



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1184272  
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: \_\_\_\_\_

1184272

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
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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> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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# ALLIED CEMENTING CO., LLC. 042261

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Medicine Lodge, KS

DATE <u>11-12-2010</u>	SEC. <u>15</u>	TWP. <u>32s</u>	RANGE <u>9W</u>	CALLED OUT <u>12:00AM</u>	ON LOCATION <u>2:00AM</u>	JOB START <u>8:30AM</u>	JOB FINISH <u>9:00AM</u>
LEASE <u>McDaniel</u>		WELL # <u>1</u>	LOCATION <u>Attica, KS 3 West</u>		COUNTY <u>Herper</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)			<u>1 north, 1/2 East, South into</u>				

CONTRACTOR Duke #10

TYPE OF JOB Surface

HOLE SIZE 14 3/4 T.D. 250

CASING SIZE 10 3/4 DEPTH 235'

TUBING SIZE 8 5/8 LT DEPTH 13'

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_

MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_

CEMENT LEFT IN CSG. 20'

PERFS. \_\_\_\_\_

DISPLACEMENT 23 bbls of fresh water

OWNER Woolsey Operating

CEMENT

AMOUNT ORDERED 240sk Class A + 3% CC + 2% Gel

COMMON <u>Class A 240sk @ 15.45</u>	<u>3708.00</u>
POZMIX _____ @ _____	
GEL <u>5 sk @ 20.80</u>	<u>104.00</u>
CHLORIDE <u>9 sk @ 58.20</u>	<u>523.80</u>
ASC _____ @ _____	
<b>WELL FILE</b>	
Regulatory Correspondence _____ @ _____	
Eng / Comp Workovers _____ @ _____	
Tests / Meters Operations _____ @ _____	
_____ @ _____	
_____ @ _____	
_____ @ _____	
_____ @ _____	
HANDLING <u>254 @ 2.40</u>	<u>609.60</u>
MILEAGE <u>254.10 / 15</u>	<u>381.00</u>
<b>TOTAL</b>	<b><u>5326.40</u></b>

EQUIPMENT

PUMP TRUCK CEMENTER Darin E

# 414-502 HELPER Ron G

BULK TRUCK

# 364 DRIVER Jason T

BULK TRUCK

# \_\_\_\_\_ DRIVER \_\_\_\_\_

REMARKS:

Pipe on bottom & break circulation  
pump 3 bbls of fresh water 9 hrs &  
mix 240sk of cement. Displace 23  
bbls, shut in, cement & circulate

SERVICE

DEPTH OF JOB 248'

PUMP TRUCK CHARGE 1018.00

EXTRA FOOTAGE \_\_\_\_\_ @ \_\_\_\_\_

MILEAGE 15 @ 7.00 105.00

MANIFOLD \_\_\_\_\_ @ \_\_\_\_\_

Swageducine \_\_\_\_\_ @ \_\_\_\_\_

**TOTAL** 1123.00

CHARGE TO: Woolsey Operating

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

\_\_\_\_\_ @ \_\_\_\_\_

none \_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

**TOTAL** \_\_\_\_\_

To Allied Cementing Co., LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES ~~6247.40~~

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS

~~5224.40~~

PRINTED NAME X MIKE THARP

SIGNATURE X Mike Tharp

Thank YOU!!!

# ALLIED CEMENTING CO., LLC. 040545

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Medicine Lodge KS

DATE <u>11 22 10</u>	SEC. <u>15</u>	TWP. <u>32s</u>	RANGE <u>09w</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>McDaniel</u>	WELL # <u>1</u>	LOCATION <u>Attica KS, 3w, 1n, 1/2E, N/5</u>		COUNTY <u>Harper</u>	STATE <u>KS</u>		
OLD OR <input checked="" type="radio"/> NEW (Circle one)							

CONTRACTOR Dulce #10

TYPE OF JOB Rotary Plug

HOLE SIZE 7 7/8 T.D. 4964

CASING SIZE 10 3/4 DEPTH 235

TUBING SIZE DEPTH

DRILL PIPE 4 1/2 DEPTH 4910

TOOL DEPTH

PRES. MAX 450 MINIMUM -

MEAS. LINE SHOE JOINT N/A

CEMENT LEFT IN CSG. -

OWNER Woolsey

CEMENT

AMOUNT ORDERED 190sx60:40:4% gel

COMMON <u>A</u>	<u>114 SX</u>	@ <u>15.45</u>	<u>1761.30</u>
POZMIX	<u>76 SX</u>	@ <u>8.00</u>	<u>608.00</u>
GEL	<u>7 SX</u>	@ <u>20.80</u>	<u>145.60</u>
CHLORIDE		@	
ASC		@	

PERFS.

