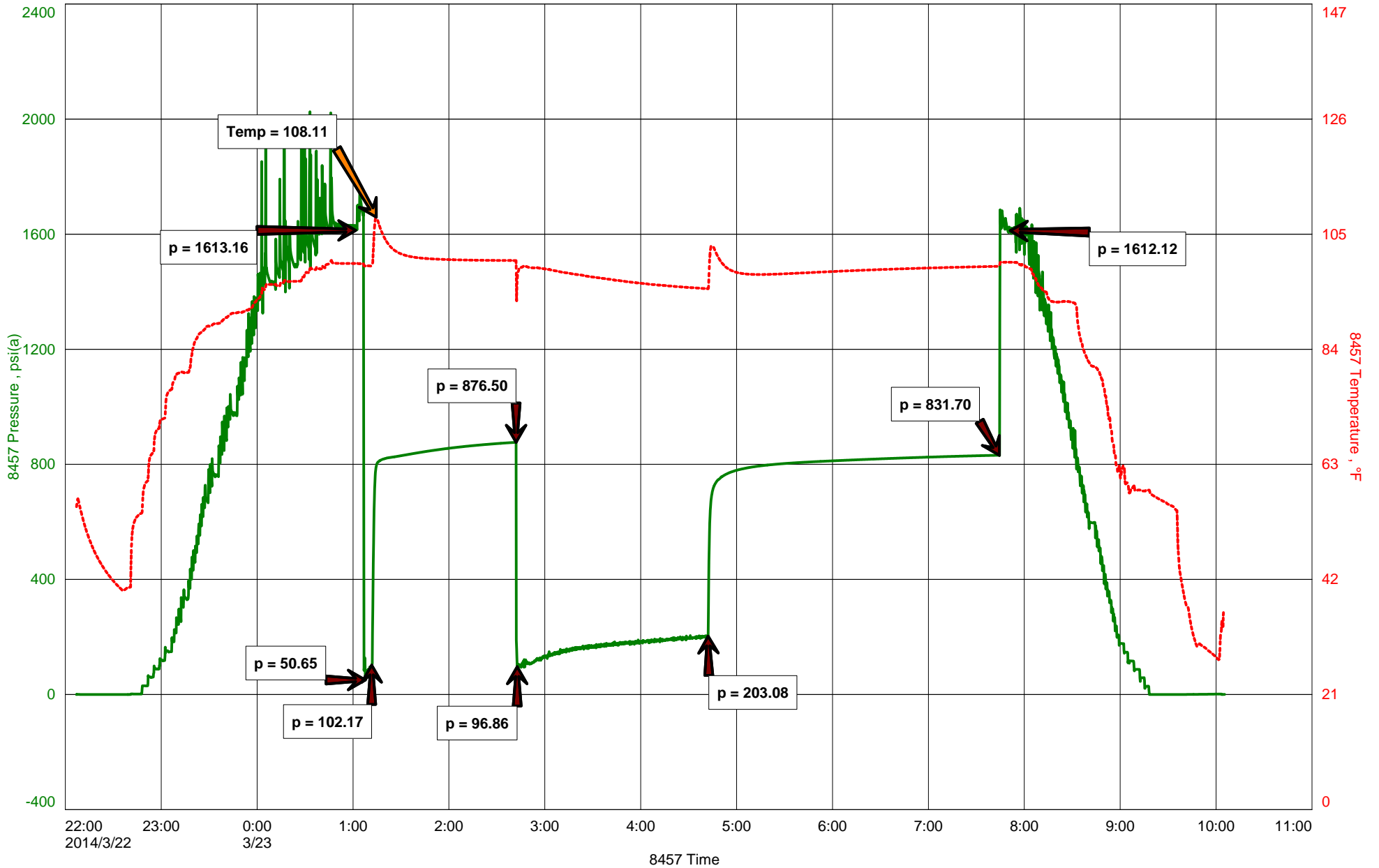
RECOVERED: 3040' GAS IN PIPE  
135' MUD  
245' SWCM, 5% WATER, 95% MUD  
380' TOTAL FLUID

TOOL SAMPLE: 6% GAS, 6% WATER, 88% MUD

CHLORIDES: 39,000 ppm  
PH: 6.0  
RW: .25 @ 66 deg.



# GOOSSEN #2-14





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: GOOSSEN2-14DST1

TIME ON: 22:07 3-22-14  
TIME OFF: 10:06 3-23-14

Company FALCON EXPLORATION, INC. Lease & Well No. GOOSSEN #2-14  
Contractor STERLING DRILLING CO. RIG #2 Charge to FALCON EXPLORATION, INC.  
Elevation 2811 KB Formation STOTLER Effective Pay \_\_\_\_\_ Ft. Ticket No. T322  
Date 3-23-14 Sec. 14 Twp. 28 S Range 30 W County GRAY State KANSAS  
Test Approved By DAVE WILLIAMS Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 1 Interval Tested from 3452 ft. to 3540 ft. Total Depth 3540 ft.  
Packer Depth 3447 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 3452 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 3433 ft. Recorder Number 8457 Cap. 10,000 P.S.I.  
Bottom Recorder Depth (Outside) 3537 ft. Recorder Number 11029 Cap. 5,025 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 43 Drill Collar Length 215 ft. I.D. 2 1/4 in.  
Weight 9.1 Water Loss 12.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 3,800 P.P.M. Drill Pipe Length 3204 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 2 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 24 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. <sup>64' DP IN ANCHOR</sup> Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: GOOD 2 INCH BLOW BUILDING, REACHING BOB 45 SEC. (NO BB)  
2nd Open: VERY STRONG BLOW, HITTING BOB INSTANTANEOUSLY. (1/4" BB)

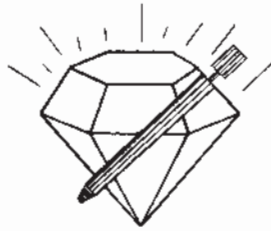
Recovered 3040 ft. of GAS IN PIPE  
Recovered 135 ft. of MUD  
Recovered 245 ft. of SWCM, 5% WATER, 95% MUD  
Recovered 380 ft. of TOTAL FLUID

Recovered _____ ft. of _____	CHLORIDES: 39,000 ppm	Price Job
Recovered _____ ft. of _____	PH: 6.0	Other Charges
Remarks: _____	RW: .25 @ 66 deg.	Insurance
TOOL SAMPLE: 6% GAS, 6% WATER, 88% MUD		Total

Time Set Packer(s) 1:06 AM <sup>A.M.</sup> P.M. Time Started Off Bottom 7:41 AM <sup>A.M.</sup> P.M. Maximum Temperature 108 deg.

Initial Hydrostatic Pressure..... (A) 1613 P.S.I.  
Initial Flow Period..... Minutes 5 (B) 51 P.S.I. to (C) 102 P.S.I.  
Initial Closed In Period..... Minutes 90 (D) 877 P.S.I.  
Final Flow Period..... Minutes 120 (E) 97 P.S.I. to (F) 203 P.S.I.  
Final Closed In Period..... Minutes 180 (G) 832 P.S.I.  
Final Hydrostatic Pressure..... (H) 1612 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



**DIAMOND TESTING**  
 P. O. Box 157  
**HOISINGTON, KANSAS 67544**  
 (316) 653-7550  
**GAS VOLUME REPORT**

Company FALCON EXPLORATION, INC. Lease & Well No. GOOSSEN #2-14  
 Date 3-23-14 Sec. 14 Twp. 28S Rge. 30W Location \_\_\_\_\_ County GRAY State KS  
 Drilling Contractor STERLING DRILLING CO. RIG #2 Formation STOTLER DST No. 1  
 Remarks: GAS TO SURFACE 4 MIN. INTO INITIAL FLOW PERIOD.

**INITIAL FLOW**

Time O'Clock	Orifice Size	Gauge	CF/D
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

**FINAL FLOW PSI**

Time O'Clock	Orifice Size	Gauge	CF/D
10	3/4 in.	12 in.	288,000
20	3/4 in.	20 in.	398,000
30	3/4 in.	24 in.	449,000
40	3/4 in.	26 in.	473,000
50	3/4 in.	27 in.	487,000
60	3/4 in.	28 in.	497,000
70	3/4 in.	29 in.	510,000
80	3/4 in.	30 in.	522,000
90	3/4 in.	30 in.	522,000
100	3/4 in.	30 in.	522,000
*110	3/4	30	522,000
120	3/4	30	522,000

\* TOOK SAMPLE

# DIAMOND TESTING

## General Information Report

### General Information

**Company Name** FALCON EXPLORATION, INC.  
**Contact** JASON MITCHELL  
**Well Name** GOOSSEN #2-14  
**Unique Well ID** DST #2, TARKIO, 3537-3580  
**Surface Location** SEC 14-28S-30W, GRAY CO. KS.  
**Field** RENEGADE SE  
**Well Type** Vertical  
**Test Type** CONVENTIONAL  
**Formation** DST #2, TARKIO, 3537-3580  
**Well Fluid Type** 02 Gas

**Representative** TIM VENTERS  
**Well Operator** FALCON EXPLORATION, INC.  
**Report Date** 2014/03/24  
**Prepared By** TIM VENTERS  
**Qualified By** DAVE WILLIAMS

**Start Test Date** 2014/03/23  
**Final Test Date** 2014/03/24

**Start Test Time** 18:21:00  
**Final Test Time** 03:31:00

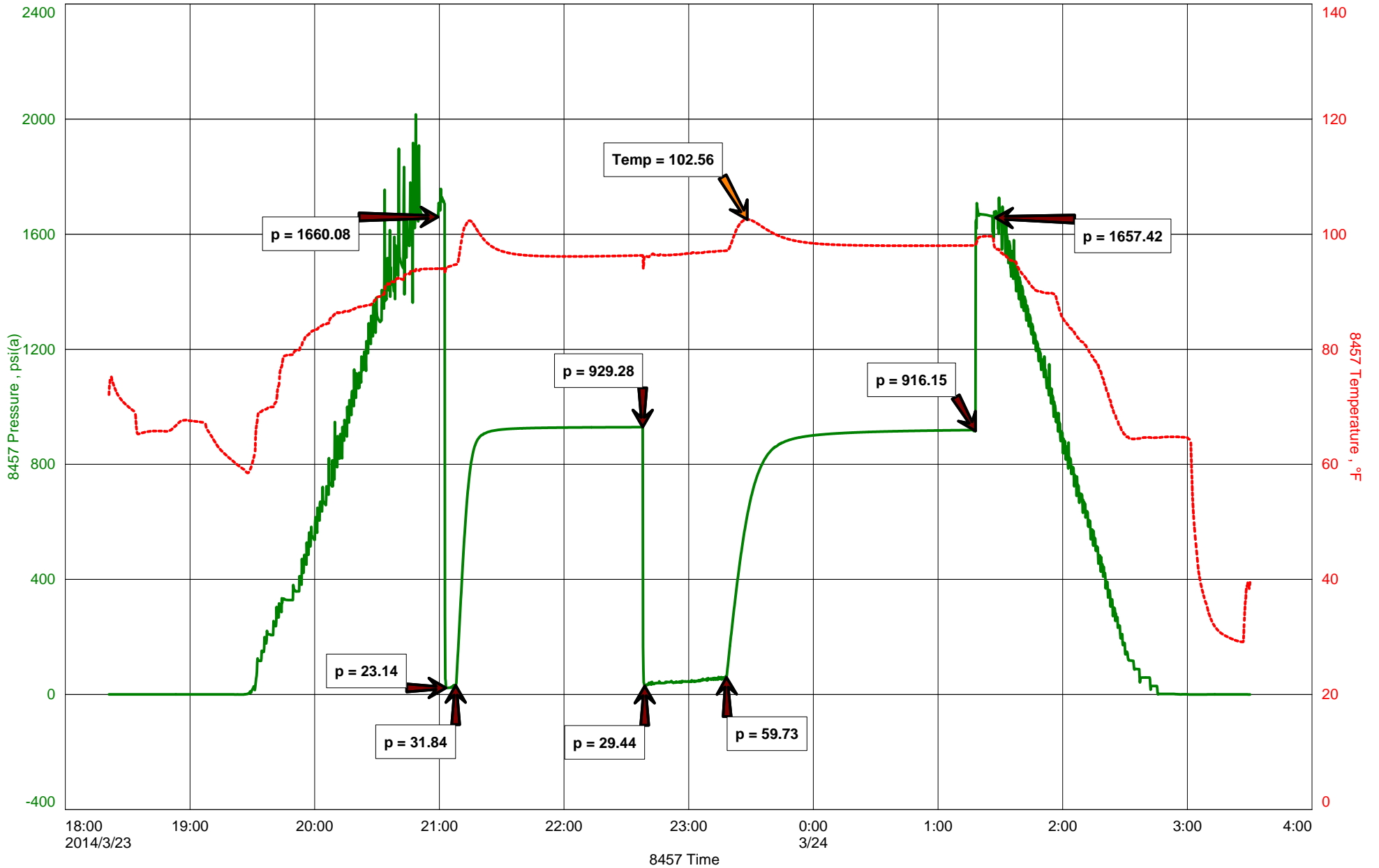
### Test Recovery:

**RECOVERED: 3375' GAS IN PIPE**  
70' MUD  
60' SWCM, 7% WATER, 93% MUD  
130' TOTAL FLUID

**TOOL SAMPLE: 10% GAS, 8% WATER, 82% MUD**

**CHLORIDES: 25,000 ppm**  
**PH: 7.0**  
**RW: .32 @ 66 deg.**

# GOOSSEN #2-14





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: GOOSSEN2-14DST2

TIME ON: 18:21 3-23-14  
TIME OFF: 03:31 3-24-14

Company FALCON EXPLORATION, INC. Lease & Well No. GOOSSEN #2-14  
Contractor STERLING DRILLING CO. RIG #2 Charge to FALCON EXPLORATION, INC.  
Elevation 2811 KB Formation TARKIO Effective Pay \_\_\_\_\_ Ft. Ticket No. T323  
Date 3-23-14 Sec. 14 Twp. 28 S Range 30 W County GRAY State KANSAS  
Test Approved By DAVE WILLIAMS Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 2 Interval Tested from 3537 ft. to 3580 ft. Total Depth 3580 ft.

Packer Depth 3532 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Packer Depth 3537 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 3518 ft. Recorder Number 8457 Cap. 10,000 P.S.I.

Bottom Recorder Depth (Outside) 3577 ft. Recorder Number 11029 Cap. 5,025 P.S.I.

Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 43 Drill Collar Length 215 ft. I.D. 2 1/4 in.

Weight 9.1 Water Loss 12.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.

Chlorides 3,800 P.P.M. Drill Pipe Length 3289 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number 2 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out NO Anchor Length 43 ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: GOOD 3 INCH BLOW BUILDING, REACHING BOB 45 SEC. (NO BB)

2nd Open: VERY STRONG BLOW, HITTING BOB INSTANTANEOUSLY. (NO BB)

Recovered 3375 ft. of GAS IN PIPE

Recovered 70 ft. of MUD

Recovered 60 ft. of SWCM, 7% WATER, 93% MUD

Recovered 130 ft. of TOTAL FLUID

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_ CHLORIDES: 25,000 ppm Price Job

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_ PH: 7.0 Other Charges

Remarks: \_\_\_\_\_ RW: .32 @ 66 deg. Insurance

TOOL SAMPLE: 10% GAS, 8% WATER, 82% MUD Total

Time Set Packer(s) 9:02 PM A.M. P.M. Time Started Off Bottom 1:17 AM A.M. P.M. Maximum Temperature 103 deg.

Initial Hydrostatic Pressure..... (A) 1660 P.S.I.

Initial Flow Period..... Minutes 5 (B) 23 P.S.I. to (C) 32 P.S.I.

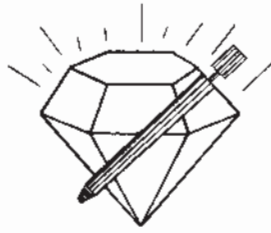
Initial Closed In Period..... Minutes 90 (D) 929 P.S.I.

Final Flow Period..... Minutes 40 (E) 29 P.S.I. to (F) 60 P.S.I.

Final Closed In Period..... Minutes 120 (G) 916 P.S.I.

Final Hydrostatic Pressure..... (H) 1657 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



**DIAMOND TESTING**  
 P. O. Box 157  
**HOISINGTON, KANSAS 67544**  
 (316) 653-7550  
**GAS VOLUME REPORT**

Company FALCON EXPLORATION, INC. Lease & Well No. GOOSSEN #2-14  
 Date 3-23-14 Sec. 14 Twp. 28S Rge. 30W Location \_\_\_\_\_ County GRAY State KS  
 Drilling Contractor STERLING DRILLING CO. RIG #2 Formation TARKIO DST No. 2  
 Remarks: GAS TO SURFACE 7 MIN. INTO FINAL FLOW PERIOD.

**INITIAL FLOW**

Time O'Clock	Orifice Size	Gauge	CF/D
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

**FINAL FLOW** IN. H2O

Time O'Clock	Orifice Size	Gauge	CF/D
10	1/2 in.	12 in.	21,900
20	1/2 in.	10 in.	19,900
*30	1/2 in.	6 in.	15,400
40	1/2 in.	4 in.	12,500
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

\* TOOK SAMPLE

# DIAMOND TESTING

## General Information Report

### General Information

**Company Name** FALCON EXPLORATION, INC.  
**Contact** JASON MITCHELL  
**Well Name** GOOSSEN #2-14  
**Unique Well ID** DST #3, TORONTO, 4094-4142  
**Surface Location** SEC 14-28S-30W, GRAY CO. KS.  
**Field** RENEGADE SE  
**Well Type** Vertical  
**Test Type** CONVENTIONAL  
**Formation** DST #3, TORONTO, 4094-4142  
**Well Fluid Type** 02 Gas

**Representative** TIM VENTERS  
**Well Operator** FALCON EXPLORATION, INC.  
**Report Date** 2014/03/26  
**Prepared By** TIM VENTERS  
**Qualified By** DAVE WILLIAMS

**Start Test Date** 2014/03/25  
**Final Test Date** 2014/03/25

**Start Test Time** 13:20:00  
**Final Test Time** 23:57:00

### Test Recovery:

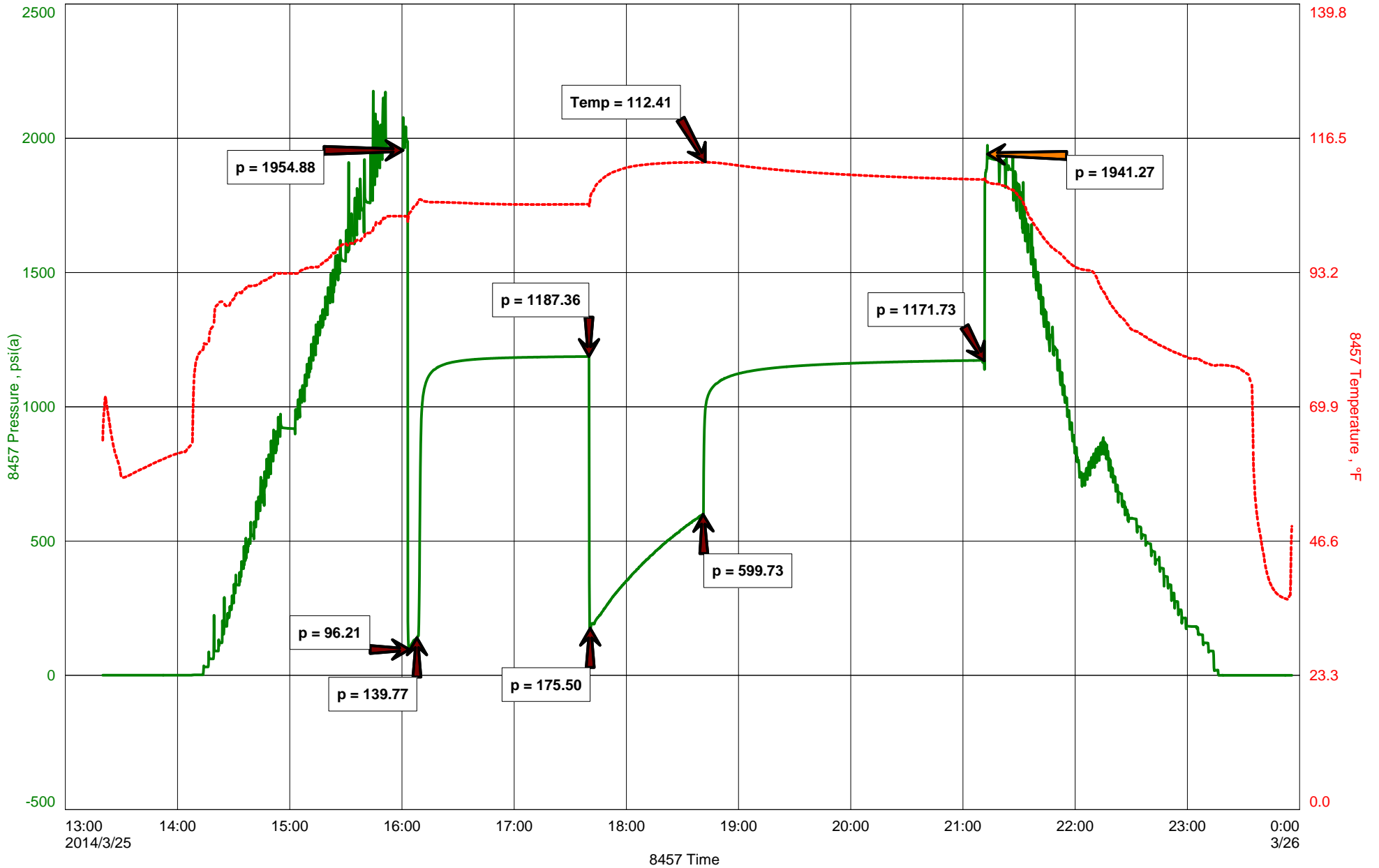
RECOVERED: 2815' GAS IN PIPE  
165' MUD  
195' MCW, 65% WATER, 35% MUD  
885' VSMCW, 95% WATER, 5% MUD  
1245' TOTAL FLUID

TOOL SAMPLE: 93% WATER, 7% MUD

CHLORIDES: 112,000 ppm  
PH: 6.0  
RW: .11 @ 67 deg.



