



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1194165  
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
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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: \_\_\_\_\_

1194165

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  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: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
--	---

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

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	Samuel Gary Jr. & Associates, Inc.
Well Name	RICE ESTATE ET AL 1-10
Doc ID	1194165

All Electric Logs Run

INDUCTION
MICRO
POROSITY
SONIC
SPECTRAL





**QUALITY OILWELL CEMENTING, INC.**  
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
 Phone: 785-324-1041 fax: 785-483-1087  
 Email: cementing@ruraltel.net

Date: 11/23/2013  
 Invoice # 7571

P.O.#:

Due Date: 12/23/2013

Division: Russell

# Invoice

**Contact:**

Samuel Gary Jr & Associates Inc

**Address/Job Location:**

Samuel Gary Jr & Associates Inc  
 1815 11th Street  
 Great Bend, KS 67530

RECEIVED

DEC 06 2013

SAMUEL GARY JR.  
& ASSOCIATES, INC.

**Reference:**

STITES 1-7

**Description of Work:**

SURFACE JOB

DRLG  COMP  W/O  LOE  GC

Account	8200.137
Well/Prospect	
Deck	
AFE	
Approval	<i>[Signature]</i>
Description	

**Services / Items Included:**

	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 963.85	No				
Common-Class A	250	\$ 3,958.33	Yes				
Calcium Chloride	13	\$ 763.78	Yes				
Bulk Truck Matl-Material Service Charge	270	\$ 570.00	No				
Pump Truck Mileage-Job to Nearest Camp	42	\$ 442.45	No				
8 5/8" Basket	1	\$ 333.56	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	42	\$ 258.91	No				
8 5/8" Centralizer	2	\$ 135.11	Yes				
Premium Gel (Bentonite)	7	\$ 120.29	Yes				
8 5/8" Top Rubber Plug	1	\$ 111.89	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 7,658.16  
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (1,148.72)

SubTotal for Taxable Items:	\$ 4,609.52
SubTotal for Non-Taxable Items:	\$ 1,899.92
<b>Total:</b>	<b>\$ 6,509.44</b>
Tax:	\$ 341.10

7.40% Graham County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 6,850.54**  
**Applied Payments:**  
**Balance Due: \$ 6,850.54**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7571

Date	11-23-13	Sec.	7	Twp.	10	Range	22	County	Graham	State	Ks	On Location		Finish	23:00
Lease	Stites							Location	Ogallah, Ks - N to C.L., 2 W to Rd 310						
Well No.	1-7		Owner	SN to FRd, 5/5											
Contractor	Discovery 4		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.												
Type Job	Surface		Charge To	Sam Gary Jr. + Associates											
Hole Size	12 1/4"		T.D.	433'											
Csg.	8 5/8"		Depth	433'											
Tbg. Size			Depth												
Tool			Depth												
Cement Left in Csg.	40'		Shoe Joint	40'		Cement Amount Ordered 250 5x Common 3% CL 2%									
Meas Line			Displace	25 BLS		Gel									
<b>EQUIPMENT</b>						Common 250									
Pumptrk	16	No.	Cementer	Billy		Poz. Mix									
			Helper												
Bulktrk	9	No.	Driver	Heath		Gel. 7									
			Driver												
Bulktrk	P.U.	No.	Driver	Rick		Calcium 13									
			Driver												
<b>JOB SERVICES &amp; REMARKS</b>						Hulls									
Remarks:	Cement did Circulate.					Salt									
Rat Hole						Flowseal									
Mouse Hole						Kol-Seal									
Centralizers						Mud CLR 48									
Baskets						CFL-117 or CD110 CAF 38									
D/V or Port Collar						Sand									
						Handling 270									
						Mileage									
<b>FLOAT EQUIPMENT</b>						Guide Shoe									
						Centralizer 2									
						Baskets 1									
						AFU Inserts									
						Float Shoe									
						Latch Down									
						1 Rubber plug									
						Pumptrk Charge <del>for</del> Surface Job									
						Mileage 42									
<b>Signature</b>						Tax									
<i>James Burwood</i>						Discount									
<input checked="" type="checkbox"/>						Total Charge									



**QUALITY OILWELL CEMENTING, INC.**  
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
 Phone:785-324-1041 fax:785-483-1087  
 Email: cementing@ruraltel.net

Date: 11/30/2013  
 Invoice # 7654  
 P.O.#:  
 Due Date: 12/30/2013  
 Division: Russell

# Invoice

**Contact:**  
 Samuel Gary Jr & Associates Inc  
**Address/Job Location:**  
 Samuel Gary Jr & Associates Inc  
 1815 11th Street  
 Great Bend, KS 67530

**RECEIVED**

DEC 09 2013

**SAMUEL GARY JR.  
 & ASSOCIATES, INC.**

**Reference:**  
 RICE ESTATES ET AL 1-10

**Description of Work:**  
 PLUG JOB

DPLG  COMP  W/O  LOE  GG

Account	8200 145
Well/Prospect	
Deck	
AFE	
Approval	<i>[Signature]</i>
Description	

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	Yes				
Common-Class A	162	\$ 2,715.88	Yes				
POZ Mix-Standard	108	\$ 760.45	Yes				
Bulk Truck Matl-Material Service Charge	280	\$ 625.88	Yes				
Pump Truck Mileage-Job to Nearest Camp	42	\$ 468.47	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	42	\$ 274.14	Yes				
Premium Gel (Bentonite)	10	\$ 181.95	Yes				
Flo Seal	67	\$ 149.76	Yes				
Dry Hole Plug	1	\$ 62.59	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 6,259.67  
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (938.95)

SubTotal for Taxable Items: \$ 5,320.72  
 SubTotal for Non-Taxable Items: \$ -

7.40% Graham County Sales Tax

Total: \$ 5,320.72  
 Tax: \$ 393.73

**Thank You For Your Business!**

**Amount Due: \$ 5,714.45**  
**Applied Payments:**  
**Balance Due: \$ 5,714.45**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7654