DISPLACEMENT Fresh H<sub>2</sub>O & Drilling Mud

EQUIPMENT

PUMP TRUCK # 352 CEMENTER D. Felio  
HELPER R. Gilley

BULK TRUCK # 381-290 DRIVER J. Thimesch

BULK TRUCK # DRIVER

**WELL FILE**  
Regulatory Correspondence  
Workovers  
Operations  
Orig / Comp  
Tests / Meters

HANDLING 197 @ 2.40 472.80

MILEAGE 197.10/25 492.50

TOTAL 3480.20

### REMARKS:

Drill Pipe at <sup>49</sup>110', Load Hole, Pump Fresh H<sub>2</sub>O,  
Spacers, Mix 35sx60:40 cement Blend, Disp. w/  
3Bbls Fresh & 6 1/2 Bbls mud, Drill Pipe at 1350'  
Load Hole, Mix 35sx cement, Disp. w/ 3 Fresh & 13 3/4 Mud,  
Drill Pipe at 850', Load Hole, Mix 35sx60:40, Disp. w/ 3 Fresh  
& 6 1/2 mud, Drill Pipe at 300', Load Hole, Mix 35sx, Disp.  
w/ 2K water, Plug Gaskets w/ 25sx, cement Dis Case,  
Plug Rat Hole w/ 15sx, Plug Mouse hole w/ 10sx

### SERVICE

DEPTH OF JOB 4940

PUMP TRUCK CHARGE 2185.00

EXTRA FOOTAGE @

MILEAGE 25 @ 7.00 175.00

MANIFOLD N/A @

CHARGE TO: Woolsey Oper.

STREET  
CITY STATE ZIP

TOTAL 2360.00

### PLUG & FLOAT EQUIPMENT

NONE @

@

@

@

@

TOTAL

To Allied Cementing Co., LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)

TOTAL CHARGES 2360.00

PRINTED NAME MIKE THARP

DISCOUNT 270.00 IF PAID IN 30 DAYS

SIGNATURE Mike Tharp

270.00



**Woolsey Operating Company, LLC**  
Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: McDaniel #1  
Location: C SW NW NE  
License Number: 15-077-21712  
Spud Date: November 11, 2010  
Surface Coordinates: 990' FNL & 2310' FEL    Sec 15 Twp 32S-Rge 9W  
Wildcat  
Bottom Hole Coordinates: Verticle Hole  
Region: Barber Co, KS  
Drilling Completed: November 22, 2010  
Ground Elevation (ft): 1459'    K.B. Elevation (ft): 1470'  
Logged Interval (ft):                      To:                      Total Depth (ft): 4964'  
Formation: Total Depth in Arbuckle  
Type of Drilling Fluid: Chemical Displaced at 2986'  
Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

**OPERATOR**

Company: Woolsey Operating Company,LLC  
Address: 125 N. Market, Suite 1000  
Wichita, KS 67202

**GEOLOGIST**

Name: Bill Klaver  
Company: Woolsey Operating Co. LLC  
Address: 125 N. Market, Wichita Kansas, 67202

**COMMENTS**

Surface Casing: Ran 6 joints new 10 3/4" X 32.75# to 247' KB with 230 sx, 2% gel, 3% cc. Cement did circulate.  
Production Casing:

Deviation Surveys: 3/4 at 250', 1/2 at 752', 3/4 at 1254', 1/2 at 1779', 3/4 at 2229', 1/2 at 2772', 1/2 at 3276', 3/4 at 3773', 1/2 at 4580',

Pipe Strap @ 4647', strap: 4674.19', board: 4674.24. .05' short.