# GOOSSEN #2-14





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: GOOSSEN2-14DST3

TIME ON: 13:20  
TIME OFF: 23:57

Company FALCON EXPLORATION, INC. Lease & Well No. GOOSSEN #2-14  
Contractor STERLING DRILLING CO. RIG #2 Charge to FALCON EXPLORATION, INC.  
Elevation 2811 KB Formation TORONTO Effective Pay \_\_\_\_\_ Ft. Ticket No. T324  
Date 3-25-14 Sec. 14 Twp. 28 S Range 30 W County GRAY State KANSAS  
Test Approved By DAVE WILLIAMS Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 3 Interval Tested from 4094 ft. to 4142 ft. Total Depth 4142 ft.  
Packer Depth 4089 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4094 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4075 ft. Recorder Number 8457 Cap. 10,000 P.S.I.  
Bottom Recorder Depth (Outside) 4139 ft. Recorder Number 11029 Cap. 5,025 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 48 Drill Collar Length 215 ft. I.D. 2 1/4 in.  
Weight 9.15 Water Loss 8.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 4,400 P.P.M. Drill Pipe Length 3846 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 2 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 16 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. <sup>32' DP IN ANCHOR</sup> Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

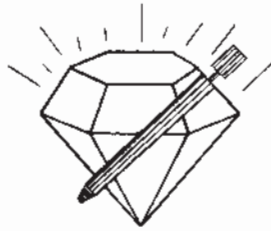
Blow: 1st Open: STRONG 4 INCH BLOW BUILDING, REACHING BOB 30 SEC. (1" BB)  
2nd Open: STRONG 6 INCH BLOW, BUILDING, REACHING BOB 45 SEC. (BOB BB)

Recovered <u>2815</u> ft. of <u>GAS IN PIPE</u>	
Recovered <u>165</u> ft. of <u>MUD</u>	
Recovered <u>195</u> ft. of <u>WCM, 65% WATER, 35% MUD</u>	
Recovered <u>885</u> ft. of <u>VSMCW, 95% WATER, 5% MUD</u>	
Recovered <u>1245</u> ft. of <u>TOTAL FLUID</u>	CHLORIDES: 112,000 ppm
Recovered _____ ft. of _____	PH: 6.0
Remarks: _____	RW: .11 @ 67 deg.
<u>TOOL SAMPLE: 93% WATER, 7% MUD</u>	Total

Time Set Packer(s) 4:03 PM <sup>A.M.</sup>/<sub>P.M.</sub> Time Started Off Bottom 9:10 PM <sup>A.M.</sup>/<sub>P.M.</sub> Maximum Temperature 112 deg.

Initial Hydrostatic Pressure..... (A) 1955 P.S.I.  
Initial Flow Period..... Minutes 5 (B) 36 P.S.I. to (C) 140 P.S.I.  
Initial Closed In Period..... Minutes 92 (D) 1187 P.S.I.  
Final Flow Period..... Minutes 60 (E) 136 P.S.I. to (F) 600 P.S.I.  
Final Closed In Period..... Minutes 150 (G) 1172 P.S.I.  
Final Hydrostatic Pressure..... (H) 1941 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



**DIAMOND TESTING**  
P. O. Box 157  
**HOISINGTON, KANSAS 67544**  
(316) 653-7550  
**GAS VOLUME REPORT**

Company FALCON EXPLORATION, INC. Lease & Well No. GOOSSEN #2-14  
Date 3-25-14 Sec. 14 Twp. 28S Rge. 30W Location \_\_\_\_\_ County GRAY State KS  
Drilling Contractor STERLING DRILLING CO. RIG #2 Formation TORONTO DST No. 3  
Remarks: GAS TO SURFACE 20 MIN. INTO FINAL FLOW PERIOD.

**INITIAL FLOW**

Time O'Clock	Orifice Size	Gauge	CF/D
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

**FINAL FLOW** IN. H2O

Time O'Clock	Orifice Size	Gauge	CF/D
20	1/4 in.	3 in.	2,920
30	1/4 in.	26 in.	6,560
40	1/4 in.	29 in.	9,045
*50	1/4 in.	25 in.	8,390
60	1/4 in.	19 in.	7,320
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

\* TOOK SAMPLE

# DIAMOND TESTING

## General Information Report

### General Information

**Company Name** FALCON EXPLORATION, INC.  
**Contact** JASON MITCHELL  
**Well Name** GOOSSEN #2-14  
**Unique Well ID** DST #4, LANSING "A&B", 4187-4235  
**Surface Location** SEC 14-28S-30W, GRAY CO. KS.  
**Field** RENEGADE SE  
**Well Type** Vertical  
**Test Type** CONVENTIONAL  
**Formation** DST #4, LANSING "A&B", 4187-4235  
**Well Fluid Type** 02 Gas

**Representative** TIM VENTERS  
**Well Operator** FALCON EXPLORATION, INC.  
**Report Date** 2014/03/27  
**Prepared By** TIM VENTERS  
**Qualified By** DAVE WILLIAMS

**Start Test Date** 2014/03/26  
**Final Test Date** 2014/03/27

**Start Test Time** 19:28:00  
**Final Test Time** 06:18:00

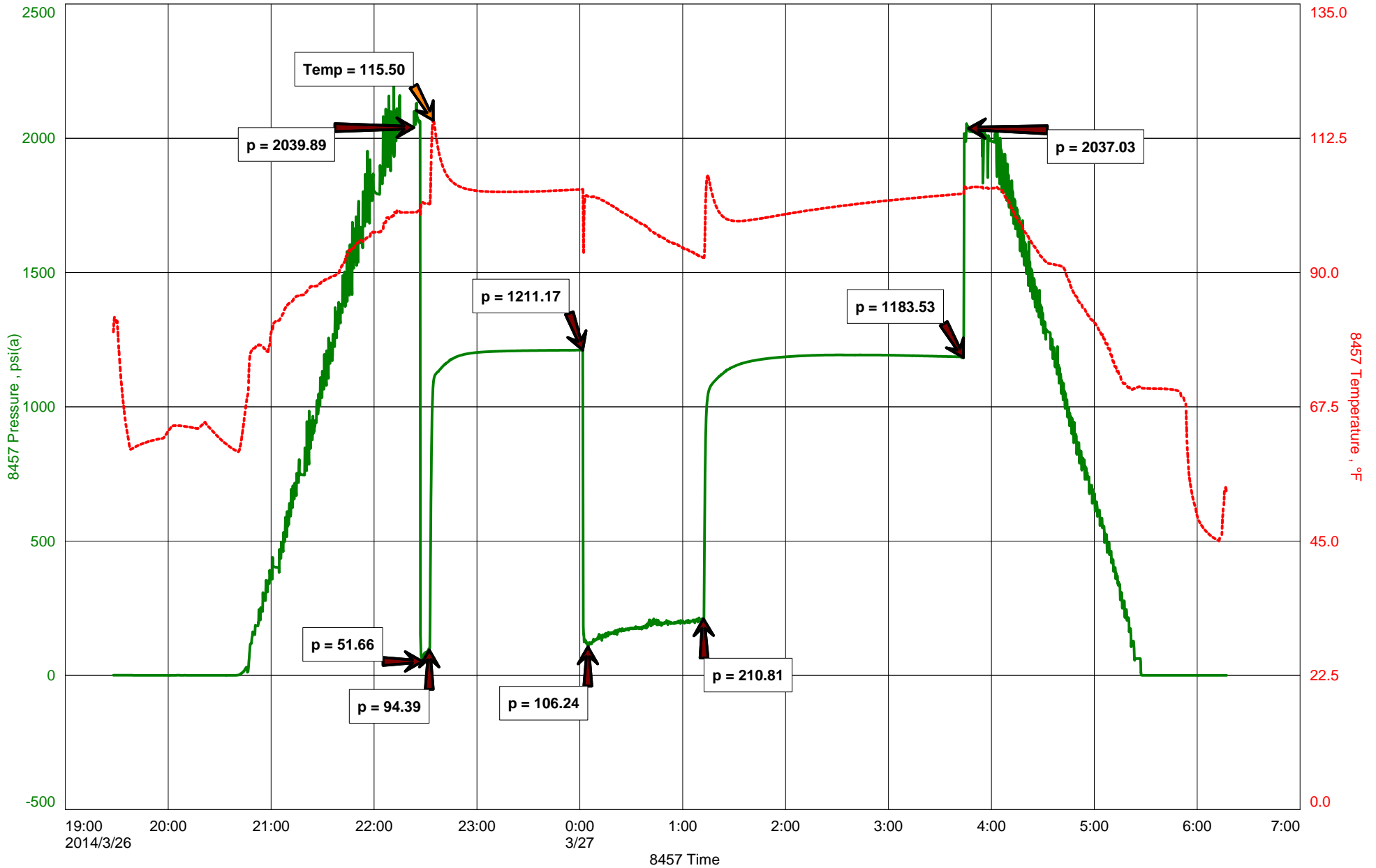
### Test Recovery:

RECOVERED: 3895' GAS IN PIPE  
195' MUD  
65' G, SWCM, 4% GAS, 4% WATER, 92% MUD  
260' TOTAL FLUID

TOOL SAMPLE: 8% GAS, 17% WATER, 75% MUD

CHLORIDES: 23,000 ppm  
PH: 7.5  
RW: .38 @ 56 deg.

# GOOSSEN #2-14





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: GOOSSEN2-14DST4

TIME ON: 19:28 3-26-14  
TIME OFF: 06:18 3-27-14

Company FALCON EXPLORATION, INC. Lease & Well No. GOOSSEN #2-14  
Contractor STERLING DRILLING CO. RIG #2 Charge to FALCON EXPLORATION, INC.  
Elevation 2811 KB Formation LANSING "A&B" Effective Pay \_\_\_\_\_ Ft. Ticket No. T325  
Date 3-26-14 Sec. 14 Twp. \_\_\_\_\_ 28 S Range \_\_\_\_\_ 30 W County GRAY State KANSAS  
Test Approved By DAVE WILLIAMS Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 4 Interval Tested from 4187 ft. to 4235 ft. Total Depth 4235 ft.  
Packer Depth 4182 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4187 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4168 ft. Recorder Number 8457 Cap. 10,000 P.S.I.  
Bottom Recorder Depth (Outside) 4232 ft. Recorder Number 11029 Cap. 5,025 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 60 Drill Collar Length 215 ft. I.D. 2 1/4 in.  
Weight 9.0 Water Loss 8.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 3,400 P.P.M. Drill Pipe Length 3939 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 2 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 16 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. <sup>32' DP IN ANCHOR</sup> Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: VERY STRONG BLOW, HITTING BOB INSTANTANEOUSLY. (NO BB)  
2nd Open: VERY STRONG BLOW, HITTING BOB INSTANTANEOUSLY. (NO BB)

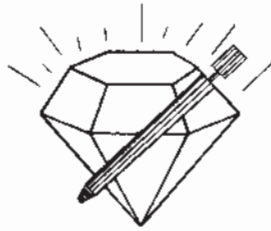
Recovered 3895 ft. of GAS IN PIPE  
Recovered 195 ft. of MUD  
Recovered 65 ft. of G,SWCM, 4% GAS, 4% WATER, 92% MUD  
Recovered 260 ft. of TOTAL FLUID

Recovered _____ ft. of _____	CHLORIDES: 23,000 ppm	Price Job
Recovered _____ ft. of _____	PH: 7.5	Other Charges
Remarks: _____	RW: .38 @ 56 deg.	Insurance
TOOL SAMPLE: 8% GAS, 17% WATER, 75% MUD		Total

Time Set Packer(s) 10:26 PM <sup>A.M.</sup>/<sub>P.M.</sub> Time Started Off Bottom 3:41 AM <sup>A.M.</sup>/<sub>P.M.</sub> Maximum Temperature 116 deg.

Initial Hydrostatic Pressure..... (A) 2040 P.S.I.  
Initial Flow Period..... Minutes 5 (B) 52 P.S.I. to (C) 94 P.S.I.  
Initial Closed In Period..... Minutes 90 (D) 1211 P.S.I.  
Final Flow Period..... Minutes 70 (E) 106 P.S.I. to (F) 211 P.S.I.  
Final Closed In Period..... Minutes 150 (G) 1184 P.S.I.  
Final Hydrostatic Pressure..... (H) 2037 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



**DIAMOND TESTING**  
 P. O. Box 157  
**HOISINGTON, KANSAS 67544**  
 (316) 653-7550  
**GAS VOLUME REPORT**

Company FALCON EXPLORATION, INC. Lease & Well No. GOOSSEN #2-14  
 Date 3-26-14 Sec. 14 Twp. 28S Rge. 30W Location \_\_\_\_\_ County GRAY State KS  
 Drilling Contractor STERLING DRILLING CO. RIG #2 Formation LANSING "A&B" DST No. 4  
 Remarks: GAS TO SURFACE 4 MIN. INTO INITIAL FLOW PERIOD.

**INITIAL FLOW**

Time O'Clock	Orifice Size	Gauge	CF/D
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

**FINAL FLOW PSI**

Time O'Clock	Orifice Size	Gauge	CF/D
10	3/4 in.	27 in.	487,000
20	3/4 in.	35 in.	581,000
30	3/4 in.	40 in.	639,000
40	3/4 in.	45 in.	697,000
*50	3/4 in.	48 in.	732,000
60	3/4 in.	50 in.	756,000
70	3/4 in.	51 in.	767,000
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

\* TOOK SAMPLE

# DIAMOND TESTING

## General Information Report

### General Information

**Company Name** FALCON EXPLORATION, INC.  
**Contact** JASON MITCHELL  
**Well Name** GOOSSEN #2-14  
**Unique Well ID** DST #5, LKC "DRUM" (H), 4407-4429  
**Surface Location** SEC 14-28S-30W, GRAY CO. KS.  
**Field** RENEGADE SE  
**Well Type** Vertical  
**Test Type** CONVENTIONAL  
**Formation** DST #5, LKC "DRUM" (H), 4407-4429  
**Well Fluid Type** 02 Gas

**Representative** TIM VENTERS  
**Well Operator** FALCON EXPLORATION, INC.  
**Report Date** 2014/03/28  
**Prepared By** TIM VENTERS  
**Qualified By** DAVE WILLIAMS

**Start Test Date** 2014/03/28  
**Final Test Date** 2014/03/28

**Start Test Time** 04:26:00  
**Final Test Time** 14:01:00

### Test Recovery:

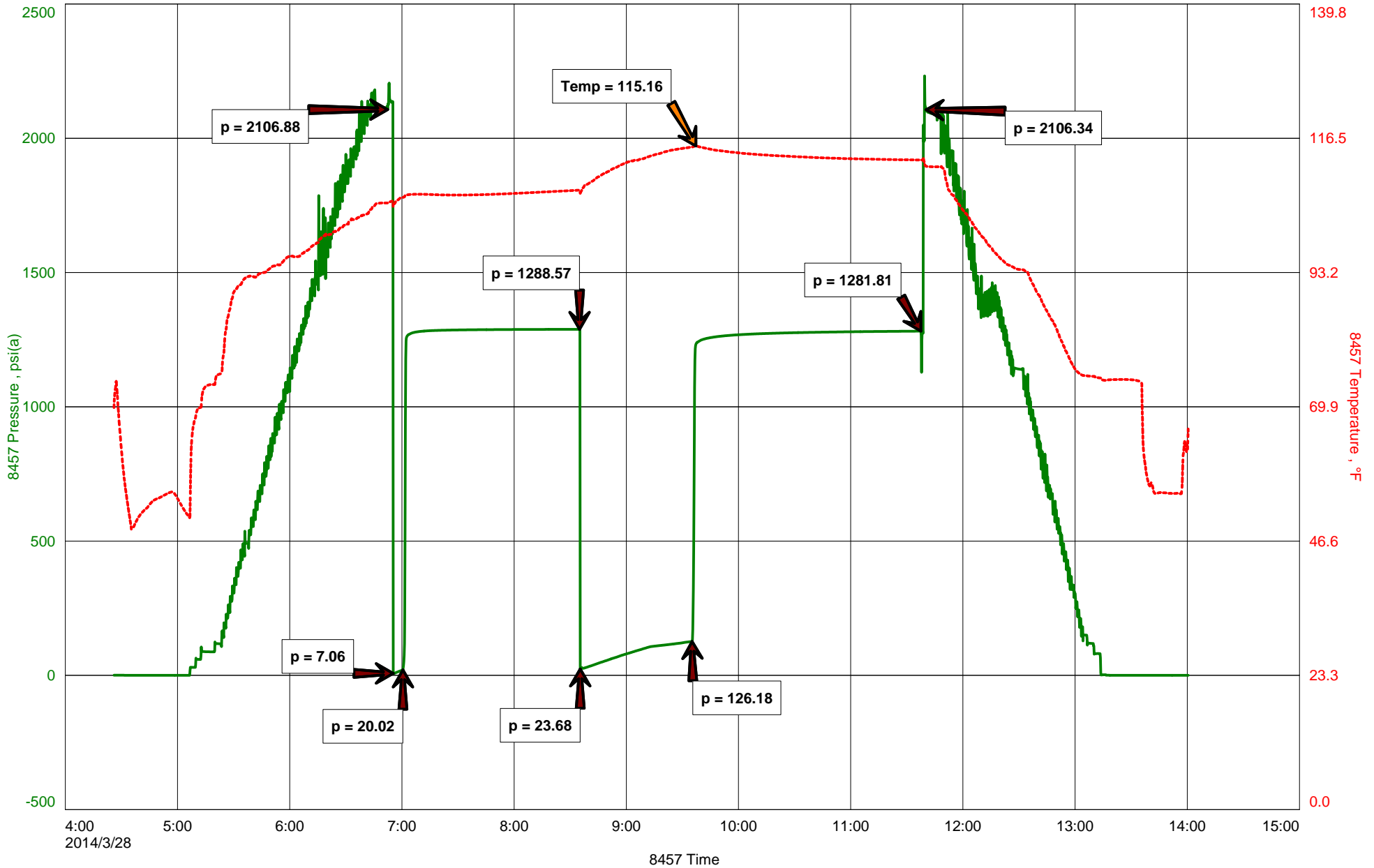
RECOVERED: 10' WCM W/TR. O, TRACE OIL, 27% WATER, 73% MUD  
125' MCW, 71% WATER, 29% MUD  
125' VSMCW, 98% WATER, 2% MUD  
260' TOTAL FLUID

TOOL SAMPLE: TRACE OIL, 60% WATER, 40% MUD

CHLORIDES: 78,000 ppm  
PH: 8.0  
RW: .13 @ 64 deg.