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-30-13	10	10	22	Graham	KS		6:15 PM
Lease				Location			
Rice Estate E+AL				Ogallah N to CL, 2W, to 310 Rd, 5N to FRd 1/2 E			
Well No. 1-10				Owner			
Contractor Discovery #4				To Quality Oilwell Cementing, Inc.			
Type Job Plug				You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size				T.D.		Charge To Sam Gary Jr.	
Csg.				Depth		Street	
Tbg. Size				Depth		City State	
Tool				Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.				Shoe Joint		Cement Amount Ordered 270sx 60/40 4% gel 1/4 Flow	
Meas Line				Displace			
<b>EQUIPMENT</b>				Common 162			
Pumptrk 5	No.	Cementer		Poz. Mix 108			
		Helper	Lonniew	Gel. 10			
Bulktrk 13	No.	Driver		Calcium			
		Driver	Doug				
Bulktrk P4	No.	Driver		Hulls			
		Driver	Travis	Salt			
<b>JOB SERVICES &amp; REMARKS</b>				Flowseal 67#			
Remarks:				Kol-Seal			
Rat Hole 30sx				Mud CLR 48			
Mouse Hole 15sx				CFL-117 or CD110 CAF 38			
Centralizers				Sand			
Baskets				Handling 280			
D/V or Port Collar				Mileage			
50sx at 3983				<b>FLOAT EQUIPMENT</b>			
25sx at 1860				Guide Shoe			
100sx at 995				Centralizer			
40sx at 485				Baskets			
10sx at 40 with plug				AFU Inserts			
				Float Shoe			
				Latch Down			
				1 wood plug			
				Pumptrk Charge plug			
				Mileage 42			
				Tax			
				Discount			
				Total Charge			
Signature Mike Becker							





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Sam Gary Jr. & Associates

**10-10-22, Graham, KS**

1515 Wynkoop STE 700  
Denver CO 80202

**Rice Estate #1-10**

Job Ticket: 55480

**DST#: 1**

ATTN: Dan Pritchard

Test Start: 2013.11.28 @ 16:56:00

## GENERAL INFORMATION:

Formation: **KC**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:25:45  
 Time Test Ended: 01:52:00  
 Interval: **3742.00 ft (KB) To 3778.00 ft (KB) (TVD)**  
 Total Depth: 3778.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brett Dickinson  
 Unit No: 59  
 Reference Elevations: 2328.00 ft (KB)  
 2320.00 ft (CF)  
 KB to GR/CF: 8.00 ft

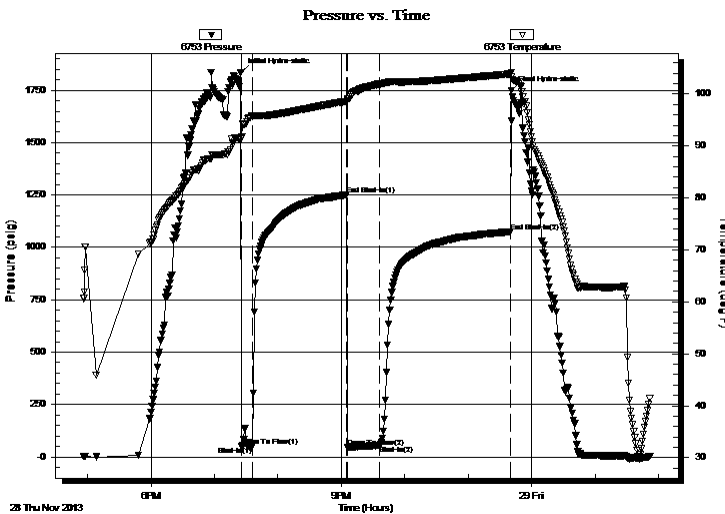
## Serial #: 6753

Inside

Press @ Run Depth: 55.07 psig @ 3743.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.11.28 End Date: 2013.11.29 Last Calib.: 2013.11.29  
 Start Time: 16:56:05 End Time: 01:52:00 Time On Btm: 2013.11.28 @ 19:25:00  
 Time Off Btm: 2013.11.28 @ 23:41:00

TEST COMMENT: 10min IF-3in blow  
 90min ISI-No blow  
 30min FF-2 1/2in blow  
 120min FSI-No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1834.82	91.63	Initial Hydro-static
1	51.55	91.68	Open To Flow (1)
11	49.83	95.73	Shut-In(1)
100	1250.74	98.58	End Shut-In(1)
101	46.49	98.74	Open To Flow (2)
132	55.07	101.94	Shut-In(2)
255	1074.07	103.87	End Shut-In(2)
256	1749.37	103.26	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
5.00	GO 5%G 95%O	0.07
65.00	VSOMCW 2%O 20%M 78%W	0.91

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Sam Gary Jr. & Associates

**10-10-22, Graham, KS**

1515 Wynkoop STE 700  
Denver CO 80202

**Rice Estate #1-10**

Job Ticket: 55480

**DST#: 1**

ATTN: Dan Pritchard

Test Start: 2013.11.28 @ 16:56:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

65000 ppm

Viscosity: 71.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	GO 5%G 95%O	0.070
65.00	VSOMCW 2%O 20%M 78%W	0.912

Total Length: 70.00 ft      Total Volume: 0.982 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

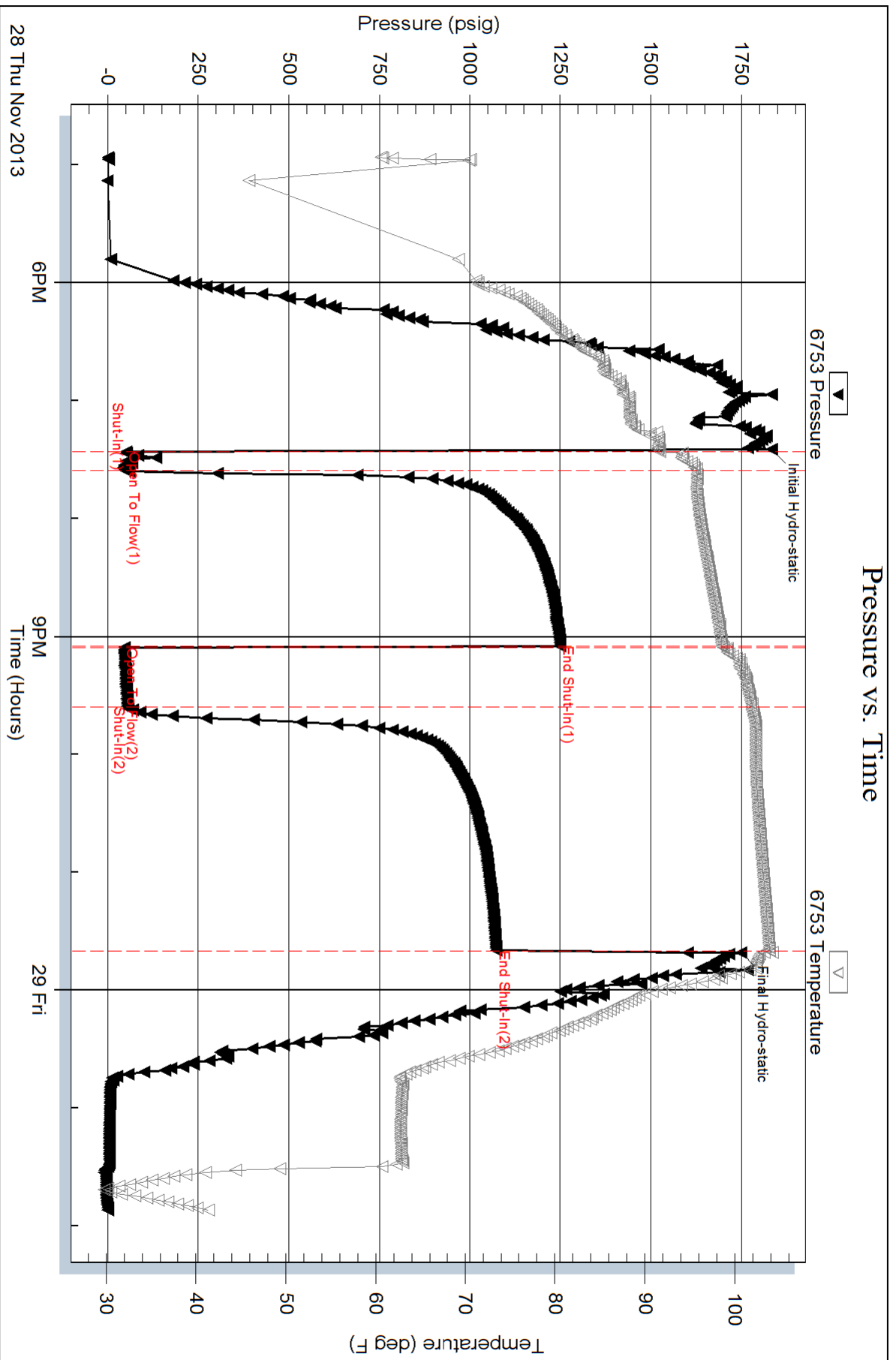
Serial #:

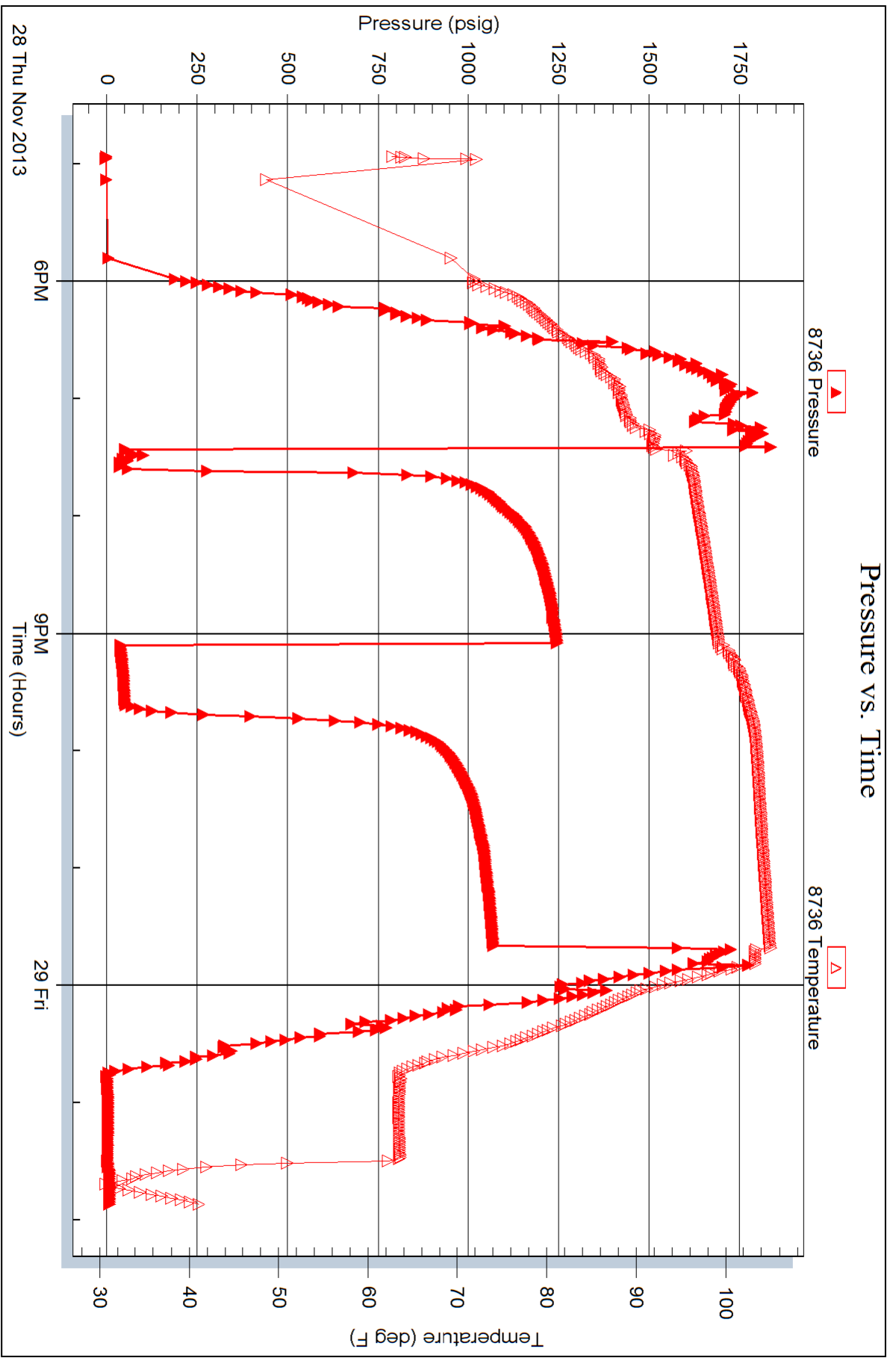
Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data 500mlM 1400ml W 100ml O 75 PSI RW .25@35