Duke Drilling Rig 10 Bit Record:

#1 14 3/4" HTC RR in at 0' out at 250', 250'/7 hours

#2 7 7/8" Varrel HE-29 in at 247' out at 4647', 4397'/142 hours

#3 7 7/8" Varrel HE-29 RR in at 4647'

Gas Detector: Woolsey Operating Co. Gas Trailer #2

Mud System: Mud Co. Brad Bortz, Aaron Rush, Engineers

DSTs: No formation tests were ran.

OH Logs:


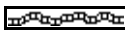
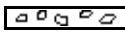
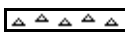


Note: Log Depths







## DSTs


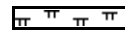
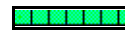



## CREWS






Joe Livingston, Tool Pusher (Semi-Retired)  
Alejandro Ordonez, Morning  
Scott Edwards, Days  
Colby Crawford, Evening  
Ron Burns, Relief

## ROCK TYPES

 Anhy  
 Bent  
 Brec  
 Cht  
 Clyst  
 Coal

 Congl  
 Sdy dolo  
 Shy dolo  
 Dol  
 Gyp  
 Sdy lmst

 Lmst  
 Mrlst  
 Salt  
 Shale  
 Sltst  
 Ss

 Black sh  
 Gry sh  
 Shale  
 Shysltst  
 Sltys

## ACCESSORIES

### MINERAL

- Anhy
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Ferrpel
- Ferr
- Glau
- Gyp
- Marl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt

- Chlorite
- Dol
- Sand
- Slty

### FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra

- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomoldic

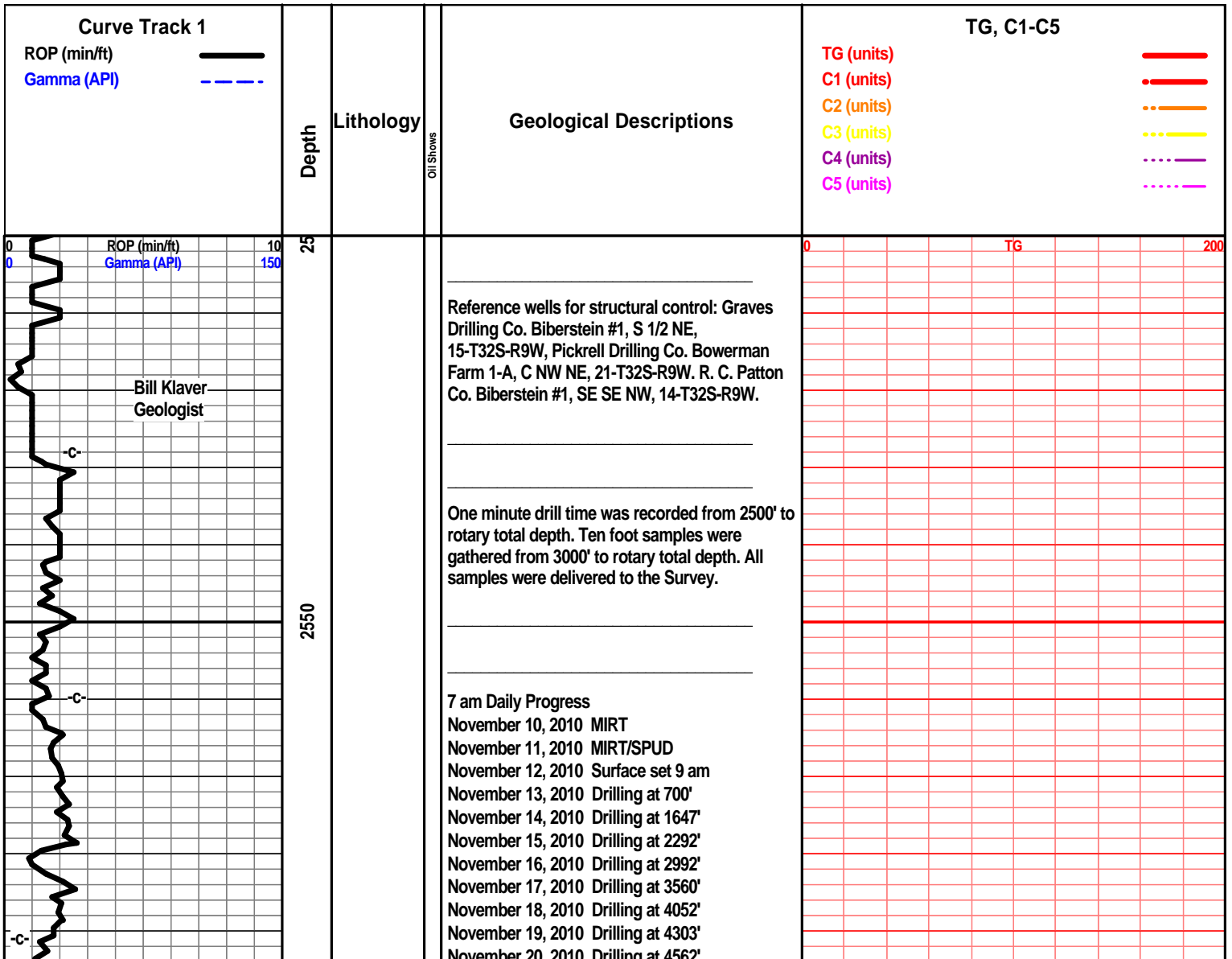
### STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Slststrg
- Ssststrg
- Carbsh
- Clystn
- Dol