# GOOSSEN #2-14





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: GOOSSEN2-14DST5

TIME ON: 04:26  
TIME OFF: 14:01

Company FALCON EXPLORATION, INC. Lease & Well No. GOOSSEN #2-14  
Contractor STERLING DRILLING CO. RIG #2 Charge to FALCON EXPLORATION, INC.  
Elevation 2811 KB Formation LKC "DRUM" (H) Effective Pay \_\_\_\_\_ Ft. Ticket No. T326  
Date 3-28-14 Sec. 14 Twp. \_\_\_\_\_ 28 S Range \_\_\_\_\_ 30 W County GRAY State KANSAS  
Test Approved By DAVE WILLIAMS Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 5 Interval Tested from 4407 ft. to 4429 ft. Total Depth 4429 ft.  
Packer Depth 4402 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4407 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4388 ft. Recorder Number 8457 Cap. 10,000 P.S.I.  
Bottom Recorder Depth (Outside) 4426 ft. Recorder Number 11029 Cap. 5,025 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 60 Drill Collar Length 215 ft. I.D. 2 1/4 in.  
Weight 9.0 Water Loss 8.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 3,400 P.P.M. Drill Pipe Length 4159 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 2 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 22 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WEAK SURFACE BLOW, BUILDING TO 1 1/4 INCH. (NO BB)  
2nd Open: VERY WEAK SURFACE BLOW, BUILDING TO 9 1/2 INCHES. (NO BB)

Recovered 10 ft. of WCM W/TR. O, TRACE OIL, 27% WATER, 73% MUD  
Recovered 125 ft. of MCW, 71% WATER, 29% MUD  
Recovered 125 ft. of VSMCW, 98% WATER, 2% MUD  
Recovered 260 ft. of TOTAL FLUID

Recovered _____ ft. of _____	CHLORIDES: 78,000 ppm	Price Job
Recovered _____ ft. of _____	PH: 8.0	Other Charges
Remarks: _____	RW: .13 @ 64 deg.	Insurance
TOOL SAMPLE: TRACE OIL, 60% WATER, 40% MUD		Total

Time Set Packer(s) 6:55 AM A.M. P.M. Time Started Off Bottom 11:37 AM A.M. P.M. Maximum Temperature 115 deg.

Initial Hydrostatic Pressure..... (A) 2107 P.S.I.  
Initial Flow Period..... Minutes 5 (B) 7 P.S.I. to (C) 20 P.S.I.  
Initial Closed In Period..... Minutes 95 (D) 1289 P.S.I.  
Final Flow Period..... Minutes 60 (E) 24 P.S.I. to (F) 126 P.S.I.  
Final Closed In Period..... Minutes 122 (G) 1282 P.S.I.  
Final Hydrostatic Pressure..... (H) 2106 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

# DIAMOND TESTING

## General Information Report

### General Information

**Company Name** FALCON EXPLORATION, INC.  
**Contact** JASON MITCHELL  
**Well Name** GOOSSEN #2-14  
**Unique Well ID** DST #6, MISS. (ST. LOUIS), 5198-5270  
**Surface Location** SEC 14-28S-30W, GRAY CO. KS.  
**Field** RENEGADE SE  
**Well Type** Vertical  
**Test Type** CONVENTIONAL  
**Formation** DST #6, MISS. (ST. LOU.), 5189-5270  
**Well Fluid Type** 01 Oil

**Representative** TIM VENTERS  
**Well Operator** FALCON EXPLORATION, INC.  
**Report Date** 2014/04/01  
**Prepared By** TIM VENTERS  
**Qualified By** DAVE WILLIAMS

**Start Test Date** 2014/03/31  
**Final Test Date** 2014/04/01

**Start Test Time** 18:18:00  
**Final Test Time** 03:33:00

### Test Recovery:

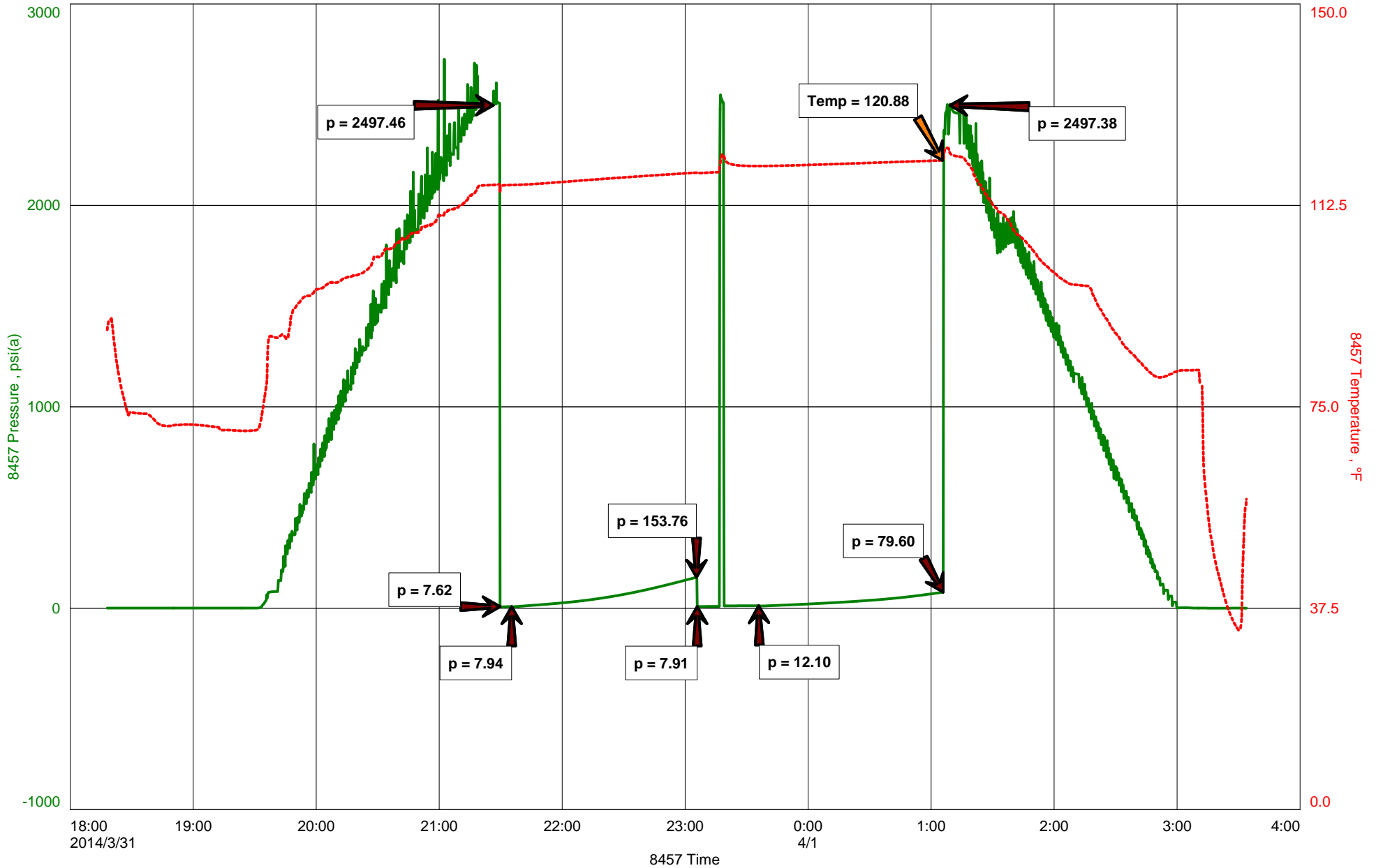
RECOVERED: 15' MUD

TOOL SAMPLE: 100% MUD

FALCON EXPLORATION, INC.  
DST #6, MISS. (ST. LOUIS), 5198-5270  
Start Test Date: 2014/03/31  
Final Test Date: 2014/04/01

GOOSSEN #2-14  
Formation: DST #6, MISS. (ST. LOU.), 5189-5270  
Pool: RENEGADE SE  
Job Number: T327

# GOOSSEN #2-14





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: GOOSSEN2-14DST5

TIME ON: 18:18 3-31-14  
TIME OFF: 03:33 4-1-14

Company FALCON EXPLORATION, INC. Lease & Well No. GOOSSEN #2-14  
Contractor STERLING DRILLING CO. RIG #2 Charge to FALCON EXPLORATION, INC.  
Elevation 2811 KB Formation MISS. (ST. LOUIS) Effective Pay \_\_\_\_\_ Ft. Ticket No. T327  
Date 3-31-14 Sec. 14 Twp. \_\_\_\_\_ 28 S Range \_\_\_\_\_ 30 W County GRAY State KANSAS  
Test Approved By DAVE WILLIAMS Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 6 Interval Tested from 5198 ft. to 5270 ft. Total Depth 5270 ft.  
Packer Depth 5193 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 5198 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 5179 ft. Recorder Number 8457 Cap. 10,000 P.S.I.  
Bottom Recorder Depth (Outside) 5267 ft. Recorder Number 11029 Cap. 5,025 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 52 Drill Collar Length 215 ft. I.D. 2 1/4 in.  
Weight 9.1 Water Loss 8.0 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 2,000 P.P.M. Drill Pipe Length 4950 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 2 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 40 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. <sup>32' DP IN ANCHOR</sup> Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WEAK SURFACE BLOW THROUGHOUT PERIOD. (NO BB)  
2nd Open: NO BLOW THROUGHOUT PERIOD (NO BB)

Recovered 15 ft. of MUD  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Remarks: WE FLUSHED TOOL 10 MIN. INTO FINAL FLOW PERIOD AND JUST GOT THE SURGE BLOW.  
TOOL SAMPLE: 100% MUD

Time Set Packer(s) 9:29 PM <sup>A.M.</sup>/<sub>P.M.</sub> Time Started Off Bottom 1:04 AM <sup>A.M.</sup>/<sub>P.M.</sub> Maximum Temperature 121 deg.

Initial Hydrostatic Pressure..... (A) 2497 P.S.I.  
Initial Flow Period..... Minutes 5 (B) 8 P.S.I. to (C) 8 P.S.I.  
Initial Closed In Period..... Minutes 90 (D) 154 P.S.I.  
Final Flow Period..... Minutes 30 (E) 8 P.S.I. to (F) 12 P.S.I.  
Final Closed In Period..... Minutes 90 (G) 80 P.S.I.  
Final Hydrostatic Pressure..... (H) 2497 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



**Scale 1:240 (5"=100') Imperial  
Measured Depth Log**

**Well Name:** GOOSSEN # 2-14  
**Location:** SE-NW-SE-SW 1/4 of SEC. 14 - 28 S. - 30 W.  
**License Number:** A.P.I. #15-069-20,469-00-00  
**Spud Date:** 03/17/2014  
**Surface Coordinates:** 790' FSL & 1720' FWL

**Region:** GRAY CO., KS.  
**Drilling Completed:**

**Bottom Hole Coordinates:**  
**Ground Elevation (ft):** 2800'      **K.B. Elevation (ft):** 2811'  
**Logged Interval (ft):** SURFACE To: 5475'      **Total Depth (ft):** 5475'  
**Formation:** MISSISSIPPIAN "SALEM"  
**Type of Drilling Fluid:** CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 2911'.  
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

**OPERATOR**

**Company:** Falcon Exploration, Inc.; KCC LIC. NO. # 5316  
**Address:** 125 North Market Street, Ste. #1252  
Wichita, Kansas 67202

**GEOLOGIST**

**Name:** David P. Williams  
**Company:** DW Energy, LLC (DWE)  
**Address:** 312 North Broadview Street  
Wichita, Kansas 67208

**CASING & DEVIATION SURVEY'S**

**Surface Casing:** Spud at 10:30 pm on 03/17/14. Drilled 12-1/4" to 1890'. Ran 43 joints of new 24#, 8-5/8" casing. Tallied 1824'. Set at 1842' KB. Welded straps on GS & bottom 3 joints, then tack welded all collars. Cemented with 460 sks A-Conn; 3% CC, 1/4# FS. Tailed with 150 sks Class A, 2% CC. Cement did circulate. Plug down at 3:00 pm on 03/19/14 Basic Energy Svcs Cementing ticket #9767. Centralozers (5) 1,3,6,32,38. Baskets (2) 824' & 1830'. Cement fell 100' below GL. Filled annulus with 100 sks "Dry" Class C Cement.

**Deviation Survey's:** @ 1890' = 3/4 degree; @ 3540' = 3/4 degree; @ 4235' = 3/4 degree; @ 5270' = 1 1/4 degree;

## DSTs

~~DST # 1~~ Interval: 3452'-3540'. Times: 5"-90"-120"-180"; Blow: IF=BOB/0.45"& GTS/4.5". No Gauge. FF=GTS/Instant (See Gauge Report Below). Recovery:3040' GIP: 380' TF: 135' M; & 245' SWCM (5% W & 95% M); Chl.=39,000 Ppm; PH=6.0; RW=0.25 @ 66 degrees F.. Pressures: IH=1613#; FH=1612#; IF=51-102#; FF=97-203#; ISIP=877#; FSIP=832#; Temp.=108 deg. F. FF Gas Gauge: @ 10"=288 Mcf; @ 20"=398 Mcf; @ 30"=449 Mcf; @ 40"=473 Mcf; @ 50"=487 Mcf; @ 60"=497 Mcf; @ 70"= 510 Mcf; @ 80"=522 Mcf; @ 90"=522 Mcf; @100"=522 Mcf;@ 110"=522 Mcf; @ 120"=522 Mcf.

~~DST # 2~~Interval: 3537'-3580'. Times: 5"-90"-40"-120"; Blow: IF=BOB/0.45". FF=GTS/Instant. GTS/7" (See Gauge Report Below). Recovery: 3375' GIP: 130' TF: 70' M; & 60' SWCM (7% W & 93% M); Chl.=25,000 Ppm; PH=7.0; RW=0.32 @ 66 degrees F.. Pressures: IH= 1660#; FH= 1657#; IF=23-30#; FF=29-60#; ISIP =929#; FSIP=916#; Temp.=103 deg. F. FF Gas Gauge: @ 10"=21.9 Mcf; @ 20"=19.9 Mcf; @ 30"=15.4 Mcf; @ 40"=12.5 Mcf.

~~DST # 3~~ Interval: 4094'-4142'. Times: 5"-90"-60"-120"; Blow: IF=BOB/0/0.30". FF=BOB/45"(w/GTS @ 20.0)". See Gauge Report Below. Recovery: 2815' GIP: 1245' TF: 165' M; 195' MCW (65% W & 35% M); & 885' VSMCW (95% W & 5% M); Chl.=112,000 Ppm; PH=6.0; RW=0.11 @ 67 degrees F.. Pressures: IH=1955#; FH=1941#; IF=96-140#; FF=176-600#; ISIP=1187#; FSIP=1172#; Temp.=112 degrees F. FF Gas Gauge: @ 20"=2.92 Mcf; @ 30"=8.56 Mcf; @ 40"=9.05 Mcf; @ 50"=8.39 Mcf; @ 60"=7.32 Mcf.

~~DST # 4~~Interval: 4187'-4235'.Times: 5"-90"-60"-120"; Blow: IF=BOB/Instant. GTS /4" TSTM. ISIP = No Blow Back. FF=BOB/Instant. FSIP=1/4" Blow Back. (See Gauge Report Below.) Recovery: 3895' GIP: 260' TF: 195' M; & 65' GSWCM (4% G., 4% W & 92% M). Chl.=27,000 Ppm; PH =7.5; RW=0.38. @ 56 degrees F.. Pressures: IH=2040#; FH =2037#; IF=52-94#; FF=106-211#; ISIP = 1211#; FSIP=1184#; Temp.=116 degrees F. FF Gas Gauge: @ 10"=487 Mcf; @ 20"=581 Mcf; @ 30"=639 Mcf; @ 40"=697 Mcf; @ 50"=732 Mcf; @ 60"=756 Mcf; @ 70"=767 Mcf.

~~DST # 5~~ Interval: 4407'-4429'.Times: 5"-90"-60"-122"; Blow: IF=Weak Surface/1.5". ISIP = No Blow Back. FF= Weak Surface/9.5". FSIP = No Blow Back. Recovery: 260' TF: 10' WCM/Tr.O & 125'MCW (71% W & 29% M); & 125' VSMCW (98% W & 2% M). Chl. 78,000 Ppm; PH=8.0; RW=0.12 @ degrees 64 F. Pressures: IH=2107#; FH=2106#; IF=7-20#; FF=24-126#; ISIP=1289#; FSIP=1282#; Temp=115 degrees F.

~~DST # 6~~Interval: 5198'-5270'. Times: 5"-90"-30"-90"; Blow: IF=Weak Surface/". ISIP = No Blow Back. FF= No Blow & Flushed Tool No Help.. FSIP = No Blow Back. Recovery: 18' M. Pressures: IH=2497#; FH=2497#; IF=8-8#; FF=8-12#; ISIP=154#; FSIP=80#; Temp.= 121 degrees F.

## Comments

After review of all geologic samples as examined, combined with the fluid and pressures results from all drill stem tests taken and analysis from the electric logs run, it was determined by all parties that production casing should be run in order to further evaluate this well.