# Pressure vs. Time





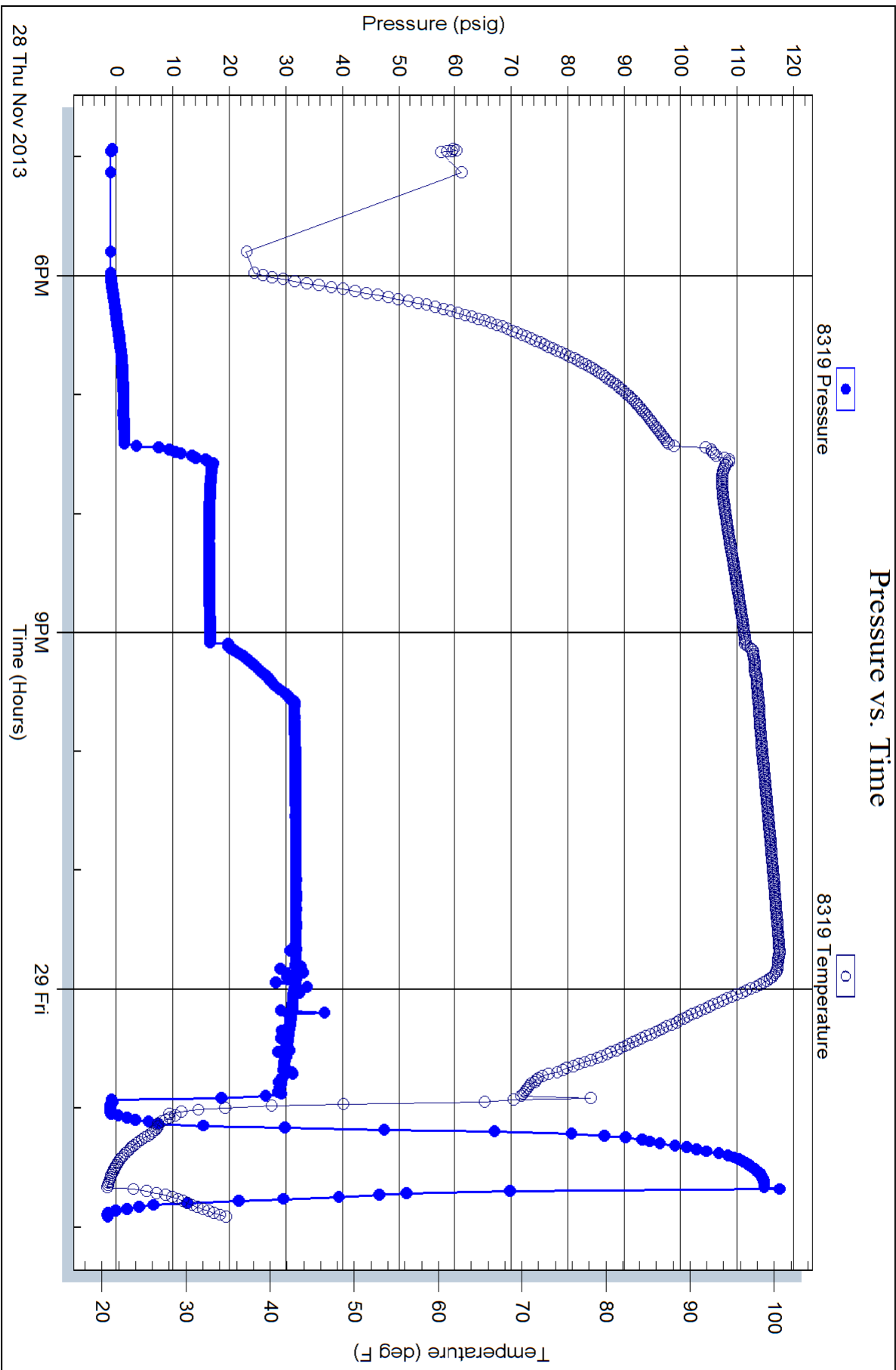
Serial #: 8319

Fluid

Sam Gary Jr. & Associates

Rice Estate #1-10

DST Test Number: 1





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

Well Name: Rice Estate et al 1-10  
 Location: Sec. 10-10S-22W Graham County, Kansas  
 License Number: 15-065-23991-0000  
 Spud Date: Nov. 24, 2013  
 Surface Coordinates: 180 FNL/ 2500 FWL  
 Region: WILDCAT  
 Drilling Completed: Nov. 10, 2013

Bottom Hole Coordinates:  
 Ground Elevation (ft): 2320' K.B. Elevation (ft): 2328'  
 Logged Interval (ft): 3300' To: 4110' Total Depth (ft): 4110'  
 Formation:  
 Type of Drilling Fluid:

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

### OPERATOR

Company: Samuel Gary Jr. & Assoc.  
 Address: 1515 Wynkoop, Ste. # 700  
 Denver, Colo. 80202  
 Geo: Dan Pritchard

### GEOLOGIST

Name: Aaron Suelter  
 Company: Earth Tech OGL, Inc.  
 Address: PO Box 683  
 Hooker, Okla . 73945  
 Off. 888-543-8378 Cell: 620-600-0777

### DST's Report

DST#1 3742'-3778' 10 90 30 120  
 IF- 3" BLOW/ ISI- NO BLOW/ FF- 2 1/2" BLOW/ FSI- NO BLOW  
 IH- 1835, FH- 1749/ IF- 52 TO 46/ FF- 50 TO 55/ ISI- 1251, FSI- 1074  
 RECOVERY- 5' GO- 5% GAS, 95% OIL/ 65' VSOMCW- 2% OIL, 78% WATER/ 20% MUD  
 SAMPLER- 100 ML OIL, 500 ML MUD, 1400 ML WATER, 2000 ML TOTAL

### ROCK TYPES

Anhy	Gyp	Shgy	Sandylms
Bent	Igne	Sltst	Shale
Brec	Lmst	Ss	Sltstn
Cht	Meta	Till	Shlysits
Clyst	Mrlst	Carb sh	Sitysh
Coal	Salt	Dol	Lms
Congl	Shale	Dtd	
Dol	Shcol	Gry sh	

### ACCESSORIES

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



OTHER SYMBOLS

POROSITY TYPE

- E Earthy
- B Fenest
- F Fracture
- X Inter
- A Moldic
- O Organic
- P Pinpoint
- V Vuggy