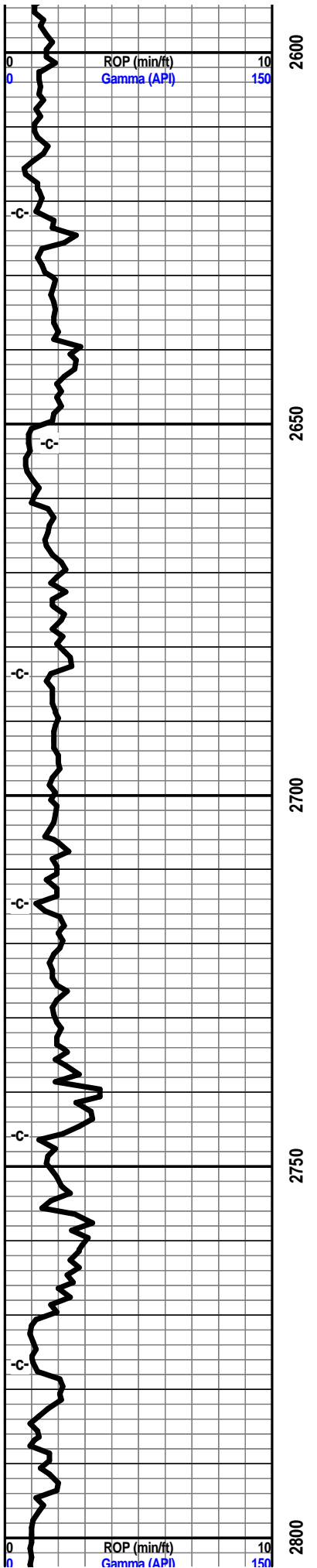
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Slststn

### TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

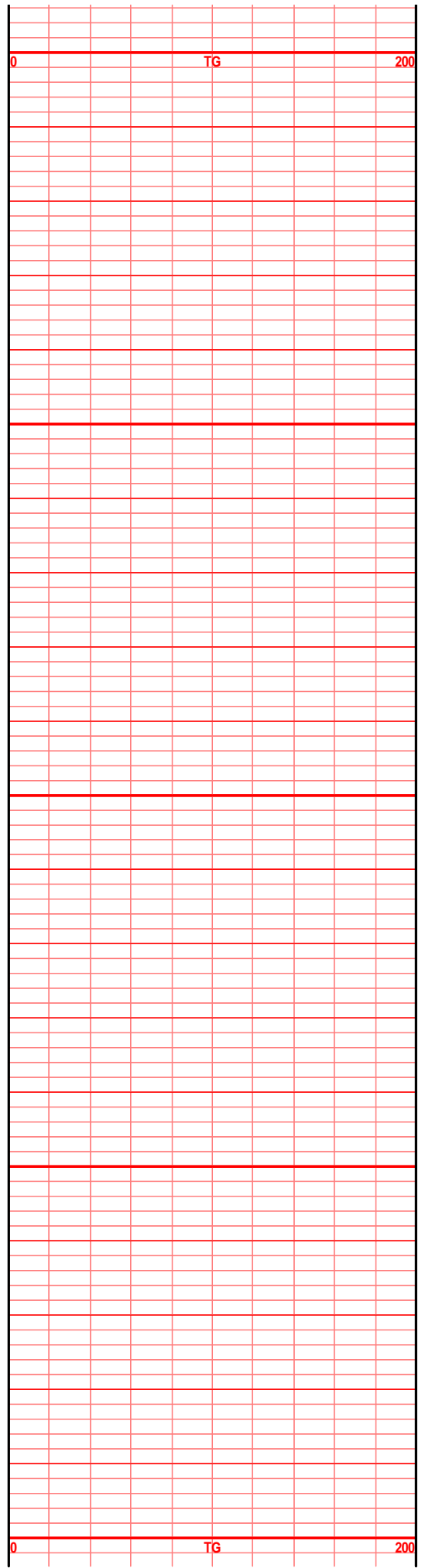


November 20, 2010 Drilling at 4902  
 November 21, 2010 Drilling at 4732'  
 November 22, 2010 Drilling at 4930'

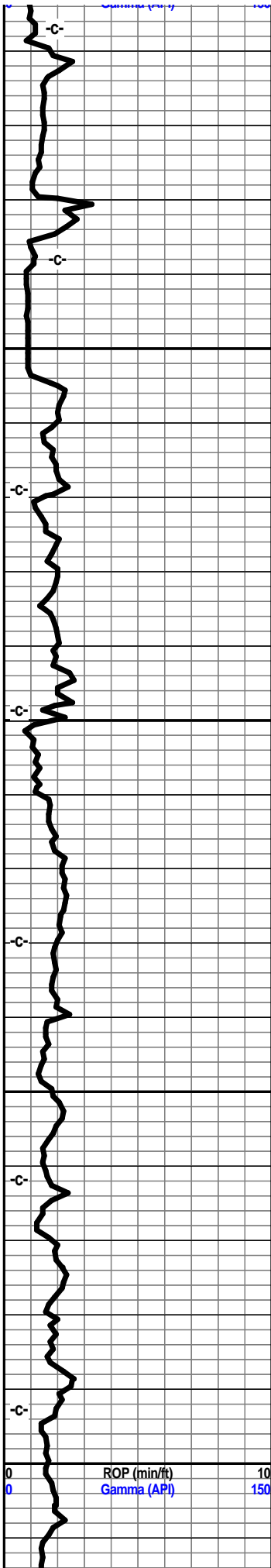


E-Log Tops:

- Chase
- Onaga
- Wabaunsee
- LeCompton
- Kanwaka
- Elgin Sand
- Heebner
- Toronto
- Douglas
- Brown Lime
- Stalnaker
- KC 'Iola'
- KC 'Dennis'
- Stark
- KC 'Swope'
- Hushpuckney
- KC 'Hertha'
- B/Kansas City
- Pawnee
- Cherokee Grp
- Mississippi
- Osage
- Compton
- Kinderhook
- Woodford
- Viola
- Simpson
- Wilcox
- McLish Shl
- McLish Sand
- Arbuckle
- LTD