Respectfully submitted,

David P. Williams, P.G

### ROCK TYPES

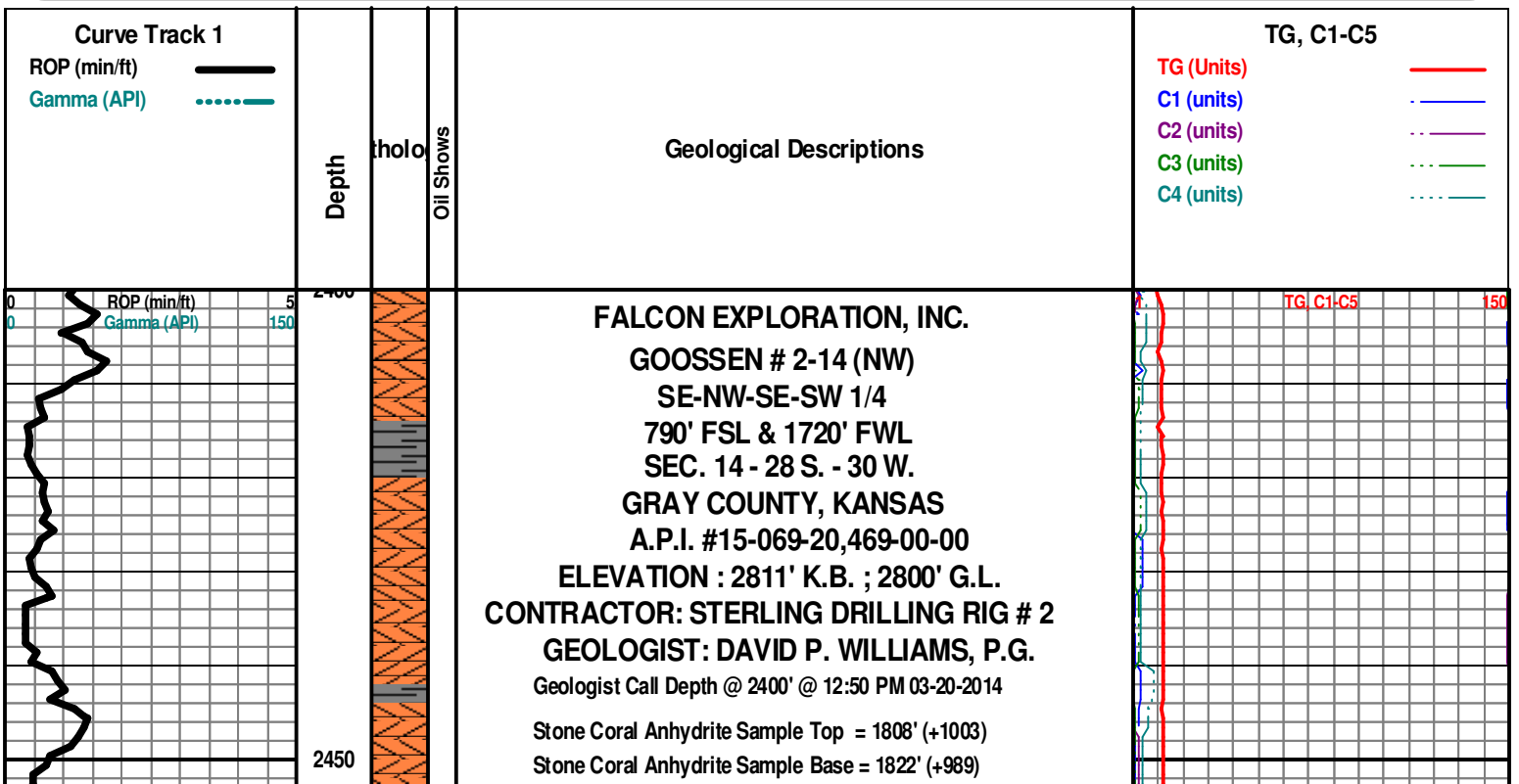
Anhy	Clyst	Gry shale	Mrlst	Shgy
Bent	Coal	Gyp	Red shale	Sltst
Brec	Congl	Igne	Salt	Ss
Carb sh	Dol	Lmst	Shale	Till
Cht	Grn sh	Meta	Shcol	

### ACCESSORIES

<b>MINERAL</b>	Hvymin	Belm	Pellet	<b>TEXTURE</b>
Anhy	Kaol	Bioclst	Pisolite	Boundst
Arggrn	Marl	Brach	Plant	Chalky
Arg	Minxl	Bryozoa	Strom	Cryxln
Bent	Nodule	Cephal	<b>STRINGER</b>	Earthy
Bit	Phos	Coral	Anhy	Finexln
Brecfrag	Pyr	Crin	Arg	Grainst
Calc	Salt	Echin	Bent	Lithogr
Carb	Sandy	Fish	Coal	Microxln
Chtdk	Silt	Foram	Dol	Mudst
Chtlt	Sil	Fossil	Gyp	Packst
Dol	Sulphur	Fuss	Ls	Wackest
Feldspar	<b>FOSSIL</b>	Gastro	Mrst	
Ferrpel	Algae	Oolite	Sltstrg	
Ferr	Amph	Oomold	Ssstrg	
Glau		Ostra		
Gyp		Pelec		

### OTHER SYMBOLS

<b>POROSITY</b>	Vuggy	<b>ROUNDING</b>	Spotted	Core
Earthy	<b>SORTING</b>	Rounded	Gas show	<b>EVENT</b>
Fenest	Well	Subrnd	Ques	Rft
Fracture	Moderate	Subang	Dead	Sidewall
Inter	Poor	Angular	<b>INTERVAL</b>	
Moldic		<b>OIL SHOW</b>	Dst	
Organic		Even	Dst_alt	
Pinpoint				





Deviation Survey's: @ 1890' = 3/4 degree; @ 3540' = 3/4 degree; @ 4235' = 3/4 degree; @ 5270' = 1 1/4 degree; @ 5470' = degrees.

2500

2550

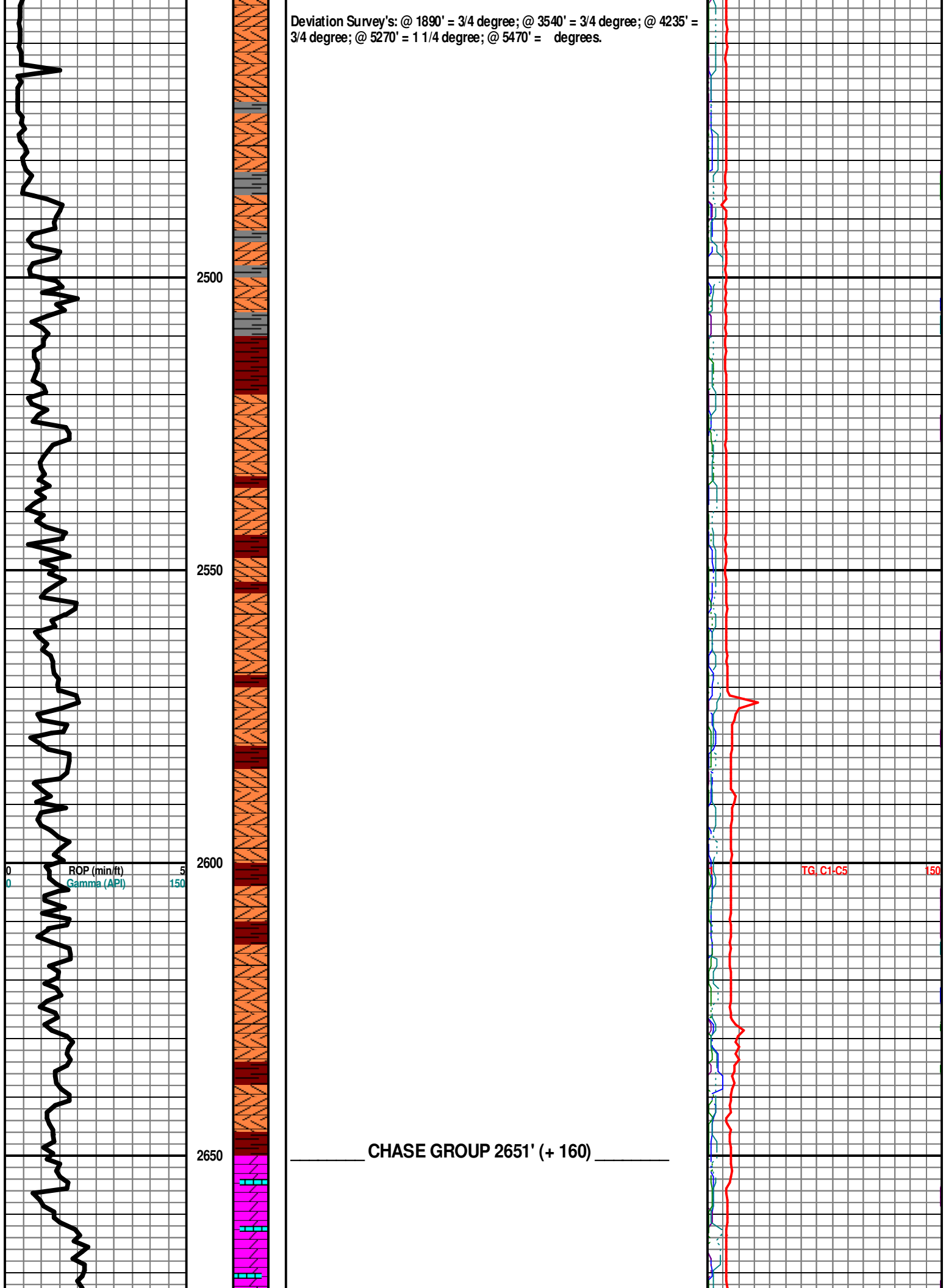
2600

2650

ROP (min/ft) 5  
Gamma (API) 150

TG C1:C5 150

CHASE GROUP 2651' (+ 160)



**KRIDER 2690' (+ 121)**

Sh Red-Char V Abd Dolo/Ls Cm FxIn Micrite Anhy/Gyp AA No Odor No Stn No Flor NS

2700

**WINFIELD 2726' (+85)**

Poor Spl. Sh Gry-Red Soft Poor Spl (Wash Red V Abd) Dolo/Ls Cm-Gry Poor IxIn Por Dns Micrite Chalky No Odor No Stn No Flor NS

2750

**TOWANDA 2770' (+41)**

Sh Gry-Red Soft Poor Spl (Wash Red V Abd) Dolo/Ls Cm-Gry Poor IxIn Por Dns Micrite Chalky No Odor No Stn No Flor NS

2800

**FORT RILEY 2816' (-5)**

Sh Gry-Red Soft Poor Spl (Wash Red V Abd) Ls Cm-Gry Poor IxIn Por Dns Micrite Chalky No Odor No Stn No Flor NS

2850

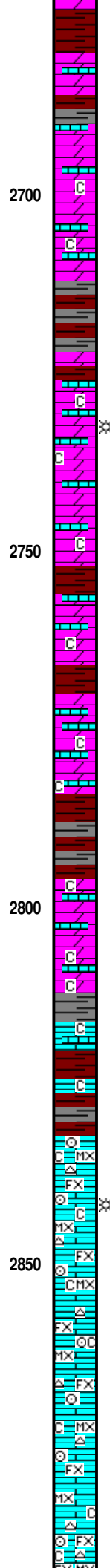
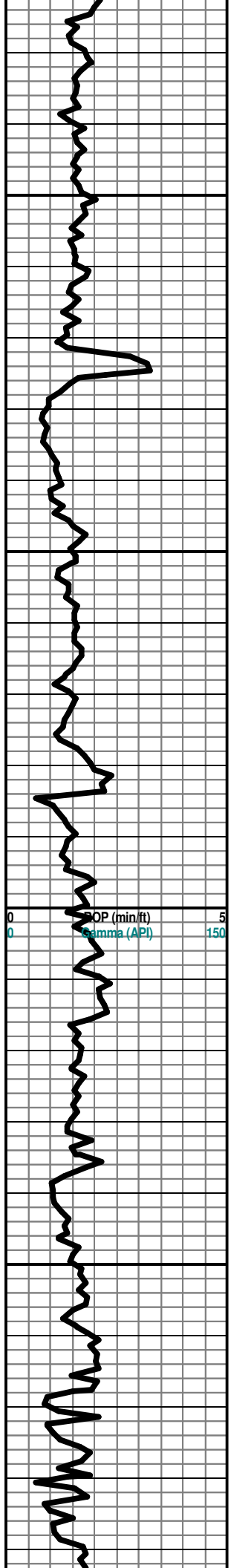
Ls Cm-Gry FxIn-MicroxIn Poor-Fair IxIn Por Tr Granular Grad Poor Dns Micrite Cht Gry (w/Brn Incls) Fos (Crin) Chalky Sh Gry-Red Soft No Odor No Stn No Flor NS

ADJUST ANNULAR VELOCITY TO TOOKE  
DAQ @ 2722' = 170.53

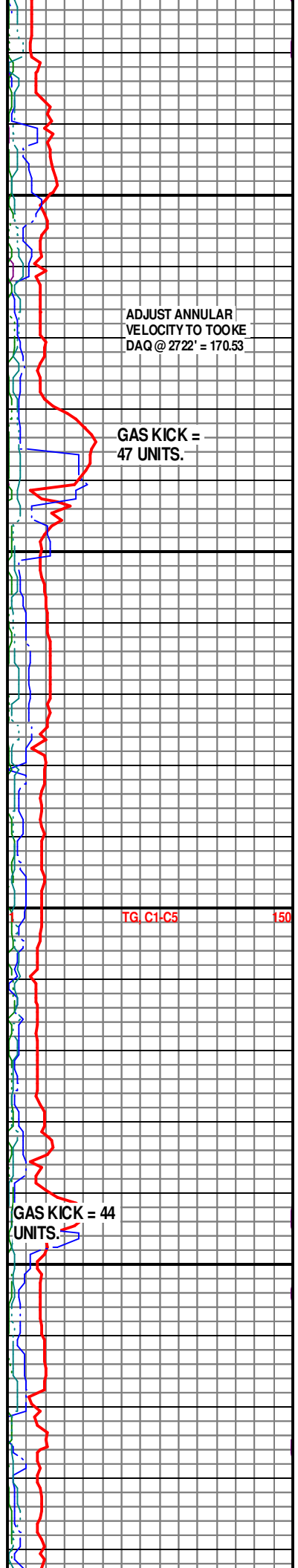
GAS KICK = 47 UNITS.

TG C1-C5 150

GAS KICK = 44 UNITS.



Log descriptions for each formation, detailing lithology and properties. The text is aligned with the stratigraphic column and depth markers.



2900  
2950  
3000  
3050  
3100

Ls Crm-Gry FxIn-MicroxIn Poor-Fair IxIn Por Tr Granular Grad Poor Dns  
Micrite Cht Gry (w/Brn Inclus) Fos (Crin) Chalky Sh Gry-Red Soft No Odor  
No Stn No Flor NS

**MUD DISPLACEMENT @ 2911'**

Ls Crm-Gry FxIn-MicroxIn Poor-Fair IxIn Por Tr Granular Grad Poor Dns  
Micrite Cht Wht Op Shp Vit Chalky Abd Sh Gry-Red Soft No Odor No Stn  
No Flor NS

Ls Crm-Wht FxIn Poor IxIn Por Dns Micrite Cht Wht Op Shp Vit Chalky V  
Abd "Gummy" Sh Gry-Red Soft No Odor No Stn No Flor NS

Ls Crm-Wht FxIn Poor IxIn Por Dns Micrite Cht Wht Op Shp Vit Chalky  
Dec Sh Gry-Red Soft No Odor No Stn No Flor NS

Ls Crm-Wht FxIn Poor IxIn Por Dns Micrite Cht Wht Op Shp Vit Chalky  
Dec Sh Gry-Red Soft No Odor No Stn No Flor NS

@ 3100' Start Sample Examination - 10' Interval Wet & Dry

Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Chalky Dec Sh Gry- Red-  
Maroon Soft No Odor No Stn No Flor NS

**COTTONWOOD 3084' (-273)**

Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Cht Gry Op Shp Vit Chalky  
Sh Gry-Red-Maroon Soft No Odor No Stn No Flor NS

Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Cht Gry Op Shp Vit Chalky  
Sh Gry-Red-Maroon Soft No Odor No Stn No Flor NS

Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Cht Gry Op Shp Vit Chalky  
Sh Gry-Red-Maroon Soft No Odor No Stn No Flor NS

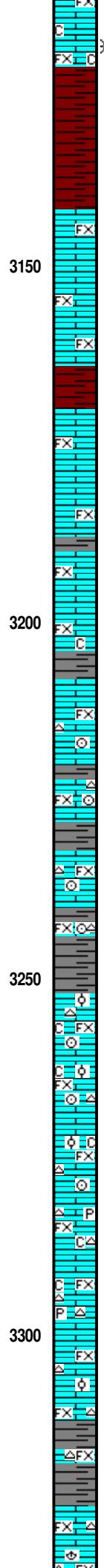
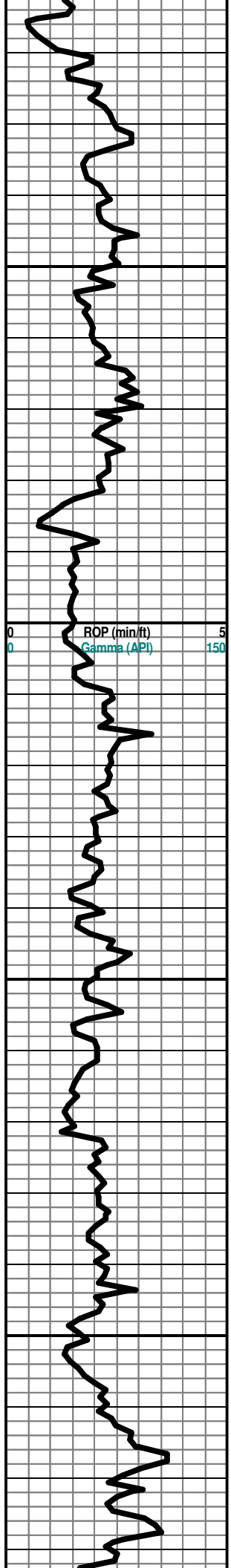
Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Cht Gry Op Shp Vit Chalky

FP (min/ft)  
Gamma (API)

TG C1-C5 150

@ 3046' GAS TEST  
@ EXTRACTOR=  
102 UNITS  
OBSERVED.

Mudco Ck @  
3054' @ 8:25 AM  
3/21/14  
Vis= 49;  
WT= 8.65;  
PV= 16;  
YP= 17;  
WL= 7.6;  
Cake= 1;  
ChI= 2600;  
Cal= 20;  
Sol= 2.0%  
LCM= 2#;  
DMC=\$3 606.00;  
CMC=\$9,099.10



Sh Gry-Red-Maroon Soft No Odor No Stn No Flor NS

Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Cht Gry Op Shp Vit Chalky  
Sh Gry-Red-Maroon Soft (Wash Red) No Odor No Stn No Flor NS

Sh Gry-Red-Maroon Soft (Wash Red) Ls Crm-Wht-Gry FxIn Poor IxIn Por  
Dns Micrite Cht Gry Op Shp Vit Chalky No Odor No Stn No Flor NS

**NEVA 3144' (-333)**

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn  
Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn  
Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn  
Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn  
Fissil No Odor No Stn No Flor NS

**RED EAGLE 3174' (- 363')**

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn  
Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn  
Fissil No Odor No Stn No Flor NS

**BASE COUNCIL GROVE 3204' (-393)**

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Chalk Abd Sh Red-Gry-Grn  
Fissil Dec No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht Op Vit Shp Fos (Crim)  
Chalk Abd Sh Red-Gry-Grn-Aqua Soft-Fissil Dec No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht Op Vit Shp Fos (Crim)  
Chalk Abd Sh Red-Gry-Grn-Aqua Soft-Fissil Dec No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht Op Vit Shp Fos (Crim)  
Chalk Abd Sh Red-Gry-Grn Soft-Fissil Dec No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht Op Vit Shp Fos (Crim)  
Chalk Abd Sh Red-Gry-Grn Soft-Fissil Dec No Odor No Stn NS

**FORAKER 3253' (- 442)**

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Grad Tr Fair OOL Por  
(w/Small OOids in pl) Poor-Fair Dissolu Poor-Fair Develop Cht Wht Op Vit  
Shp Fos (Crim) Chalk Abd Sh Red-Gry-Grn Soft-Fissil Dec No Odor No Stn  
NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Grad Tr Fair OOL Por  
(w/Small OOids in pl) Poor-Fair Dissolu Poor-Fair Develop Cht Wht Op Vit  
Shp Fos (Crim) Chalk Abd Sh Red-Gry-Grn Soft-Fissil Dec No Odor No Stn  
NS

Ls Wht-Crm-Tan FxIn Tr Poor IxIn Por Cht Wht-Peach Translu -Op Vit Shp  
Chalk Abd Sh Maroon (w/Pyr Includs)-Gry-Grn Soft-Fissil Dec No Odor No  
Stn NS

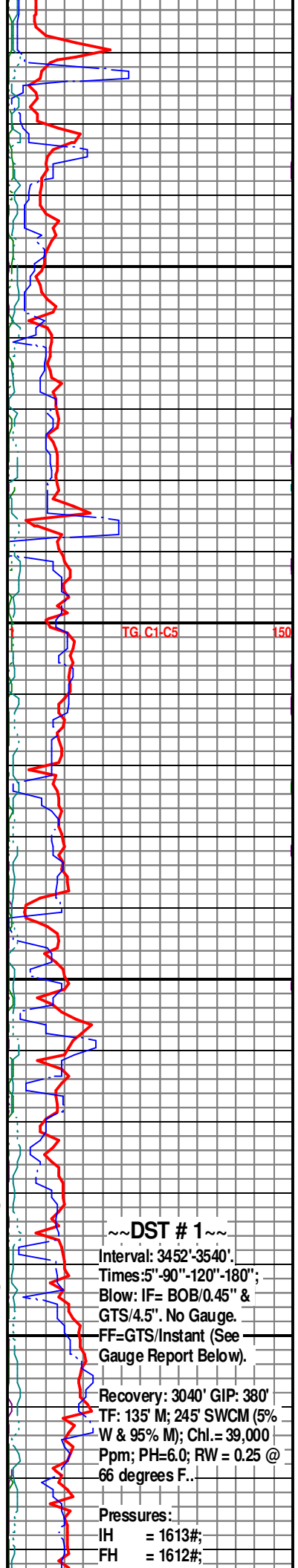
Ls Wht-Crm-Tan FxIn Tr Poor IxIn Por Cht Wht-Peach Translu -Op Vit Shp  
Chalk Abd Sh Maroon (w/Pyr Includs)-Gry-Grn Soft-Fissil Dec No Odor No  
Stn NS

Ls Wht-Crm-Tan FxIn Tr Poor IxIn-Igran Por Grad Fair OOL Por (w/Small  
OOids in pl) Poor-Fair Dissolu Poor-Fair Develop Cht Wht Op Vit Shp  
Chalk Abd Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Wht-Crm-Tan FxIn Tr Poor IxIn-Igran Por Cht Wht-Peach-Gry  
Translu-Op Vit Shp Fos (Crim) Chalk Abd Sh Red-Gry-Grn Soft-Fissil No  
Odor No Stn NS

**ADMIRE GROUP 3328' (- 517)**

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht-Peach Translu-Op Vit



~DST # 1~

Interval: 3452'-3540'  
Times: 5'-90"-120"-180";  
Blow: IF= BOB/0.45" &  
GTS/4.5". No Gauge.  
FF=GTS/Instant (See  
Gauge Report Below).