SORTING

- W Well
- M Moderate
- P Poor

ROUNDING

- R Rounded
- S Subrnd
- a Subang

- A Angular

OIL SHOWS

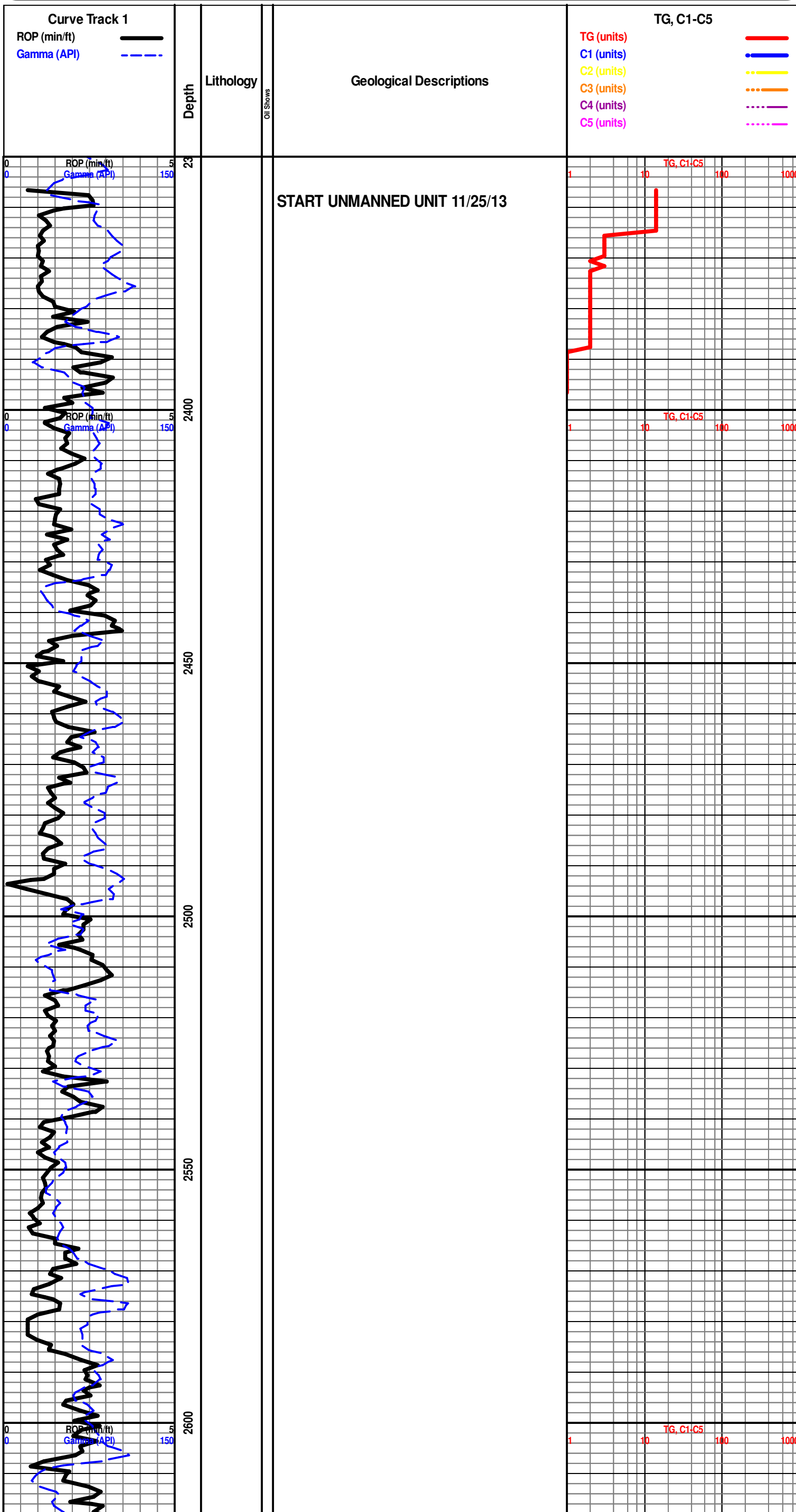
- E Even
- S Spotted
- Q Ques
- D Dead
- G Gas show

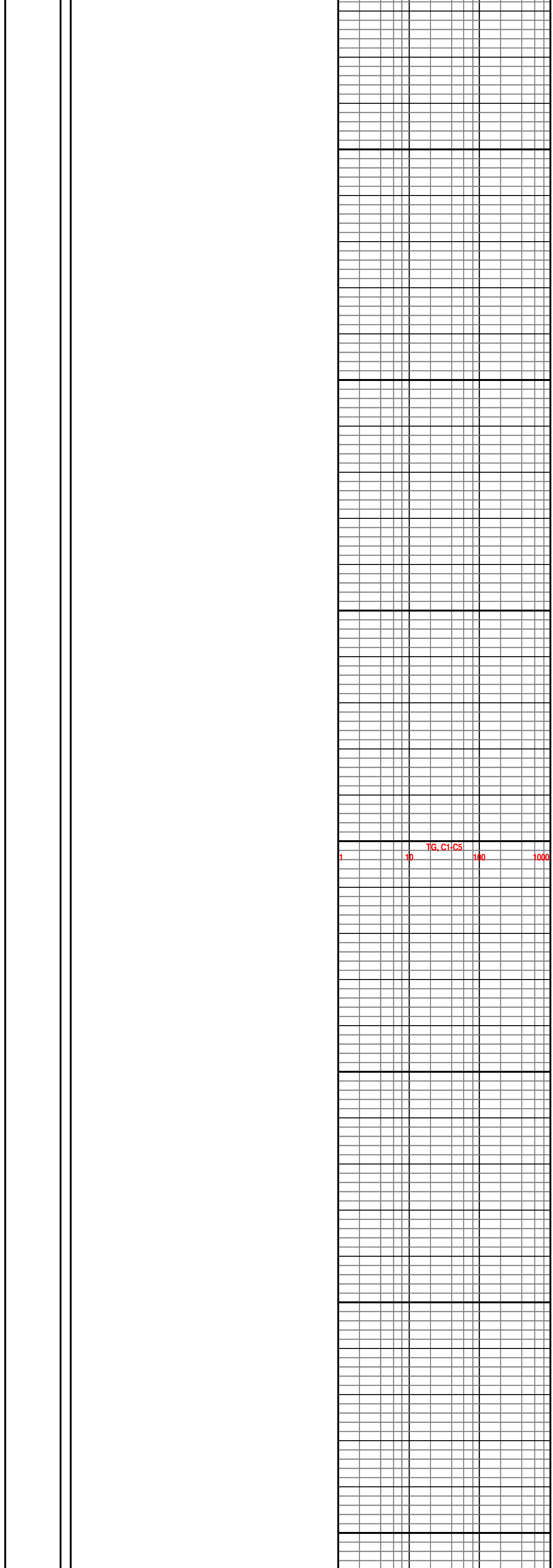
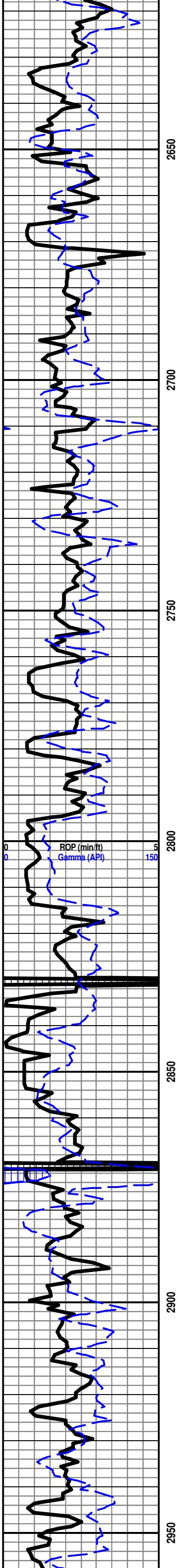
INTERVALS