2850

2900

2950

3000

ROP (min/ft) 10  
Gamma (API) 150

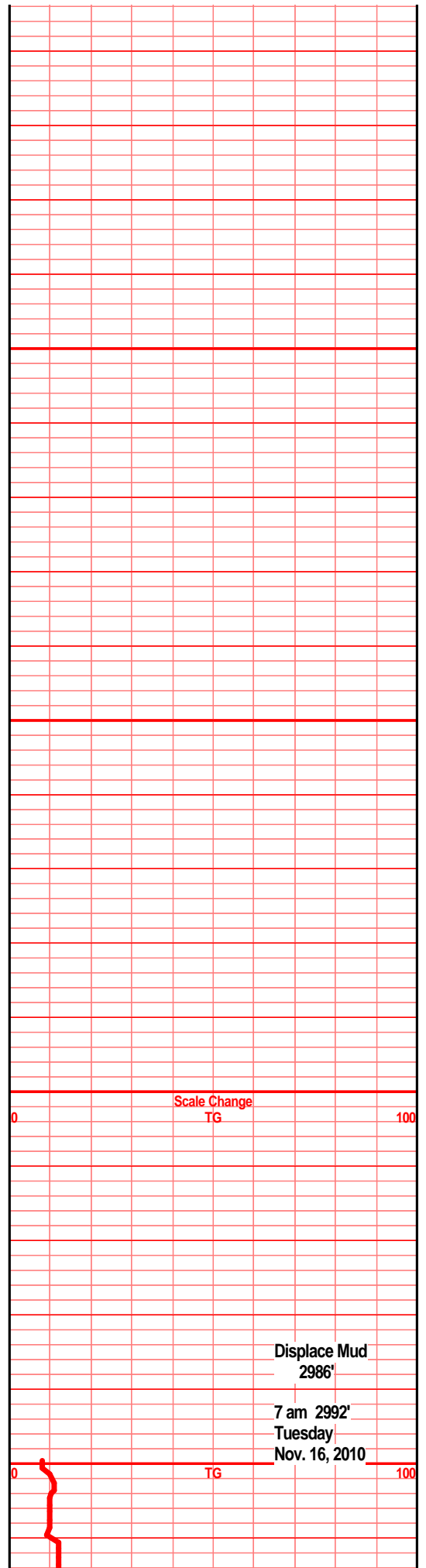


Oil/Gas Show Legend

- ⊗ Gas
- Even Stain/Saturation
- Spotted Stain/Saturation
- Questionable Oil/Gas
- ◻ Dead/Gilsonitic

shl gry med drk gry

shl gry drk gry

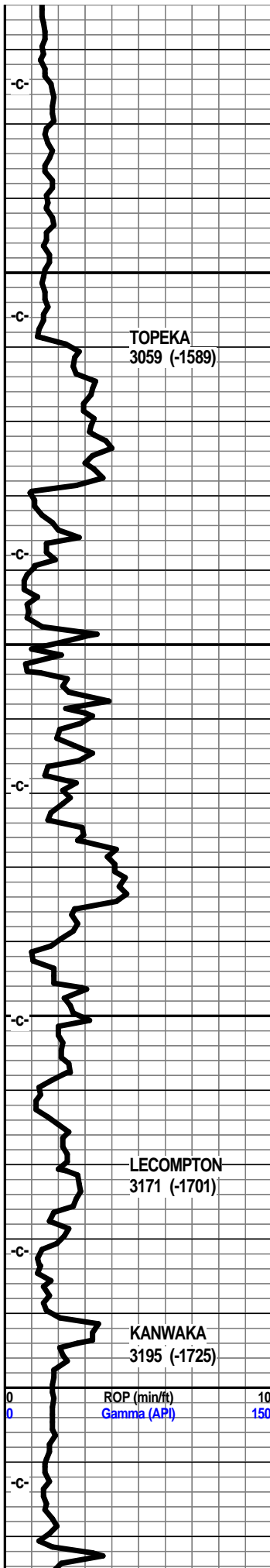


Scale Change  
TG

Displace Mud  
2986'

7 am 2992'  
Tuesday  
Nov. 16, 2010

TG



shl gry med lt gry silty gritty

shl gry med gry silty soft mddy

shl gry med gry silty gritty soft

shl gry med gry soft muddy gritty spls wsh gry

lst tan gry brn f med xln blkv ang arg, lrg foss frags calc fill

lst tan brn f xln blkv dns hrd arg tr soft sub chlky calc fill

shl gry lt gry, lst tan gry brn f vf xln gran arg blkv dns hrd calc fill tr foss frags

lst tan gry lt brn f xln blkv dns sub chlky tr foss, calc fill, shl gry brn silty calc, foss fill

shl gry drk gry calc, silty, sst wht clr clstrs, vf grns sub ang, fria, arg clay fill

shl gry, lt gry, sst wht lt gry clstrs, f vf grnd sub ang, w/srtd, sub fria to tite, gran, clay fill, min fill

shl gry drk gry, sst lt gry tan clstrs, f vf grnd, sub ang sub fria, tite, prly srtd, calc cem, min fill, clay fill

lst tan brn gry, vf xln dns, hrd, arg, calc fill tr foss frags, sndy, gritty

shl gry drk gry silty, sndy, gritty, sst gry brn f vf grnd clstrs, sub ang prly srtd, sub fria, tite w/cem calc cem

shl gry drk gry silty muddy

shl gry drk gry silty muddy

lst crm tan lt brn f sli med xln, blkv ang sub chlky, calc fill/nods, foss frags,