Recovery: 3040' GIP: 380'  
TF: 135' M; 245' SWCM (5%  
W & 95% M); Chl.= 39,000  
Ppm; PH=6.0; RW = 0.25 @  
66 degrees F..

Pressures:  
IH = 1613#;  
FH = 1612#;

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht-Peach Translu-Op Vit Shp Fos (Brach) Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Cht Wht-Peach Translu-Op Vit Shp Fos (Brach) Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Crm FxIn Poor OOM Por (w/OOL in pl) Poor-No Dissolu Poor Develop Mostly FxIn Chalk Cht Gry Sh Gry-Char Soft No Odor ? Sli Min Flor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Dns Micrite Cht Wht-Gry Translu-Op Vit Shp Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Dns Micrite Cht Wht-Gry Translu-Op Vit Shp Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Dns Micrite Cht Wht-Gry Translu-Op Vit Shp Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn Dns Micrite grad Poor OOM Por (w.Small OOL in pl) Cht Wht-Peach-Amber Translu-Op Vit Shp Fos (Fuss) Chalk Sh Char-Gry-Grn Soft-Fissil No Odor ? Min Flor No Stn NS

Sh Char-Gry-Grn Soft-Fissil Ls Wht-Crm-Gry FxIn Tr Poor IxIn Dns Micrite Grad Poor OOM Por (w/Small OOL in pl) Cht Wht-Peach-Amber Translu-Op Vit Shp Fos (Fuss) Chalk No Odor ? Min Flor No Stn NS

Sh Char-Gry-Grn Soft-Fissil "Ls Wht-Crm-Gry FxIn Tr Poor IxIn Dns Micrite Grad Poor OOM Por (w/Small OOL in pl) Cht Wht-Peach-Amber Translu-Op Vit Shp Fos (Fuss) Chalk No Odor ? Min Flor No Stn NS

Ls Wht-Crm-Gry FxIn Tr Poor IxIn Dns Micrite grad Poor OOM Por (w/Small OOL in pl) Cht Wht-Peach-Amber Translu-Op Vit Shp Fos (Fuss) Chalk Sh Char-Gry-Grn Soft-Fissil No Odor ? Min Flor No Stn NS

Ls Crm FxIn Poor IxIn Por Micritic Grad Ls FxIn Poor IxIn Por Fos (Fuss, Crin) Chalk ? Min Flor Sh Tr Red (Wash Red)-Char-Gry No Odor No Stn NS

Ls Crm FxIn Poor IxIn Por Micritic Grad Ls FxIn Poor IxIn Por Fos (Fuss, Crin) Chalk ? Min Flor Sh Tr Red (Wash Red)-Char-Gry No Odor No Stn NS

### ROOT SHALE 3463' (-652')

Ls Crm FxIn Poor IxIn Por Micritic Grad Ls FxIn Poor IxIn Por Fos (Fuss, Crin) Chalk ? Min Flor Sh Tr Red (Wash Red)-Char-Gry No Odor No Stn NS

Sh Red-Gry-Char Abd Soft (Wash Red) Ls Crm Tr Poor OOM Por Poor Dis Poor Devel Chalk No Odor Sli Tr Min Flor AA No Stn NS

Sh Red-Gry-Char Abd Soft (Wash Red) Ls Crm Tr Poor OOM Por Poor Dis Poor Devel Chalk No Odor Sli Tr Min Flor AA No Stn NS

### STOTLER 3488' (-677)

Ls Gry-Crm MicroxIn Dns Micrite Grad Poor-Fair Pin-Pt IxIn Por Cht Wht Op Shp Vit Chalky Sh Gry Soft No Odor Good Flor (Lt Grn-Wht) No Stn SG

Ls Wht-Crm MicroxIn-FxIn Dns Micrite Grad Poor-Fair Pin-Pt IxIn Por (w/Fair-Med SG) Grad Poor OOL (w/OOL in pl) No Dissolu No Leaching Por Cht Wht Op Shp Vit Chalky Sh Gry Soft No Odor Good Flor (Lt Grn-Wht) No Stn SG

Ls Wht-Crm MicroxIn-FxIn Dns Micrite Grad Fair Pin-Pt IxIn Por (w/Med SG) Cht Wht Op Shp Vit Chalky No Odor Good Flor (Lt Grn-Wht) No Stn SG

30" CGS @ 3540' Ls Wht MicroxIn-FxIn Dns Micrite Grad Fair Pin-Pt IxIn Por (w/SSG) Grad Ls Crm-Tan Good Vug OOM Por Good Leaching Good Develop Good InterOOM Por Chalky No Odor Good Flor (Lt Grn-Wht) No Stn SSG

60" CGS @ 3540' Ls Wht-Gry MicroxIn Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalky No Odor Sli Tr Flor (Lt Grn-Wht) No Stn NS

Ls Wht-Crm-Gry MixroIn-FxIn Dns Micrite Grad Poor OOL Por (w/OOL in pl) Poor Develop Poor Leaching Cht Drk Gry Translu-Op Shp Vit Chalky Sh Char-Gry-Grn-Red Soft No Odor No Flor No Stn NS

IF = 51-102#;  
FF = 97-203#;  
ISIP = 877#;  
FSIP = 832#;  
Temp. = 108 deg. F.

FF Gas Gauge:  
@ 10" = 288 Mcf;  
@ 20" = 398 Mcf;  
@ 30" = 449 Mcf;  
@ 40" = 473 Mcf;  
@ 50" = 487 Mcf;  
@ 60" = 497 Mcf;  
@ 70" = 510 Mcf;  
@ 80" = 522 Mcf;  
@ 90" = 522 Mcf;  
@ 100" = 522 Mcf;  
@ 110" = 522 Mcf;  
@ 120" = 522 Mcf.

~DST # 2~  
Interval: 3537'-3580'.  
Times: 5"-90"-40"-120";  
Blow: IF= BOB/0.45";  
FF=GTS/Instant. GTS/7"  
(See Gauge Report Below).

Recovery: 3375' GIP: 130'  
TF: 70' M; 60' SWCM (7% W & 93% M); Chl.= 25,000  
Ppm; PH= 7.0; RW=0.32 @ 66 degrees F..

Pressures:  
IH = 1660#;  
FH = 1657#;  
IF = 23-30#;  
FF = 29-60#;  
ISIP = 929#;  
FSIP = 916#;  
Temp. = 103 deg. F.

FF Gas Gauge:  
@ 10" = 21.9 Mcf;  
@ 20" = 19.9 Mcf;  
@ 30" = 15.4 Mcf;  
@ 40" = 12.5 Mcf.

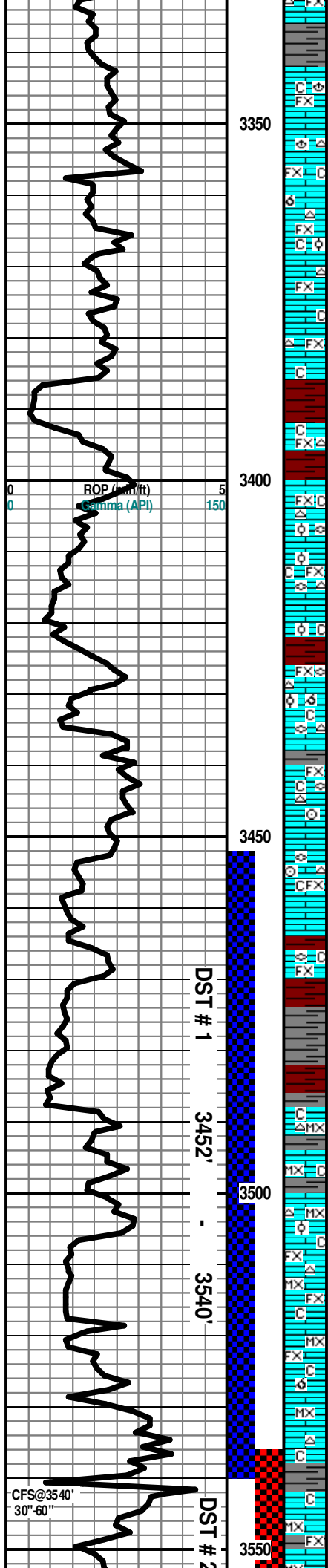
Mudco Ck @ 3540' @  
1:35 PM 3/22/14  
Vis= 48;  
WT= 9.3;  
PV= 15;  
YP= 17;  
WL= 11.6;  
Cake= 1;  
Chl= 3,800;  
Cal= 200;  
Sol= 6.9%  
LCM= 1#;  
DMC=\$1,087.85;  
CMC=\$10,186.95

GAS KICK = 114 UNITS.

GAS KICK = 98 UNITS.

GAS KICK = 75 UNITS.

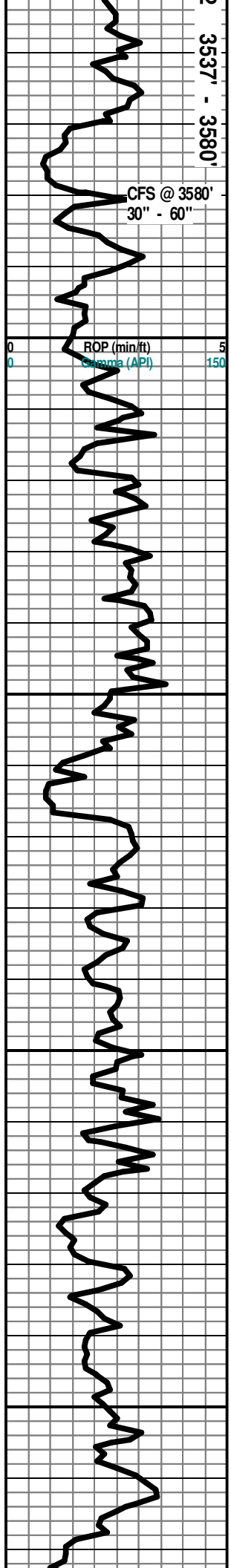
PIPE STRAP = <1.76> LONG TO BOARD. NO COR. MADE.  
Slate Change  
TRIP GAS



DST # 1  
3452'  
-  
3540'

DST # 2  
3550'

CFS@3540'  
30"-60"



30" CGS @ 3580' Ls Wht-Crm MicroIn-FxIn Dns Micrite Grad Fair Pin-Pt IxIn Por (w/Fair-Med SSG) Cht Wht Op Shp Vit Chalky Faint Odor Sli ? Flor (Lt Grn-Wht) No Stn SSG

**TARKIO 3564' (-753)**

60" CGS @ 3580' Ls Wht MicroIn-FxIn Dns Micrite Grad Fair Pin-Pt IxIn Por (w/SSG) Grad Ls Crm-Tan Med-Good Vug OOM Por Tr Med-Good Leaching Med-Good Develop Med-Good InterOOM Por Cht Wht-Lt Gry Op Shp Vit Fos (Fuss, Pelec) Chalky ? Faint Odor Sli ? Flor (Lt Grn-Wht) No Stn SSG

Ls Wht-Gry FxIn Poor IxIn Por Micritic Grad FxIn-MicroIn Por (w/Glacu Includ) Fos (Crin) Chalk Cht Wht-Gry Op Shp Vit Scat Flor (Lt Grn) No Odor Sli Flor ? SSG

Ls Wht-Gry FxIn Poor IxIn Por Micritic Grad FxIn-MicroIn Por (w/Glacu Includ) Fos (Crin) Chalk Cht Wht-Gry Op Shp Vit Scat Flor (Lt Grn) No Odor Sli Flor ? SSG

Sh Char-Gry Soft Grad Fissil Ls Crm FxIn Dns Micritic V Abd Chalk No Odor No Flor No Stn NS

Sh Char-Gry Soft Grad Fissil Ls Crm FxIn Dns Micritic V Abd Chalk No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Grad MicroIn Cht Wht-Drk Gry Op Shp Vit Fos (Bry) Chalk Sh Char-Gry- Maroon Soft-Fissil No Flor No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Grad MicroIn Chalk Sh Char-Gry- Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Grad MicroIn Chalk Sh Char-Gry- Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Grad MicroIn Chalk Sh Char-Gry- Maroon Soft-Fissil No Odor No Flor No Stn NS

**BERN 3678' (- 867)**

Ls Gry FxIn Poor IxIn Por Grad MicroIn Fos (Fuss) Abd Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Gry-Crm FxIn-MicroIn Poor IxIn Por Micrite Grad Pin-Pt IxIn Por Barren Grad Poor OOL Por (w/Small Ooids in pl) Poor Develop Poor leaching Barren Chalk Sh Char-Gry Soft-Fissil No Flor No Odor No Flor No Stn NS

Ls Wht-Gry FxIn Poor IxIn Por Grad MicroIn Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Gry FxIn Poor IxIn Por Grad MicroIn Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor IxIn Por Dns Micritic (w/Fos (Crin) Includ) Sh Char-Gry Tr ? Min Flor (Dull Gm-Wht) No Odor NS

Ls Wht FxIn Poor IxIn Por Dns Micritic (w/Fos (Crin) Includ) Sh Char-Gry Tr ? Min Flor (Dull Gm-Wht) No Odor NS

Ls Wht FxIn Poor IxIn Por Dns Micritic (w/Fos (Crin) Includ) Sh Char-Gry Tr ? Min Flor (Dull Gm-Wht) No Odor NS

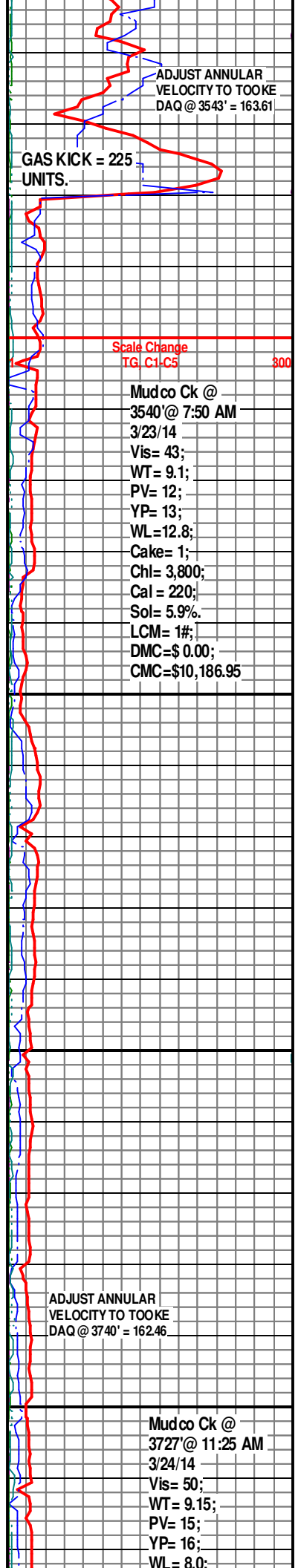
Ls Wht FxIn Poor IxIn Por Dns Micritic (w/Fos (Crin) Includ) Sh Char-Gry Tr ? Min Flor (Dull Gm-Wht) No Odor NS

Ls Wht-Crm FxIn Tr/Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM/Pelletal Por Tr Poor Dissolu Chalk Wht Sh Char-Red Soft No Odor No Flor No Stn NS

**TOPEKA 3758' (- 947)**

Ls Wht-Crm FxIn Tr/Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM/Pelletal Por Tr Poor Dissolu Chalk Wht Sh Char-Red Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor

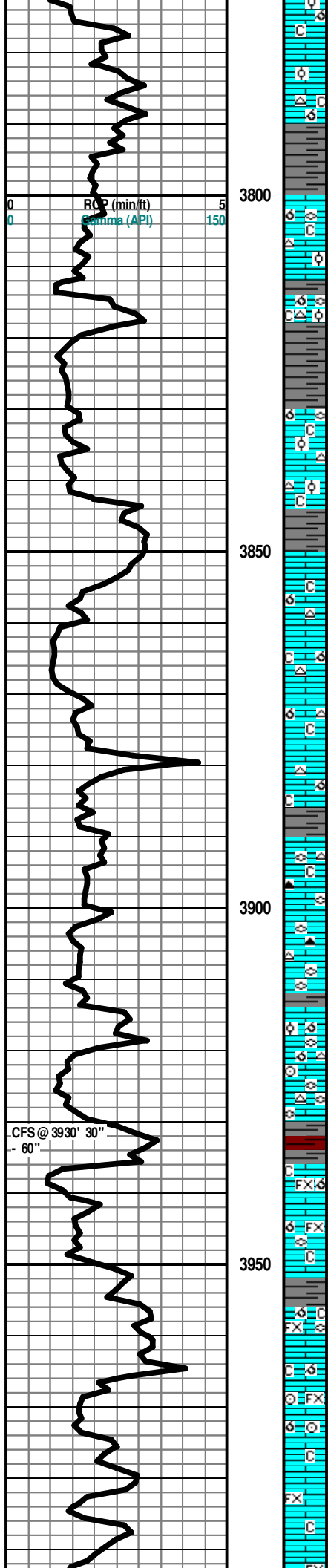


Scale Change  
TG C1C5 300

Mudco Ck @  
3540' @ 7:50 AM  
3/23/14  
Vis= 43;  
WT= 9.1;  
PV= 12;  
YP= 13;  
WL=12.8;  
Cake= 1;  
ChI= 3,800;  
Cal = 220;  
Sol= 5.9%  
LCM= 1#;  
DMC=\$ 0.00;  
CMC=\$10,186.95

ADJUST ANNULAR  
VELOCITY TO TOOKE  
DAQ @ 3740' = 162.46

Mudco Ck @  
3727' @ 11:25 AM  
3/24/14  
Vis= 50;  
WT= 9.15;  
PV= 15;  
YP= 16;  
WL= 8.0;



OOL/OOM Por Poor Dissolu Chalk Wht Soft Cht Wht Op Shp Vit (Tr Only)  
Sh Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor  
Dissolu Chalk Wht Soft V Abd Cht Wht Op Shp Vit (Tr Only) Sh Gry-Grn Fissil Soft No Odor  
No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor  
Dissolu Fos (Fuss in Cht/LS AA) Chalk Wht V Abd Soft Cht Wht Op Shp Vit (Tr Only) Sh  
Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor  
Dissolu Fos (Fuss in Cht/LS AA) Chalk Wht V Abd Soft Cht Wht Op Shp Vit (Tr Only) Sh  
Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor  
Dissolu Fos (Fuss in Cht/LS AA) Chalk Wht V Abd Soft Cht Wht Op Shp Vit (Tr Only) Sh  
Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor  
Dissolu Fos (Fuss in Cht/LS AA) Chalk Wht V Abd Soft Cht Wht Op Shp Vit (Tr Only) Sh  
Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor  
Dissolu Fos (Fuss in Cht/LS AA) Chalk Wht V Abd Soft Cht Wht Op Shp Vit (Tr Only) Sh  
Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Grad Tr/OOL Por w/ OOL in pl Poor Develop Poor  
Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char-Red Fissil No Odor No  
Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Grad Tr/OOM Por Poor InterOOM Por Poor Develop  
Poor Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char-Red Fissil No  
Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Grad Tr/OOM Por Poor InterOOM Por Poor Develop  
Poor Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char-Red Fissil No  
Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Grad Tr/OOM Por Poor InterOOM Por Poor Develop  
Poor Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char Fissil No Odor No  
Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Grad Tr/OOM Por Poor InterOOM Por Poor Develop  
Poor Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char Fissil No Odor No  
Flor No Stn NS

Ls Crm-Wht-Gry FxIn Poor-Fair IxIn Wht Abd Cht Blk-Wht Op Shp Vit Sh  
Char Fos (Fuss) Tr/Red Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry FxIn Poor-Fair IxIn Wht Abd Cht Blk-Wht Op Shp Vit Sh  
Char Fos (Fuss) Tr/Red Fissil No Odor No Flor No Stn NS

30" CFS @ 3930' Ls Wht FxIn Med-Good OOM/OOL/Fos (Fuss) Por  
Med-Good InterOOM-InterFos (Crin, Fuss) Por Cht Gry Op Shp Vit Chalky  
Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

60" CFS @ 3930' Ls Wht FxIn Med-Good OOM/OOL/Fos (Fuss) Por  
Med-Good InterOOM-InterFos (Crin, Fuss) Por Cht Gry Op Shp Vit Chalky  
Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

**LECOMPTON 3946 ( - 1135 )**

Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dissolu Poor  
Develop) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dissolu &  
Poor Develop) Fos (Fuss) Chalk Sh Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor  
NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por  
(w/Poor-Fair Dissolu & Poor Develop) Fos (Fuss) Chalk Sh Grn-Char Fissil  
Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por  
(w/Poor-Fair Dissolu & Poor Develop) Fos (Crin) Chalk Sh Char Fissil Scat  
? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry AA FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por  
(w/Poor-Fair Dissolu & Poor Develop) Fos (Crin) Chalk Sh Char Fissil  
Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Crm-Gry FxIn Poor-Fair IxIn Por Chalk Wht Soft V Abd Sh  
Char-Grn Fissil No Odor No Stn No Flor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por

Cake= 1;  
Chl= 3,300;  
Cal = 40;  
Sol= 5.6%.  
LCM= 2#;  
DMC=\$1,644.85;  
CMC=\$11,831.80

TG C1:C5 800

Extractor Plugged Off.