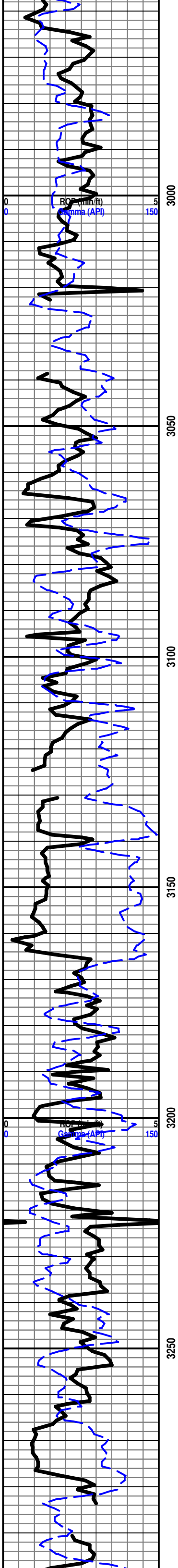
- C Core
- Dst Dst
- Dst Dst

EVENTS

- Rft Rft
- S Sidewall







3000

3050

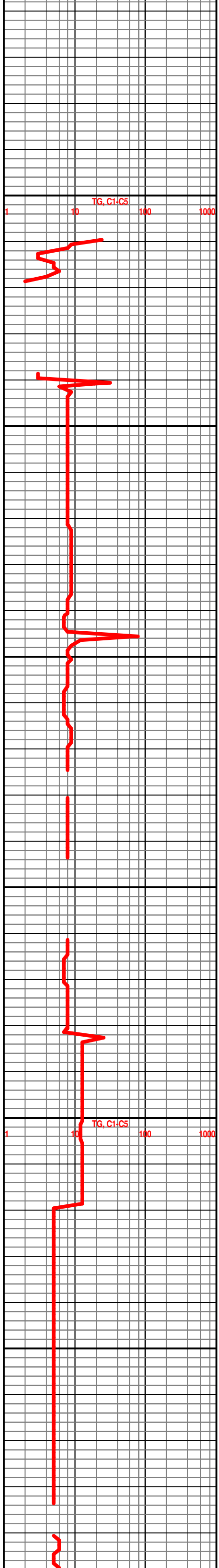
3100

3150

3200

3250

ELMONT 3165' -837'



TG, C1-C5

10

100

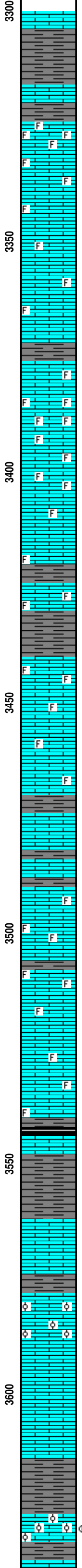
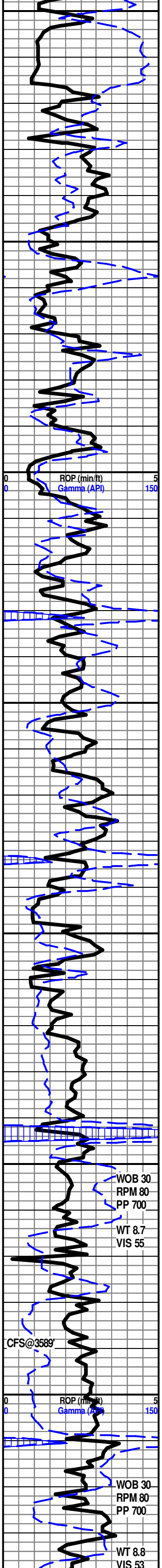
1000

TG, C1-C5

10

100

1000



SH- LT GY TO GY, FRM BLKY TO SFT GMMY, SMTH TXT

**TOPEKA 3324' -996'**

LS- CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, RE-XLN IP, ABDT IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- GY LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, SCAT IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, SCAT IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- GY CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, RE-XLN IP, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT TO CRM, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, SLI TR IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- LT TN TO TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, RE-XLN MTRX IP, ABDT IMBD FOSS FRG THRU, NO VIS FLO, FR INTR FOSS POR IN 3%, NO VIS SHOW

LS- OFF WHT CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, ABDT IMBD FOSS FRG THRU, SFT WHT CHLK IN TRAY, NO VIS FLO, PR INTR FOSS POR IN 3%, NO VIS SHOW

LS- CRM TO LT TN, HD DNS TO BRIT IP, F XLN SUCRO MTRX, IMBD FOSS FRG THRU, SLI TR IMBD CALC XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- LT GY TO DK GY, FRM BLKY, SMTH TO SLTY TXT

SH- LT GY TO DK GY, FRM BLKY, SMTH TO SLTY TXT

LS- CRM TO LT TN, HD DNS TO RBIT, MD XLN RE-XLN MTRX, ABDT IMBD FOSS FRG THRU, TR IMBD CALC XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT TO CRM, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, SLI TR IMBD FOSS FRG IP, ABDT SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- LT GY TO GY, FRM BLKY, SMTH TXT

LS- OFF WHT CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, RE-XLN IP, TR SCAT IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS - LT TN TO DK TN, HD DNS TO BRIT IP, F TO MD XLN RE-XLN MTRX, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- LT TN TO TN, HD DNS TO BRIT IP, F TO MD XLN RE-XLN MTRX, S-SUCRO IP, S-CHLKY IP, SCAT IMBD FOSS FRG IP, SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, SLI TR IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, RE-XLN IP, S-CHLKY IP, SCAT IMBD FOSS FRG IP, SLI TR IMBD CALC XLS IP, SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