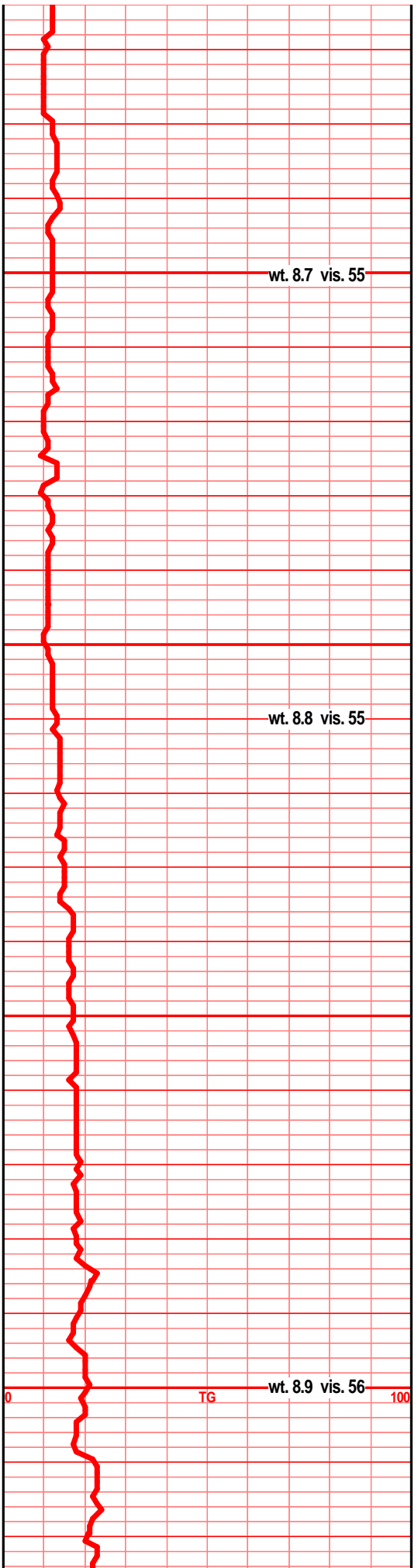
lst crm tan lt brn f sli med xln blkv sub chlky foss frags, calc xln fill, tr gritty arg

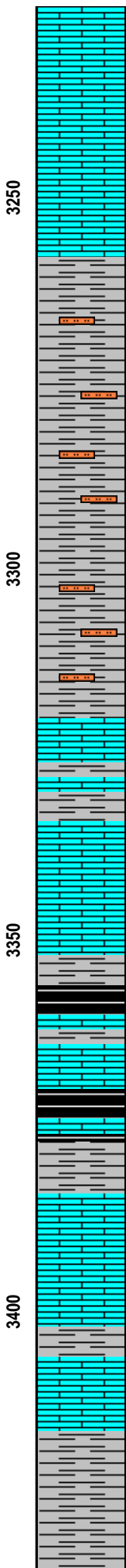
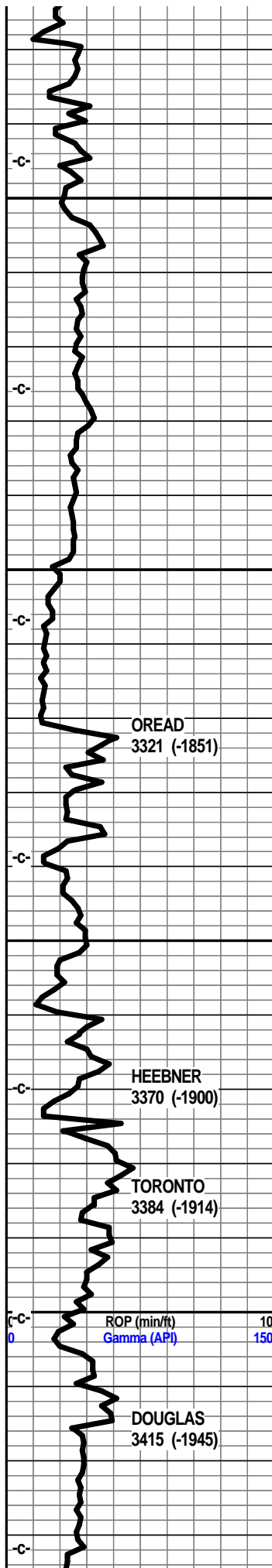
lst gry tan brn vf xln dns hrd blkv arg, calc xln fill silty gritty

shl gry med gry silty

shl gry med drk gry silty soft

lst tan brn f med xln blkv ang flkv sub chlky.