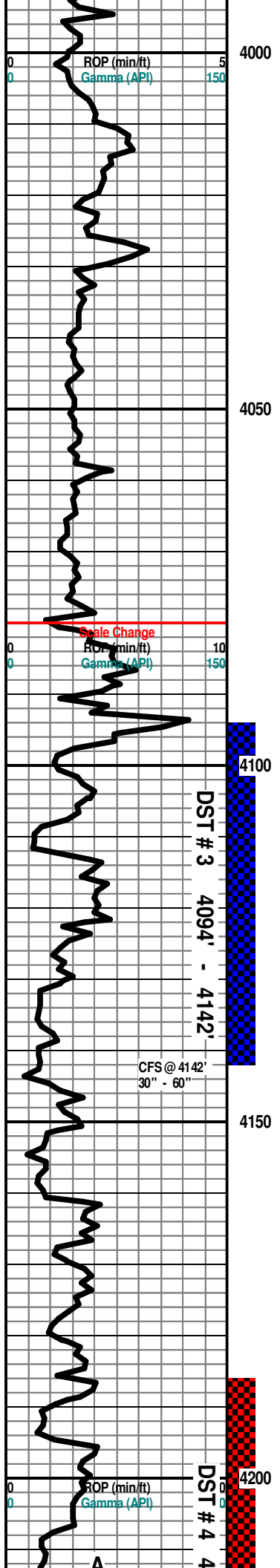
REPLACE EXTRACTOR FILTER @  
3860' LAG DEPTH.

ADJUST ANNULAR  
VELOCITY TO TOOKE  
DAQ @ 3914' = 161.55

ADJUST ANNULAR VELOCITY TO TOOKE  
DAQ @ 3970' = 161.28

~DST # 3~

Interval: 4094'-4142'.  
Times: 5"-90"-60"-120";  
Blow: IF= BOB/0.30". ISIP  
= 1" Blow Back.  
FF=BOB/45"(w/GTS @ 20").  
FOIP= BOB/25"(w/GTS @ 20").



Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por  
 (w/Poor-Fair Dissolu Poor Develop) Fos (Fuss) Chalk Sh Char Fissil Scat ?  
 Min Flor (Dull Wht-Grn) No Odor NS

Ls Crm-Brn Poor OOM Por Poor Develop Poor Leaching Chalk Wht Abd  
 Fos (Brach, Crin) Sh Char Fissil No Odor ? Min Faint Flor No Stn NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por  
 (w/Poor-Fair Dissolu Poor Devel) Fos (Fuss) Chalk Sh Char Fissil Scat ?  
 Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por  
 (w/Poor-Fair Dissolu Poor Devel) Fos (Fuss) Chalk Sh Char Fissil Scat ?  
 Min Flor (Dull Wht-Grn) No Odor NS

Ls Crm-Wht Poor OOM Por Poor Develop Poor Poor Leaching Chalk Wht  
 V Abd Fos (Brach, Crin) Cht Crm Op Shp Vit Sh Char Fissil No Odor ? Min  
 Faint Flor No Stn NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por  
 (w/Poor-Fair Dissolu Poor Develop) Fos (Fuss) Chalk Sh Char Fissil Scat  
 ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por  
 (w/Poor-Fair Dissolu) Poor Devel Fos (Fuss) Chalk Sh Char Fissil Scat  
 ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Cht Wht-Gry Op Shp Vit Chalk Sh  
 Char-Gry Soft Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Cht Wht-Gry Op Shp Vit Chalk Sh  
 Char-Gry Soft Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Cht Wht-Gry Op Shp Vit Chalk Sh  
 Char-Gry Soft Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Chalk Sh Blk Carb (Tr Only)  
 Char-Gry-Aqua Soft Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Chalk Fos (Gastro) Sh Blk Carb-Char-Gry-Aqua  
 Soft Fissil No Odor No Stn No Flor NS

**HEEBNER 4108' (-1297)**  
 Sh Blk Carb Fissil Abd Ls Wht-Lt Gry FxIn Poor IxIn Por Grad Micrite  
 Barren Cht Wht-Lt Gry Op Shp Vit Chalk No Odor No Stn No Flor NS

30" CFS @ 4142' Ls Wht-Crm-Gry MicroIxIn Micrite Barren Grad Poor Pin-Pt Por Chalky Abd  
 Cht Wht-Lt Gry Translu-Up Shp Vit Sh Blk Carb-Char Fissil Faint Odor No Stn Sli Dull (Lt  
 Grn) Flor ? Sli SG

**TORONTO 4130' (-1319)**  
 60" CFS @ 4142' Ls Wht-Crm MicroIxIn-FxIn Micrite Barren Grad Poor Pin-Pt Por Grad Tr  
 Poor OOM Por Poor Dissolu Poor Leaching Chalky Cht Wht-Lt Gry Translu-Up Shp Vit Fos  
 (Fuss) Sh Blk Carb-Char Fissil Faint Odor No Stn Dull (Lt Grn) Flor (50% in Tray) ? Sli SG

Sh Char-Gry-Blk Carb Fissil Ls Tan-Lt Gry MicroIxIn Poor IxIn Por Grad  
 Micrite Barren Cht Drk-Gry Op Shp Vit Chalk Fissil Abd No Odor No Stn  
 No Flor NS

**DOUGLAS 4152' (-1341)**  
 Sh Char-Gry-Blk Carb Fissil Ls Tan-Lt Gry MicroIxIn Poor IxIn Por Grad  
 Micrite Barren Cht Drk-Gry Op Shp Vit Chalk Fissil Abd No Odor No Stn  
 No Flor NS

Sh Char-Gry-Grn Soft-Fissil w/ Fos (Fuss) Ls Crm-Wht-Gry FxIn Dns  
 Micrite Poor IxIn Por Chalk Wht Soft Abd No Odor No Stn Few Pcs Sli ?  
 Min Flor AA Grad No Flor NS

Sh Char-Gry-Grn Soft-Fissil Ls Crm-Wht-Gry FxIn Dns Micrite Poor IxIn  
 Por Chalk Wht Soft Abd No Odor No Stn Few Pcs Sli ? Min Flor AA Grad  
 No Flor NS

Ls Wht-Crm MicroIxIn-FxIn Poor-Fair IxIn Por Cht Wht-Tan Op Shp Vit  
 Chalk Wht Soft Abd Sh Char-Gry-Grn Tr/Blk Carb Fissil No Odor No Stn  
 Dec Sli ? Min Flor NS

**IATAN 4196' (-1385)**  
 Ls Wht-Crm-Lt Gry FxIn Poor IxIn Granu Por Grad Micrite Barren Chalk Abd Sh Char (w/Pyr  
 Includ)-Gry-Aqua Fissil No Odor No Stn No Flor NS

Recovery: 2815' GIP: 1245' 800  
 TF: 165' M; 195' MCW (65% W  
 & 35% M); 885' VSMCW (95%  
 W & 5% M); Chl.= 112,000  
 Ppm; PH= 6.0; RW=0.11 @ 67  
 degrees F..

**Pressures:**  
 IH = 1955#;  
 FH = 1941#;  
 IF = 96-140#;  
 FF = 176-600#;  
 ISIP = 1187#;  
 FSIP = 1172#;  
 Temp.= 112 degrees F.

**FF Gas Gauge:**  
 @ 20" = 2.92 Mcf;  
 @ 30" = 8.56 Mcf;  
 @ 40" = 9.05 Mcf;  
 @ 50" = 8.39 Mcf;  
 @ 60" = 7.32 Mcf.

Mudco Ck @ 4142' @  
 8:55 AM 3/25/14  
 Vis= 48;  
 WT= 9.15#;  
 PV= 15;  
 YP= 15;  
 WL= 8.8;  
 Cake= 1;  
 Chl= 4,400;  
 Cal = 20;  
 Sol= 5.5%  
 LCM= 2#;  
 DMC=\$ 2,684.40;  
 CMC=\$14,516.20

SH GAS KICK =  
 67 UNITS.

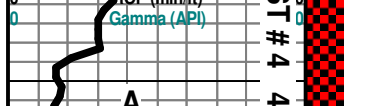
**~DST # 4~**  
 Interval: 4187'-4235'.  
 Times: 5"-90"-60"-120";  
 Blow: IF=BOB/Instant. GTS  
 /4" TSTM. ISIP = No Blow  
 Back. FF=BOB/Instant.  
 FSIP = 1/4" Blow Back. (See  
 Gauge Report Below.)

Recovery: 3895' GIP: 260' TF:  
 (195' M; 65' GSWCM (4% G.,  
 4% W & 92% M). Chl. 27,000  
 Ppm; PH = 7.5; RW=0.38. @ 56  
 degrees F..

**Pressures:**  
 IH = 2040#;  
 FH = 2037#;  
 IF = 52-94#;  
 FF = 106-211#;  
 ISIP = 1211#;  
 FSIP = 1184#;  
 Temp.= 116 degrees F.

**FF Gas Gauge:**  
 @ 10" = 487 Mcf;  
 @ 20" = 581 Mcf;  
 @ 30" = 639 Mcf;  
 @ 40" = 697 Mcf;  
 @ 50" = 732 Mcf;  
 @ 60" = 756 Mcf;  
 @ 70" = 767 Mcf.

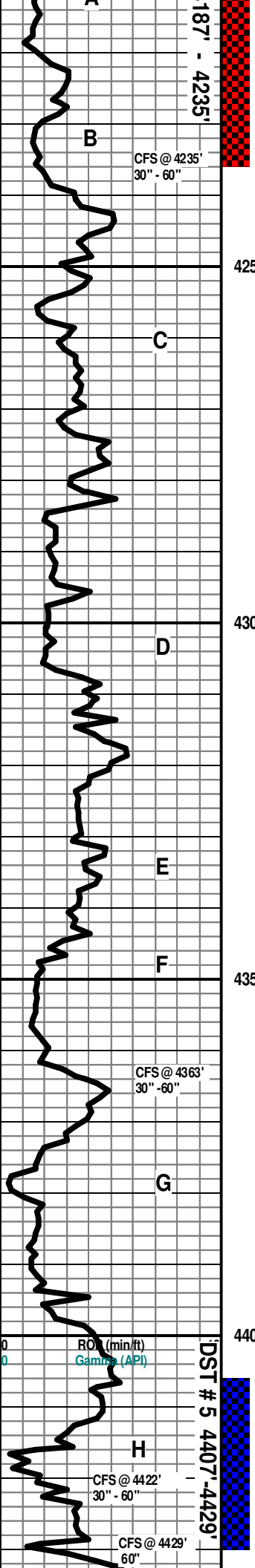
TG C1-C5 800



**LANSING 4208 (-1397)**  
 30" CFS @ 4235' Ls Wht-Crm-Gry MicroIxIn (w/ Poor) Pin-Pt IxIn Por (w/

Mudco Ck @  
 4235' @ 11:00 AM  
 3/26/14  
 GAS KICK =





Poor SG (Under Heat) ? Frac Por ? Sat Stn Flor (Lt Grn-Wht- 20% in Tray)  
 Cht Wht-Tan Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor SSG

60" CFS @ 4235' Ls Wht-Crm-Gry Microxln (w/ Poor) Pin-Pt Ixln Por (w/  
 Poor SG (Under Heat) ? Frac Por ? Sat Stn Flor (Lt Grn-Wht- 60% in Tray)  
 Cht Wht-Tan-Gry-Lt Org Translu-Op Shp Vit Chalk Wht Sh Aqua-Char-Gry  
 Fissil No Odor SSG

Ls Crm-Lt Gry Microxln Dns Miccrite Grad Poor Ixln Por Cht Wht Op Shp  
 Vit Sh Char-Gry Fissil Chalk No Odor No Flor No Flor NS

Ls Crm-Lt Gry Microxln Dns Miccrite Grad Poor Ixln Por Cht Wht Op Shp  
 Vit Sh Char-Gry Fissil Chalk No Odor No Flor No Flor NS

Ls Crm-Lt Gry Microxln Dns Miccrite Grad Poor Ixln Por Cht Wht Op Shp  
 Vit Sh Char-Gry Fissil Chalk No Odor No Flor No StnNS

Ls Crm-Lt Gry Microxln Dns Miccrite Grad Poor Ixln Gran Pin-Pt Por  
 Barren Cht Wht Op Shp Vit Fos (Pelec) Chalk Sh Char-Gry Fissil No Odor  
 No Flor No Stn NS

Ls Crm-Lt Gry Microxln Dns Miccrite Grad Poor Ixln Gran Pin-Pt Por  
 Barren Cht Tan Op Shp Vit Chalk Abd Sh Char-Gry Fissil No Odor No  
 Flor No Stn NS

Ls Crm-Gry Fxln Poor Ixln Por Micritic Grad Good OOM Por Good Dissolu  
 Good Leaching Chalk Cht Wht-Drk Gry Translu-Op Shp Op Vit Sh Char No  
 Odor No Flor NoStn NS

Ls Crm-Gry Fxln Poor Ixln Por Micritic Grad Good OOM Por Good Dissolu  
 Good Leaching Chalk Abd Cht Wht-Drk Gry-Blk Translu- Op Shp Op Vit  
 Fos (Crin) Sh Char No Odor No Flor NoStn NS

Ls Crm-Lt Gry-Drk Gry Microxln Poor Ixln Por Micritic Chalk Cht Wht-Drk  
 Gry-Blk Translu-Op Shp Op Vit Sh Char No Odor No Flor NoStn NS

Ls Crm-Tan-Lt Gry Microxln Poor Ixln Por Micritic Chalk Cht Wht-Lt Gry  
 Translu-Op Shp Op Vit Sh Char-Gry No Odor No Flor NoStn NS

Ls Crm-Tan-Lt Gry Fxln Poor Ixln Por Micritic Grad Poor Granular Pin-Pt  
 Ixln Por Chalk Cht Wht Op Shp Op Vit Sh Char-Gry ? Faint Odor No Flor  
 NoStn NS

30" CFS @ 4263' Ls Wht-Crm-Lt Gry Fxln Poor Ixln Granular Por (w/Pyr  
 Inklus) Grad Poor OOM Por (w/Small OOids in pl w/No-Poor Dissolu Poor  
 Develop Poor Leaching) Cht Wht Op Shp Vit Chalk Sh Char-Gry Fissil  
 No Flor ? Faint Odor No Stn NS

60" CFS @ 4263' Ls Wht-Crm-Lt Gry Fxln Poor Ixln Granular Por (w/Pyr  
 Inklus) Grad Poor OOM Por (w/Small OOids in pl w/No-Poor Dissolu Poor  
 Develop Poor Leaching) Cht Wht Op Shp Vit Chalk Sh Char-Gry Fissil  
 Good Scat Flor (60% in Tray) No Odor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Gran Por Grad Poor-Fair OOM Por (w/Small  
 OOids in pl & Poor Dissolu Poor Develop) Chalk Sh Char-Gry Fissil  
 Good Flor (10% in Tray) No Odor No Stn NS

Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL in pl) Med-Good  
 Dissolu Med-Good Develop Good Vug Leaching Por Barren Cht Amber  
 Translu Shp Vit Chalk Sh Char No Flor No Odor No Stn NS

Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL in pl) Med-Good  
 Dissolu Med-Good Develop Good Vug Leaching Por Barren Chalk Dec Sh  
 Char Fair Inc Flor (20% in Tray) No Odor No Stn NS

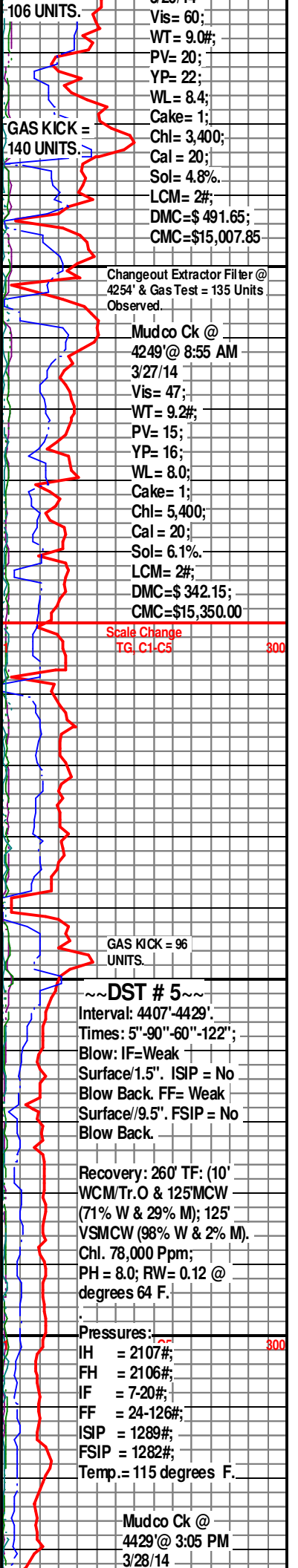
Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL in pl) Med-Good  
 Dissolu Med-Good Develop Good Vug Leaching Por Barren Chalk Dec Sh  
 Char Fair Inc Flor (10% in Tray)No Odor No Stn NS

30" CFS @ 4422' Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL  
 in pl) Med-Good Dissolu Med-Good Develop Good Vug Leaching Por  
 Barren Fos (Brach) Chalk Sh Char Fair-Med Inc Flor(10% in Tray) ? Faint  
 Odor No Stn NS

60" CFS @ 4422' Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL in pl) Med-Good  
 Dissolu Med-Good Develop Good Vug Leaching Por Barren Chalk Sh Char Fair-Med Inc Flor  
 (30% in Tray) NoOdor No Stn NS

60" CFS @ 4429' Ls Crm-Brn Abd Fxln Med-Good OOM Por (w/ Med OOL in pl) Med-Good  
 Dissolu Med-Good Develop Good Vug Leaching Por Barren Chalk Sh Char Fair-Med Inc Flor  
 (60% in Tray) ? Faint Odor No Stn NS

Ls Wht V Fxln Poor Ixln Por Micritic Grad Ls Gry w/ (Few Pcs) OOL Fair Por (w/ Abd OOL in  
 pl) Poor Dissolu Poor-Fair Inter-OOL Por (w/ Poor-Fair Leaching Por Fair-Good Develop) Cht



Changeout Extractor Filter @  
 4254' & Gas Test = 135 Units  
 Observed.