**HEEBNER 3541' -1213'**

SH- BLCK, SFT, CARB

SH- LT GY TO DK GY, FRM BLKY, SMTH TXT

LS- OFF WHT TO CRM, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

**LANSING 3579' -1251'**

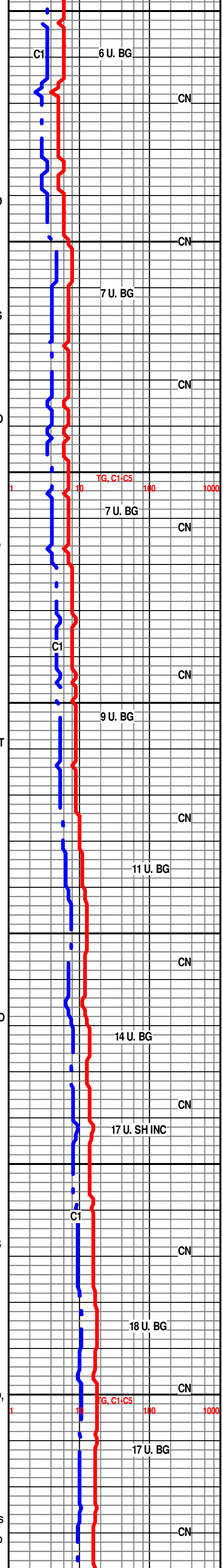
LS- OFF WHT TO CRM, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL THRU, NO VIS FLO, PR INTR OOL POR IN 3%, NO VIS CUT OR SHOW

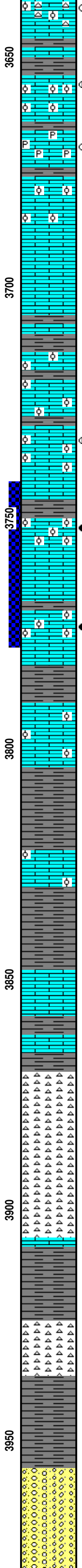
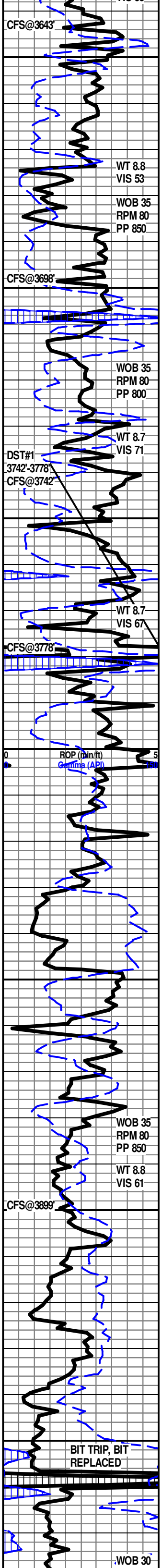
LS- CRM TO LT TN, HD DNS TO BRIT IP, F TO CRYPTO XLN, S-SUCRO IP, SLI TR IMBD CALC XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- GRN GY TO DK GY, FRM BLKY, SMTH TXT

**LANSING "C" 3625' -1297'**

3628'-3630' LS- CRM TO LT TN W/ TN OIL STN IN 60%, DOS IN 10%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, IMBD OOL THRU, BRT YEL GLD FLO IN 60%, FR TO GD INTR OOL POR IN 4%, PR FLSH CUT IN 40%, PR TO FR SLW STRM IN 50%, NO LCH ON DISH



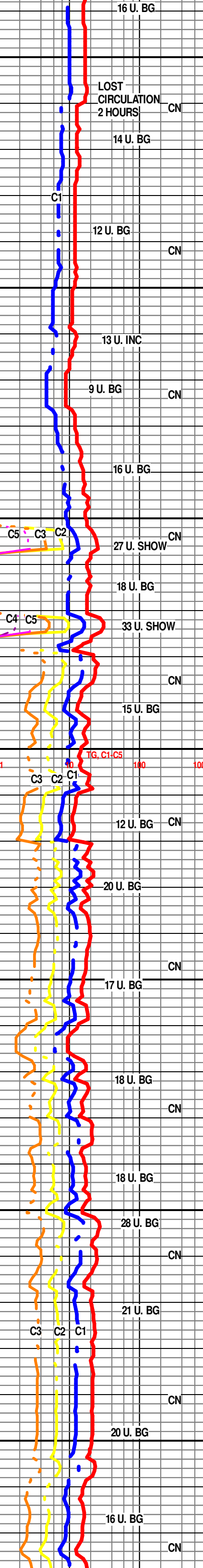


**LANSING "F" 3653' -1325'**  
 3655'-3656' LS-OFF WHT TO CRM W/ TN OIL STN IN 40%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLK, ABDT IMBD OOL THRU, DUL YEL GLD FLO IN 40%, PR TO FR INTR OOL POR IN 4%, NO FLSH CUT, POR TO FR SLW STRM, NO LCH ON DISH  
 3668'-3669' LS- OFF WHT TO CRM TN OIL STN IN 15%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, IMBD CALC XLS IP, ABDT PYR IN TRAY, BRT YEL GLD FLO IN 15%, PR INTR XLN POR IN 2%, NO FLSH CUT, WK SLW STRM IN 10%, NO LCH ON DISH  
 LS- OFF WHT TO CRM, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, RE-XLN IP, IMBD OOL IP, SLI TR IMBD CALC XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW  
 LS- CRM TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, SCAT IMBD OOL THRU, TR IMBD CALC XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

**LANSING "H" 3711' 1383'**  
 LS- CRM TO LT TN, HD DNS TO BRIT, F TO MD XLN SUCRO MTRX, SCAT IMBD OOL IP, NO VIS FLO, NO VIS POR, NOV IS SHOW  
 3733'-3735' LS- CRM LT TN TO TN W/ TN OIL STN IN 60%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, SLI TR IMBD OOL IP, SLI TR IMBD CALC XLS IP, DUL YEL GLD FLO IN 70%, PR TO FR INTR OOL POR IN 2%, FR VUG POR IN 3%, FR FLSH CUT IN 70%, FR TO GD SLW STRM IN 70%, TN LCH ON DISH, WK OIL ODOR  
 3751'-3753' LS- LT TN TO TN W/ TN OIL STN IN 70%, LOS IN 5%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL THRU, DUL YEL GLD FLO IN 75%, FR TO GD INTR OOL POR IN 4%, WK FLSH CUT IN 70%, FR SLW STRM IN 75%, TN LCH ON DISH, FR OIL ODOR  
 3773'-3774' LS- LT TN TO TN W/ TN OIL STN IN 80%, LOS IN 5%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL THRU, DUL YEL GLD FLO IN 85%, PR TO FR INTR OOL POR IN 4%, MICRO VUG POR IN 2%, FR FLSH CUT IN 80%, FR TO GD SLW STRM IN 80%, TN LCH ON DISH, GD OIL ODOR, SLI TR OIL DROPLETS IN TRAY