Mudco Ck @  
 4249' @ 8:55 AM  
 3/27/14  
 Vis= 47;  
 WT= 9.2#;  
 PV= 15;  
 YP= 16;  
 WL= 8.0;  
 Cake= 1;  
 Chl= 5,400;  
 Cal= 20;  
 Sol= 6.1%  
 LCM= 2#;  
 DMC=\$ 342.15;  
 CMC=\$15,350.00

Scale Change  
 TG C1C5 300

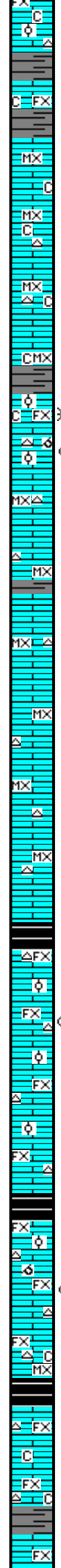
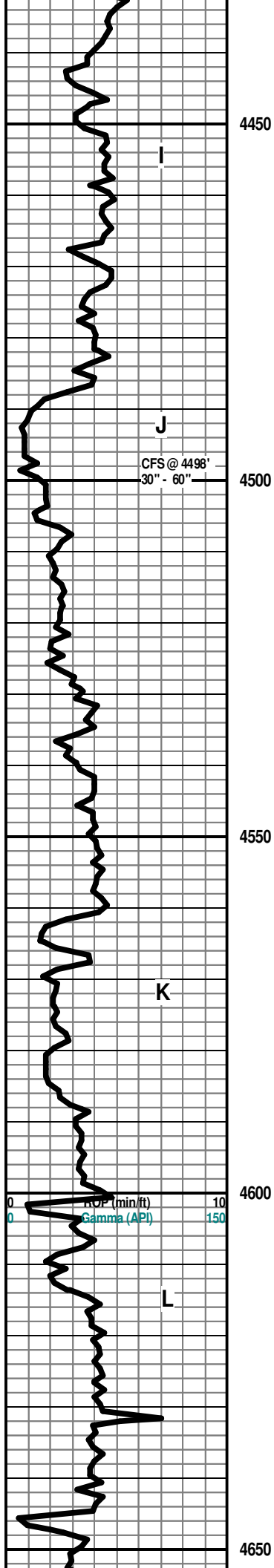
GAS KICK = 96  
 UNITS.

~DST # 5~  
 Interval: 4407'-4429'.  
 Times: 5"-90"-60"-122";  
 Blow: IF=Weak  
 Surface/1.5'. ISIP = No  
 Blow Back. FF= Weak  
 Surface/9.5'. FSIP = No  
 Blow Back.

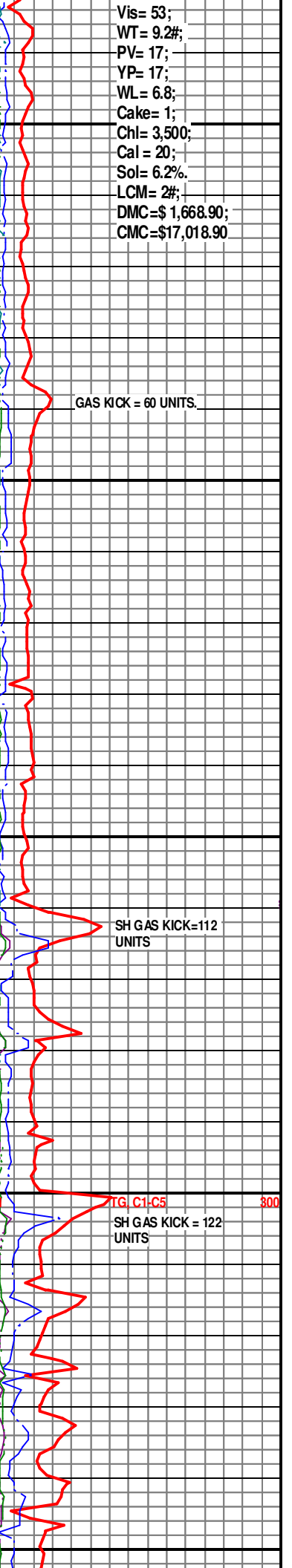
Recovery: 260' TF: (10'  
 WCM/Tr.O & 125'MCW  
 (71% W & 29% M); 125'  
 VSMCW (98% W & 2% M).  
 Chl. 78,000 Ppm;  
 PH= 8.0; RW= 0.12 @  
 degrees 64 F.

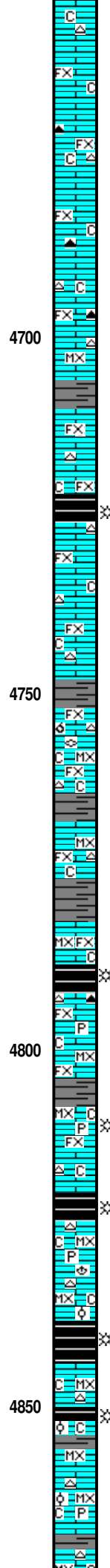
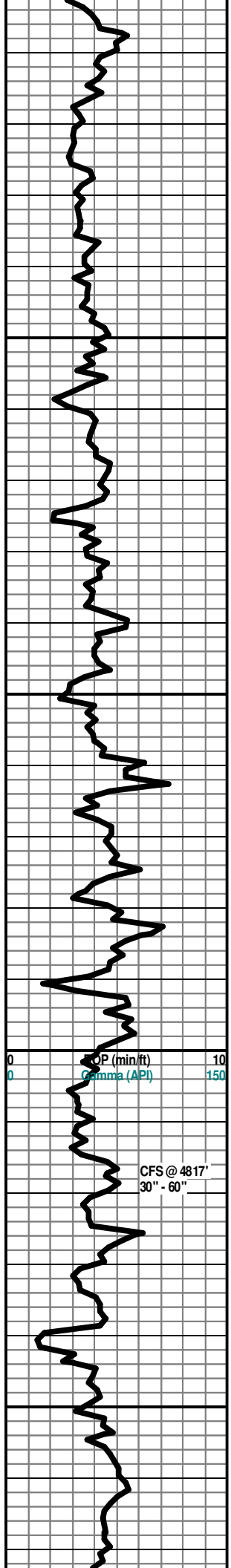
Pressures:  
 IH = 2107#;  
 FH = 2106#;  
 IF = 7-20#;  
 FF = 24-126#;  
 ISIP = 1289#;  
 FSIP = 1282#;  
 Temp.= 115 degrees F.

Mudco Ck @  
 4429' @ 3:05 PM  
 3/28/14



Ls Wht V FxIn w/Poor IxIn Por Micritic Sh Char-Grn-Gry No Odor No Flor NoStn NS  
 Ls Wht V FxIn w/Poor IxIn Por Micritic Sh Char-Grn-Gry No Odor No Flor NoStn NS  
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Abd Sh Char-Grn-Gry No Odor No Flor NoStn NS  
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Translu-Op Shp Vit Chalk Sh Char-Grn-Gry No Odor No Flor NoStn NS  
 30" CFD @ 4498' Ls Wht-Crm MicroIn-FxIn Dns Micrite Grad Poor-Fair Pin-Pt IxIn Por Grad Poor-Fair OOL Por (w/Small OOL in pl) Cht Lt Gry Op Shp Vit Chalky Abd Sh Char-Gry Good Hvy Odor No Flor No Stn Sli Inc ? SG  
 60" CFD @ 4498' Ls Wht-Crm-Tan FxIn Fair-Med Pin-Pt IxIn Por Grad Fair-Med OOM Por (w/Small OOL in pl) Cht Lt Gry Op Shp Vit Chalky Abd Sh Char-Gry Strong Hvy Odor Sli Flor (Lt Grn) No Stn ? SG  
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Sh Char-Grn-Gry No Odor No Flor NoStn NS  
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Sh Char-Grn-Gry No Odor No Flor NoStn NS  
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Sh Char-Grn-Gry No Odor No Flor NoStn NS  
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry-Wht Op Shp Vit Chalk Sh Char-Grn-Gry No Odor Faint Flor No Stn NS  
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Abd Sh Char-Grn-Gry No Odor No Flor NoStn NS  
 Ls Crm-Tan MicroIn Poor IxIn Por Micritic Cht Gry Op Shp Vit Chalk Abd Sh Char-Grn-Gry No Odor No Flor NoStn NS  
**STARK SHALE 4562' (- 1761)**  
**KANSAS CITY "SWOPE (K)" 4566' (-1765)**  
 Sh Blk Carb Fissil Ls Crm-Tan FxIn Dns Micrite AA Grad (wGood OOM Por & Good InterOOM Por) Good Leaching Por Good Develop Barren Cht Gry-Chalky ? Sli Flor (3 Pcs)No Odor NS  
 Ls Crm-Brn FxIn (w/ Poor OOM Por Poor-Fair Inter OOM Por) Poor Leaching Poor Develop Grad Micritic Cht Wht-Lt Gry Op Shp Vit Chalky Sh Blk Carb Fissil No Odor No Flor No Stn NS  
 Ls Crm-Brn FxIn (w/ Poor OOM Por Poor-Fair Inter OOM Por) Poor Leaching Poor Develop Grad Micritic Cht Wht-Lt Gry Op Shp Vit Chalky Sh Blk Carb Fissil No Odor No Flor No Stn NS  
 Ls Crm-Brn FxIn (w/ Poor OOM Por Poor-Fair Inter OOM Por) Poor Leaching Poor Develop Grad Micritic Cht Wht-Lt Gry Op Shp Vit Chalky Sh Blk Carb Fissil No Odor No Flor No Stn NS  
**HUSHPUCKNEY SHALE 4601 (-1790)**  
**KANSAS CITY "HERTHA (L)" 4603' (-1792)**  
 Sh Blk Carb Fissil Ls Crm-Gry FxIn Grad Micritic Chalky V Abd No Odor No Flor No Stn NS  
 Ls Crm-Brn FxIn (w/ Poor OOM Por Poor-Fair Inter OOM Por) Poor Leaching Poor Develop Grad Micritic Cht Wht-Lt Gry Op Shp Vit Chalky Sh Blk Carb Fissil No Odor No Flor No Stn NS  
 Ls Wht-Gry MicroIn-FxIn Poor IxIn Por Micritic Gran Por Poor Igran Por Dns Micrite Barren Chalk Cht Smoky Gry-Tan Op Vit Shp Sh Blk Carb-Char-Gry Fissil No Stn No Flor No Odor NS  
 Ls Wht-Gry FxIn Poor IxIn Por Micritic Gran Por Poor Igran Por Dns Micrite Barren Chalk Cht Smoky Gry Op Vit Shp Sh Blk Carb-Char Fissil No Stn No Flor No Odor NS  
 Ls Wht-Gry FxIn Poor IxIn Por Micritic Gran Por Poor Igran Por Dns Micrite Barren Chalk Cht Smoky Gry-Tan Op Vit Shp Sh Char-Blk Carb Fissil No Stn No Flor No Odor NS  
 Ls Wht-Gry Tan FxIn Poor IxIn Por Micritic Gran Por Poor Igran Por Dns





Ls Wht-Gry-Tan Fxln Poor Ixln Por Micritic Gran Por Poor Igran Por Dns  
 Micrite Barren Chalk Cht Smoky Gry-Tan Op Vit Shp Sh Char-Blk Carb  
 Fissil No Stn No Flor No Odor NS

Ls Wht-Gry-Tan Fxln Poor Ixln Por Micritic Gran Por Poor Igran Por Dns  
 Micrite Barren Chalk Cht Smoky Gry-Tan Op Vit Shp Sh Char-Blk Carb  
 Fissil No Stn No Flor No Odor NS

Ls Wht-Gry-Tan Fxln Poor Ixln Por Micritic Chalk Cht Gry-Drk Gry  
 Translu-Op Vit Shp No Stn No Flor No Odor NS

Ls Wht-Gry Fxln Poor Ixln Por Micritic Chalk Cht Drk-Gry (w/OOL Inclus)  
 Op Vit Shp No Stn No Flor No Odor NS

Ls Wht-Gry Fxln Poor Ixln Por Micritic Chalk Cht Drk-Gry (w/OOL Inclus)  
 Op Vit Shp No Stn No Flor No Odor NS

**MARMATON 4710' (- 1899)**

Ls Wht-Crm Fxln Poor Ixln Por Dns Micritic Chalk Cht Wht-Tan Transl-Op  
 Vit Shp Sh Char-Gry-Aqua Fissil No Flor No Stn No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Dns Micritic Chalk Cht Wht-Tan Transl-Op  
 Vit Shp Sh Char-Gry Fissil No Flor No Stn No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Dns Micritic Chalk Cht Wht-Tan Transl-Op  
 Vit Shp Sh Blk Carb Char-Gry-Aqua Fissil No Flor No Stn No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Dns Micritic Chalk Cht Wht-Gry Transl-Op  
 Vit Shp Sh Char-Gry-Aqua Fissil No Flor No Stn No Odor NS

Ls Wht-Crm Fxln Poor Ixln Por Dns Micritic Chalk Cht Wht-Gry Transl-Op  
 Vit Shp Sh Char-Gry-Aqua Fissil No Flor No Stn No Odor NS

Ls Wht-Crm-Tan Fxln-Microxin Dns Barren Micrite Cht-Lt Gry Op Shp Vit  
 Fos (Fuss) Chalky Sh Blk Carb-Char Soft-Fissil No Odor No Stn No Flor  
 NS

Ls Wht-Crm-Tan Fxln-Microxin Dns Barren Micrite Cht-Lt Gry Op Shp Vit  
 Chalky Sh Blk Carb-Char Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan Fxln-Microxin Dns Barren Micrite Cht-Lt Gry Op Shp Vit  
 Chalky Sh Blk Carb-Char Soft-Fissil No Odor No Stn No Flor NS

**PAWNEE 4792 (- 1981)**

30" CFS @ 4817' Ls Wht-Crm-Tan Fxln-Microxin Dns Barren Micrite Grad  
 Fxln Poor-Fair Pin-Pt InterGran Por (w/Pyr Inclus) Cht-Lt Gry-Drk Gry  
 Translu-Op Shp Vit Chalky Sh Blk Carb-Char Soft-Fissil No Odor No Stn ?  
 Min Flor (3 Pcs) NS

60" CFS @ 4817' Ls Wht-Crm-Tan Fxln-Microxin Dns Barren Micrite Grad  
 Fxln Poor-Fair Pin-Pt InterGran Por (w/Pyr Inclus) Cht-Lt Gry-Drk Gry  
 Translu-Op Shp Vit Chalky Sh Blk Carb-Char Soft-Fissil No Odor No Stn ?  
 Min Flor (2 Pcs) NS

**FORT SCOTT 4825' (- 2014)**

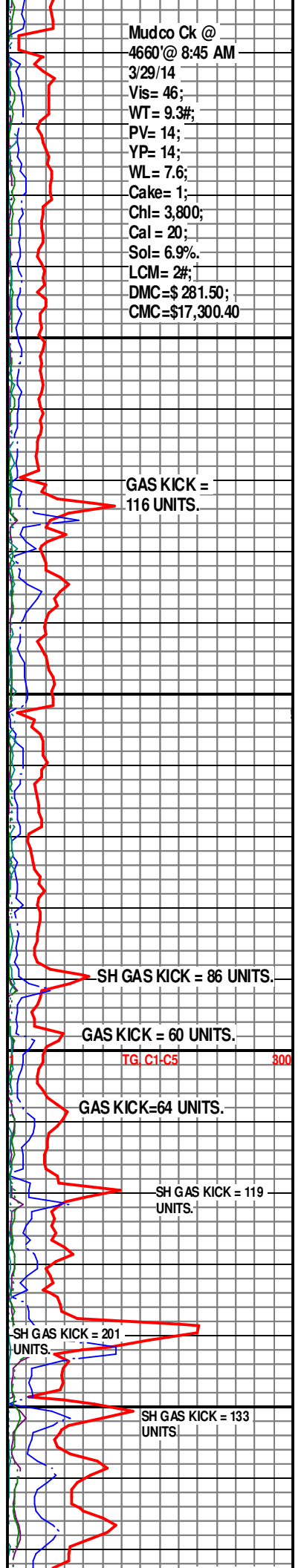
Sh Blk Carb-Char-Aqua/Grn (w/Pyr Inclus) Ls Wht-Crm-Gry Microxin Dns  
 Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid Inclus) Fos (Brach) Chalk No  
 Odor No Stn No Flor NS

**CHEROKEE SHALE 4839' (-2028)**

Sh Blk Carb-Char-Aqua/Grn (w/Pyr Inclus) Ls Wht-Crm-Gry Microxin Dns  
 Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid Inclus) Fos (Brach) Chalk No  
 Odor No Stn No Flor NS

Ls Wht-Crm-Gry Microxin Dns Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid  
 Inclus) Chalk Sh Blk Carb-Char-Aqua/Grn (w/Pyr Inclus) No Odor No Stn  
 No Flor NS

Ls Wht-Crm-Gry Microxin Dns Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid  
 Inclus) Chalk Sh Blk Carb-Char-Aqua/Grn (w/Pyr Inclus) No Odor No Stn  
 No Flor NS



Mudco Ck @  
 4660' @ 8:45 AM  
 3/29/14  
 Vis= 46;  
 WT= 9.3#;  
 PV= 14;  
 YP= 14;  
 WL= 7.6;  
 Cake= 1;  
 Chl= 3,800;  
 Cal = 20;  
 Sol= 6.9%.  
 LCM= 2#;  
 DMC=\$ 281.50;  
 CMC=\$17,300.40

GAS KICK =  
 116 UNITS.

SH GAS KICK = 86 UNITS.

GAS KICK = 60 UNITS.

TG C1:C5 800

GAS KICK=64 UNITS.

SH GAS KICK = 119  
 UNITS.

SH GAS KICK = 201  
 UNITS.

SH GAS KICK = 133  
 UNITS.

**SECOND CCHEROKEE SHALE 4877' (- 2066)**

Sh Blk Carb-Char-Aqua/Grn Ls Crm-Tan MicroIn Dns Micrite Cht Wht Op Shp Vit Fos (Brach) Chalk Sh Blk Carb- Char- Aqua/Grn (w/Pyr Incls) No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid Incls) Chalk Sh Blk Carb-Char-Aqua/Grn (w/Pyr Incls)No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Wht-Lt Gry-Tan (w/Wht OOid Incls) Chalk Sh Blk Carb-Char-Aqua/Grn (w/Pyr Incls) No Odor No Stn No Flor NS

Ls Crm-Tan MicroxIn Dns Micrite No Vis Por Grad FxIn Poor Igran Por Cht Amber-Wht-Tan Translu-Op Shp Vit Chalk Sh Blk Carb - Char- Aqua No Odor No Stn No Flor NS

**THIRD CHEROKEE SHALE 4917' (- 2106)**

Sh Gry-Char-Blk Carb-Gry Fissil Ls Crm-Wht-Gry FxIn Poor IxIn Por Micritic Dns Barren w/Pry Incls Chalk Wht Soft Cht Gry-Wht Transl Shp Fos (Fuss) Vit No Odor No Flor No Stn NS

Ls Crm-Wht-Gry FxIn Poor IxIn Por Micritic Dns Barren w/Pry Incls Chalk Wht Soft Cht Gry-Wht Op (w/OOL Incls) Shp Vit Sh Gry-Char-Blk Carb-Gry-Aqua Fissil No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Micritic Dns Barren Chalk Wht Soft Cht Gry Op Shp Vit Sh Gry-Char-Blk Carb-Gry-Aqua Fissil No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Micritic Dns Barren Chalk Wht Soft Cht Gry Op Shp Vit Sh Gry-Char-Blk Carb-Gry-Aqua Fissil No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor IxIn Por Micritic Dns Barren Chalk Wht Soft Cht Gry Op Shp Vit Sh Gry-Char-Blk Carb Fissil No Odor No Flor No Stn NS

Ls Crm FxIn Poor IxIn Por Micritic Dns Barren Chalk Wht Soft Cht Gry Op Shp Vit Sh Gry-Char Fissil No Odor No Flor No Stn NS

Ls Crm-Wht FxIn Poor IxIn Por Micritic Dns Barren Grad Tr Poor OOL Por (Small Ooids-"Sandy") Grad Tr Dolo Wht-Gry FxIn Tr Granular Chalk Wht Soft Fos (Fuss) Sh Gry-Char Fissil No Odor No Flor No Stn NS

Ls Tan-Crm MicroxIn Dns Micrite No Vis Por Cht Tan-Amber Translu-Op Shp Vit Chalk Sh Blk Carb-Char (Tr Only) No Odor No Stn No Flor NS

**ATOKA SHALE 5001' (-2190)**

Ls Tan-Crm MicroxIn Dns Micrite No Vis Por Cht Tan-Amber Translu-Op Shp Vit Chalk Sh Blk Carb-Char\_Drab Grn No Odor No Stn No Flor NS

Ls Crm- Gry MicroxIn Dns Micrite Inc Cht Drk-Gry Op Shp Vit Sh Blk Carb-Char-Gry-Drab Grn Soft-Fissil V Abd No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Soft-Fissil V Abd Ls Crm- Gry MicroxIn Dns Micrite Cht Drk-Gry Op Shp Vit No Odor No Stn No Flor NS

**MORROW SHALE 5034' (-2223)**

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Soft-Fissil V Abd Ls Crm- Gry MicroxIn Dns Micrite Inc Cht Drk-Gry Op Shp Vit No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Soft-Fissil V Abd Ls Crm- Gry MicroxIn Dns Micrite Inc Cht Drk-Gry Op Shp Vit No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Soft-Fissil V Abd Ls Crm- Gry MicroxIn Dns Micrite Inc Cht Drk-Gry Op Shp Vit No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Soft-Fissil V Abd Ls Crm- Gry MicroxIn Dns Micrite Inc Cht Drk-Gry Op Shp Vit No Odor No Stn No Flor NS

Ls Wht FxIn Dns Micrite Grad Poor Igran OOL (w/Small OOL in pl) Por AA Pyr Mass Fos (Coral) Sh AA No Odor No Flor No Stn NS

Sh Char-Gry-Drab Grn-Red (Wash Red)-Aqua Soft-Fissil V Abd Ls Wht-Crm-Tan MicroxIn Dns Micrite Cht Amber Translu Shp Vit Fos (?)

**MISSISSIPPIAN "STE. GEN" 5187' (-2376')**

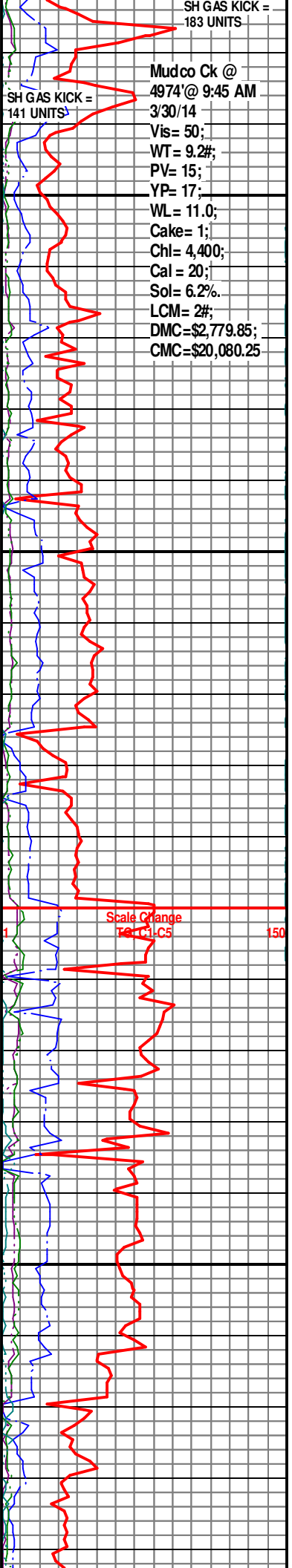
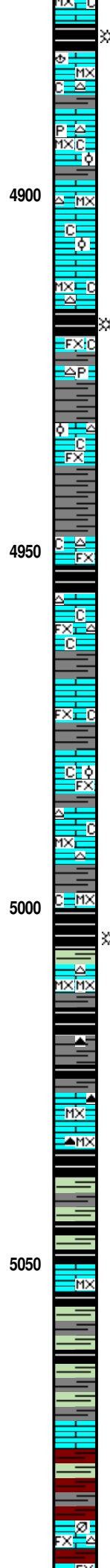
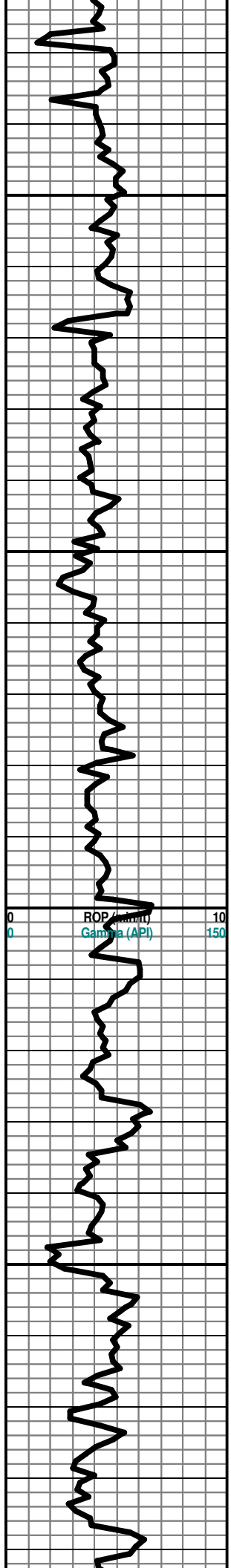
Sh Char-Gry-Drab Grn-Red (Wash Red)-Aqua Soft-Fissil V Abd Ls

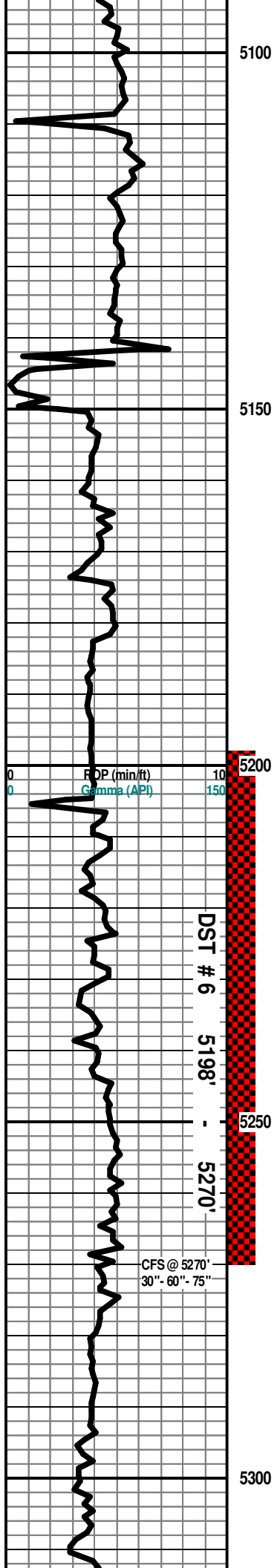
SH GAS KICK = 183 UNITS

Mudco Ck @ 4974' @ 9:45 AM 3/30/14  
Vis= 50;  
WT= 9.2#;  
PV= 15;  
YP= 17;  
WL= 11.0;  
Cake= 1;  
Chl= 4,400;  
Cal = 20;  
Sol= 6.2%  
LCM= 2#;  
DMC=\$2,779.85;  
CMC=\$20,080.25

SH GAS KICK = 141 UNITS

Scale Change  
100 to 150





Wht-Crm-Ian Microxln Micritic Cht Wht-Gry Op Shp Vit Abd Sh Char-Fissil No Odor No Flor NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Soft Chalk Sh Char-Gry -Maroon- Aqua Dec Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren (Tr Glacu) Soft Chalk Sh Char-Gry- Maroon- Aqua Dec Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren (Tr Glacu) Cht Blk (w/Wht Fos Inclus) Op Shp Vit Sh Char-Gry- Maroon- Aqua Dec Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Blk (w/Wht Fos Inclus) Op Shp Vit Chalk Sh Blk Carb-Char-Gry-Maroon- Aqua-Drab Grn Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Tan-Org Translu-Op Shp Vit Chalk Sh Char-Gry-Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Peach-Org Translu-Op Shp Vit Chalk Sh Char-Gry-Maroon-Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Gry FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Peach-Org Translu-Op Shp Vit Chalk Sh Char- Gry-Maroon-Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Gry FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Peach-Org Translu-Op Shp Vit Chalk Sh Char- Gry-Maroon-Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Org Translu-Op Shp Vit Chalk Sh Char- Gry-Maroon- Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren (Tr Glacu) Soft Cht Org Translu Shp Vit Chalk Sh Char-Gry- Maroon- Aqua Dec Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Poor Igran (w/V Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Peach-Org Translu-Op Shp Vit Chalk Sh Char-Gry- Maroon Soft-Fissil Fair-Good Odor No Flor No Stn ? Show

Ls Wht FxIn Poor Igran (w/Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Barren Cht Wht-Gry-Org Translu-Op Shp Vit Abd Chalk Sh Char-Gry- Maroon Soft-Fissil Fair-Good Odor No Flor No Stn ? Show

Ls Wht FxIn Poor Igran (w/Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL (Inc Size Ooids) Por (w/Tr Blk "Dead" Stn) Cht Wht-Gry-Org Translu-Op Shp Vit Abd Chalk Sh Char-Gry- Maroon Soft-Fissil No Odor No Flor Sli Tr Drk Blk "Dead" Stn ? Show

Ls Wht-Gry FxIn Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor-Fair IntOOL Por Grad Med-Ig Ixln Por (w/SSG & Tr Blk "Dead" Stn) Cht Gry (w/Lt Brn Inclus) Translu-Op Shp Vit Abd Chalk Sh Char-Gry-Aqua Soft-Fissil No Odor No Flor Sli Tr Drk Blk "Dead" Stn SSG

Ls Wht-Gry FxIn Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Cht Wht-Peach Translu-Op Shp Vit Chalk Sh Char-Gry- Aqua Soft-Fissil No Odor No Flor No Stn NS

30" CFS @ 5270' Ls Wht-Gry FxIn (w/Pyr Inclu) Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Cht Wht Op Shp Vit Chalk Sh Char-Gry- Aqua Soft-Fissil No Odor No Flor No Stn NS

60" CFS @ 5270' Ls Wht-Gry FxIn (w/Pyr Inclu) Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Grad Fair Ixln Por Cht Wht Op Shp Vit Chalk Sh Char-Gry- Aqua Soft-Fissil No Odor No Flor No Stn NS

75" CFS @ 5270' Ls Wht-Gry FxIn Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Grad Fair Ixln Por Cht Wht- Peach Translu Shp Vit Chalk Sh Char-Gry-Aqua-Blk Carb Soft-Fissil No Odor No Flor No Stn NS

Ls Wht FxIn Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Grad Fair Ixln Por Chalk Abd Sh Char-Gry-Aqua-Maroon Soft-Fissil No Odor No Flor No Stn NS

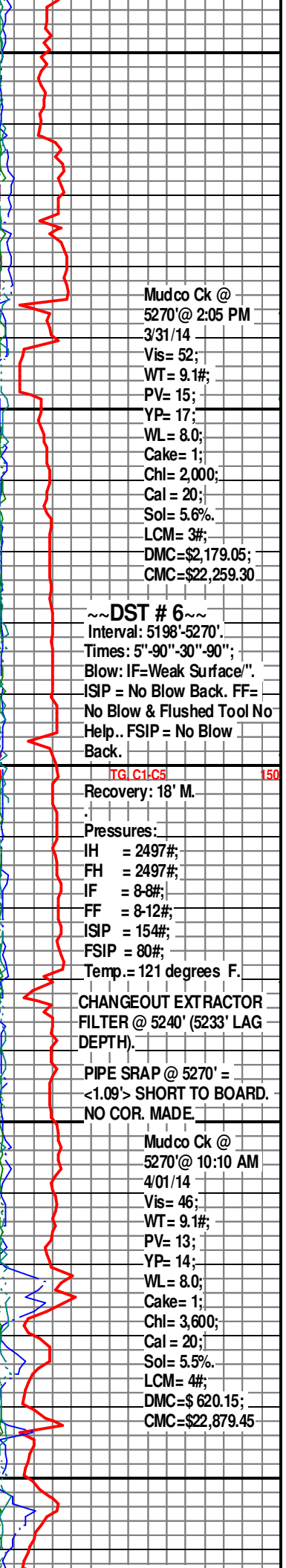
Ls Wht FxIn Fair Igran (w/Small-Med OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Grad Fair Ixln Por Chalk Abd Sh Char-Gry-Aqua-Maroon-Blk Carb Soft-Fissil No Odor No Flor No Stn NS

**MISSISSIPPIAN "ST. LOUIS C" 5296' (-2485)**

Ls Wht- Gry Microxln Micritic Cht Wht-Gry Op Shp Vit Abd Sh Char-Fissil No Odor No Flor No Stn NS

Ls Wht- Gry Microxln Micritic Cht Wht-Gry Translu-Op Shp Vit Abd Sh Char-Aqua-Maroon-Blk Carb Fissil No Odor No Flor No Stn NS

Ls Wht- Gry Microxln Micritic Cht Wht-Gry Translu-Op Shp Vit Abd Sh



Mudco Ck @  
5270' @ 2:05 PM  
3/31/14  
Vis= 52;  
WT= 9.1#;  
PV= 15;  
YP= 17;  
WL= 8.0;  
Cake= 1;  
Chl= 2,000;  
Cal= 20;  
Sol= 5.6%  
LCM= 3#;  
DMC=\$2,179.05;  
CMC=\$22,259.30

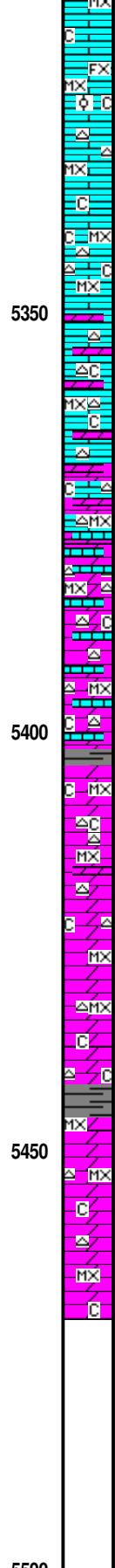
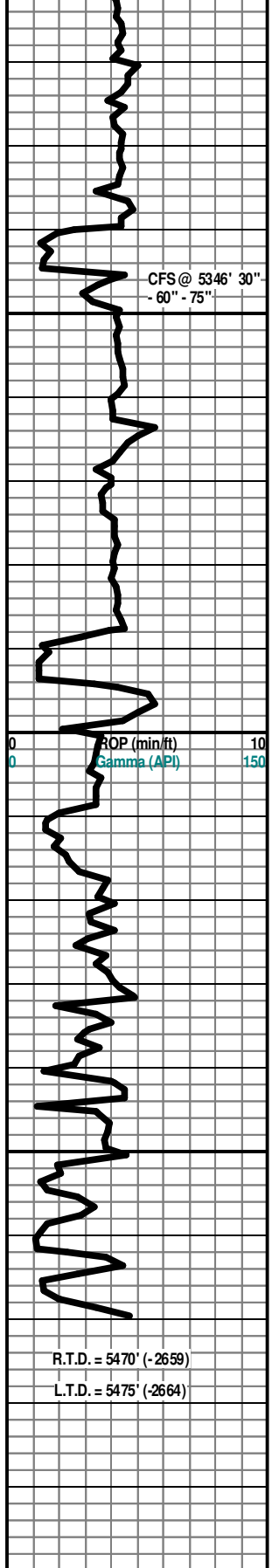
~DST # 6~  
Interval: 5198'-5270'.  
Times: 5"-90"-30"-90";  
Blow: IF=Weak Surface".  
ISIP = No Blow Back. FF=  
No Blow & Flushed Tool No  
Help.. FSIP = No Blow  
Back.

Recovery: 18' M.  
Pressures:  
IH = 2497#;  
FH = 2497#;  
IF = 8-8#;  
FF = 8-12#;  
ISIP = 154#;  
FSIP = 80#;  
Temp.= 121 degrees F.

CHANGEOUT EXTRACTOR  
FILTER @ 5240' (5233' LAG  
DEPTH).

PIPE SRAP @ 5270' =  
<1.09> SHORT TO BOARD.  
NO COR. MADE

Mudco Ck @  
5270' @ 10:10 AM  
4/01/14  
Vis= 46;  
WT= 9.1#;  
PV= 13;  
YP= 14;  
WL= 8.0;  
Cake= 1;  
Chl= 3,600;  
Cal= 20;  
Sol= 5.5%  
LCM= 4#;  
DMC=\$ 620.15;  
CMC=\$22,879.45



Char-Aqua-Maroon-Blk Carb Fissil No Odor No Flor No Stn NS

Ls Wht-Gry Microxln-Fxl n Poor-Fair Igran (w/Small OOL in pl) Por "Sandy Gran Por" Poor IntOOL Por Grad Dns Micrite Poor Ixn Por Cht Wht-Gry Op Shp Chalk Sh Char-Gry-Aqua-Maroon-Blk Carb Soft-Fissil No Odor No Flor No Stn NS

30" CFS @ 5346' Ls Wht- Gry Microxln Micritic Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor No Stn NS

60" CFS @ 5346' Ls Wht- Gry Microxln Micritic Grad Tr Poor OOL Por (w/Small OOids in pl) (3 Pcs "Dead" Drk Blk Stn) Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor ? Sli Stn ? SG

75" CFS @ 5346' Ls Wht- Gry Microxln Micritic Grad Tr Poor OOL Por (w/Small OOids in pl) (3 Pcs "Dead" Drk Blk Stn) Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor ? Sli Stn ? SG

Ls/Dolo Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Ls/Dolo Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Ls/Dolo Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo/Ls Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo/Ls Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

**MISSISSIPPIAN "SALEM" 5404' (-2593)**

Dolo Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

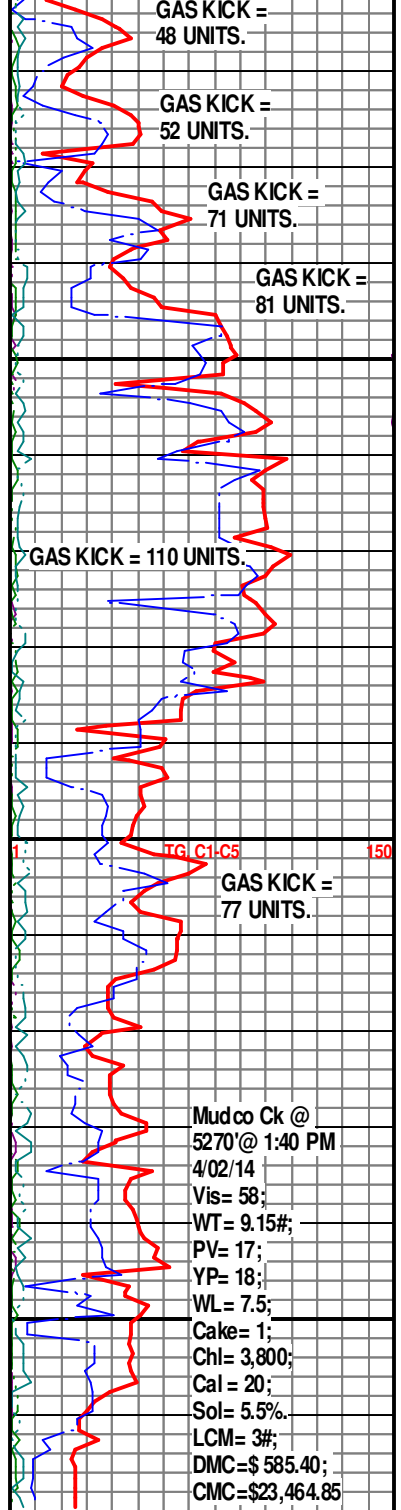
Dolo Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo Ls Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo/ Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

30" CFS @ 5470' Dolo Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

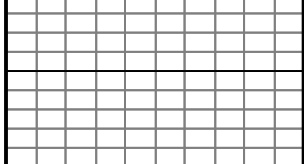
60" CFS @ 5470' Dolo Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS



R.T.D. = 5470' (-2659)  
L.T.D. = 5475' (-2664)

Electric Logs Run : By Pioneer (LogTech) Logging:  
Dual Induction; Compensated Density-Neutron; Sonic;  
Microresistivity & Cased Hole Gamma Ray-Nutron Logs.

Geologist left Location @ : P.M. on 4-02-2014



5550