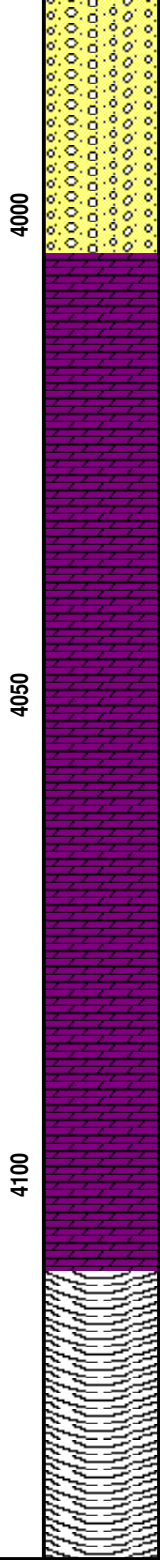
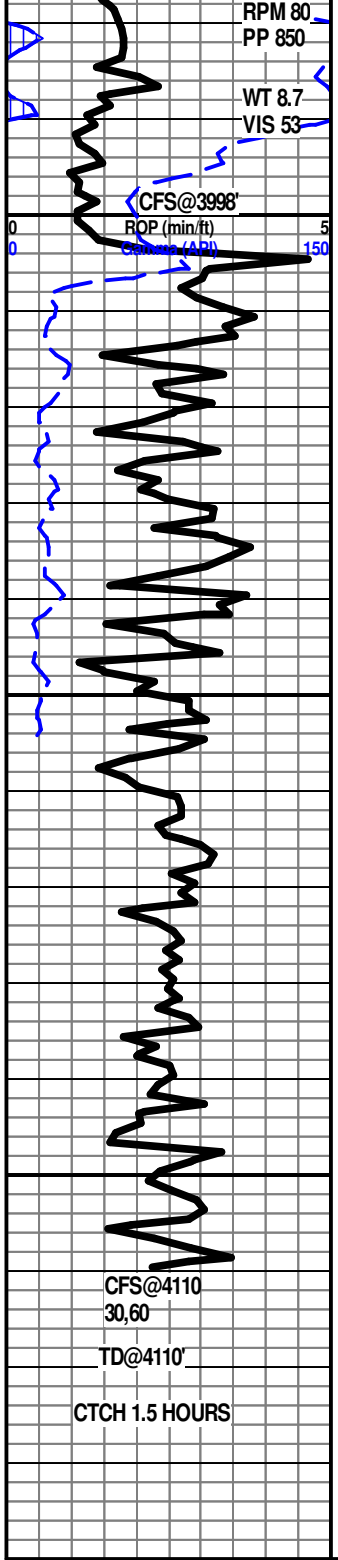
**X-SHALE 3783' -1455'**  
 SH- GRN BRWN TO GY MOTT IP, FRM BLKY, SMTH TXT  
 LS- CRM TO LT TN, HD DNS TO BRIT IP, F TO MD XLN RE-XLN MTRX, S-CHLKY IP, SCAT IMBD OOL IP, NO VIS FLO, NO VIS POR, NO VIS SHOW  
 SH- BRWN TO GY, SFT GMMY, SMTH TXT  
 LS- OFF WHT TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, SLI TR IMBD OOL IP, NO VIS FLO, NO VIS POR, NO VIS SHOW  
 SH- GRN BRWN TO RED, FRM BLKY, SMTH TO SLTY TXT  
 LS- OFF WHT TO CRM, HD DNS TO BRIT, F TO MD XLN SUCRO MTRX, RE-XLN IP, NO VIS FLO, NO VIS POR, NO VIS SHOW  
 LS- OFF WHT TO CRM, HD DNS TO BRIT, F TO MD XLN SUCRO MTRX, RE-XLN IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

**MARMATON 3871' -1543'**  
 CHRT- CRM LT TN TO ORNG, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, NO VIS FLO, TT PP POR IN 5%, NO VIS CUT OR SHOW  
 CHRT- CRM LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, NO VIS FLO, TT PP POR IN 5%, NO VIS CUT OR SHOW  
 SH- GRN BRWN ORNG TO GY, FRM BLKY, SMTH TXT  
 CHRT- OFF WHT BRWN YEL TO ORNG, HD DNS, V/F TO CRYPTO XLN, NO VIS FLO, NO VIS POR, NO VIS SHOW  
 SH- GRN BRWN TO GY, FRM BLKY TO SPLNTY, SMTH TXT  
 CONG- LS- OFF WHT TO CRM, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, SH- GRN BRWN TO GY, FRM BLKY TO SMTH TXT, SMTH TXT, CHRT- TN TO ORNG



16 U. BG  
 LOST CIRCULATION 2 HOURS CN  
 14 U. BG  
 12 U. BG CN  
 13 U. INC  
 9 U. BG CN  
 16 U. BG  
 27 U. SHOW CN  
 18 U. BG  
 33 U. SHOW  
 CN  
 15 U. BG  
 12 U. BG CN  
 20 U. BG  
 CN  
 17 U. BG  
 18 U. BG  
 CN  
 18 U. BG  
 28 U. BG CN  
 21 U. BG  
 CN  
 20 U. BG  
 16 U. BG CN





CONG- SH- GRN BRWN ORNG TO GY, FRM BLKY, SMTH TO SLTY TXT, CHRT- WHT OFF WHT TN TO ORNG

**ARBUCKLE 4004' 1676'**

DOLO- CRM LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, ABDT IMBD MD TO CRS S-ANG TO ANG DOLO GRNS THRU, NO VIS FLO, FR TO GD INTR GRN POR IN 10%, NO VIS CUT OR SHOW

DOLO- CRM LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, ABDT IMBD MD TO CRS S-ANG TO ANG DOLO GRNS THRU, NO VIS FLO, FR TO GD INTR GRN POR IN 10%, NO VIS CUT OR SHOW

DOLO- CRM LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD SM TO MD S-ANG TO S-RND DOLO GRNS THRU, NO VIS FLO, FR TO GD INTR GRN POR IN 10%, NO VIS CUT OR SHOW

DOLO- CRM LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD SM TO MD S-ANG TO S-RND DOLO GRNS, NO VIS FLO, FR TO GD INTR GRN POR IN 10%, NO VIS CUT OR SHOW

DOLO- LT TN TO DK TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD F TO SM S-RND TO RND DOLO GRNS THRU, NO VIS FLO, FR TO GD INTR GRN POR IN 10%, NO VIS CUT OR SHOW

DOLO- LT TN TO DK TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD F TO SM S-RND TO RND DOLO GRNS THRU, NO VIS FLO, FR TO GD INTR GRN POR IN 10%, NO VIS CUT OR SHOW

R.T.D. @ 2:30 AM 11/30/13

DROP SURVEY

TOFL

WEATHERFORD/LIBERAL