lst tan brn med xln silty arg mly sub silty, crsly foss, foss frags, gd vis inter xln por, crs calc xln fill, loose rhom calc xstls

lst tan crm brn f med xln gran flky sub chlky crsly foss, foss frags, crs calc xln re-fill, inter xln por,

lst tan brn lt brn f med xln gran flky blkly sub chlky crsly foss, foss frags, calc xln re-fill, tr inter xln por, soft

lst aa, shl gry, gry green silty gritty

shl gry, gry green silty

shl gry drk gry green silty tr sndy gritty

shl gry drk gry, gry greenish, silty sndy gritty mic in prt

shl gry drk gry green silty mic grittysoft silty

shl gry drk gry silty soft gritty tr sndy

lst tan buff, tr lt gry f xln blkly ang gran arg in prt, sub chlky, tr foss, tr calc fill

shl gry drk gry calc, lst tan buff lt gry vf xln dns hrd sub chlky gran, tr arg, tr calc xln fill

lst buff tan f xln blkly flky sub chlky tr foss frags, tr xln fill,

lst crm buff tan f sli med xln, blkly, flky, sub chlky, foss frags, gran calc fill

shl gry drk gry, blk, carb, wxy grsy, blkly ang pcs, abun gas bubs, filmy cond

lst tan buff brn f vf xln dns hrd blkly sub chlky, shl gry, gry blk, blk carb, wxy grsy blkly ang pcs, abun gas bubs

shl gry lt gry lt blue/green silty sndy, gritty, sst/sltstn lt blu/gry vf grnd ang rded fria silty clay fill

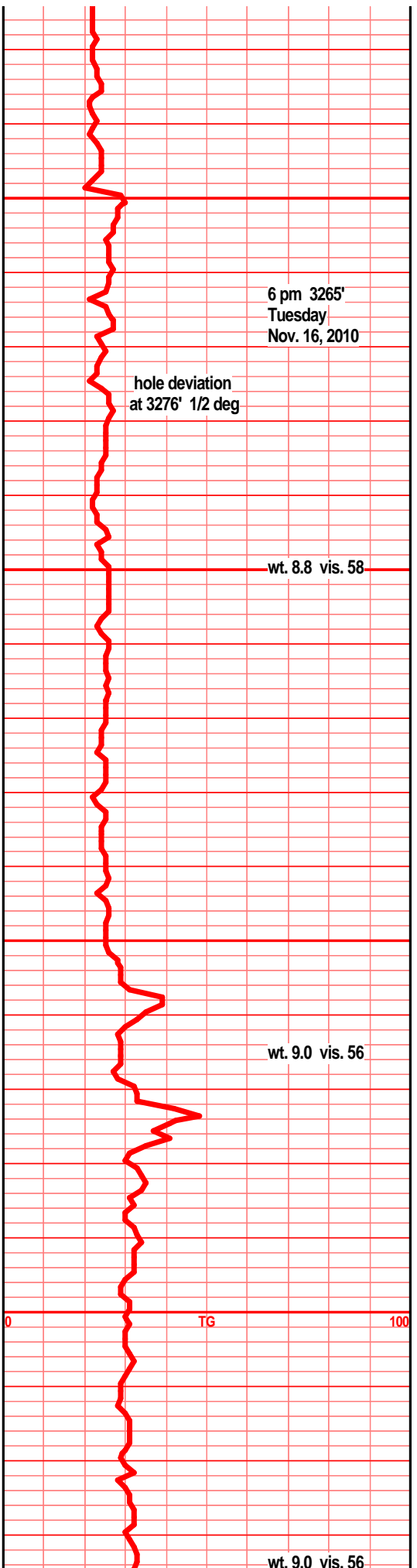
lst wht crm tan f xln soft sub chlky tr foss frags,

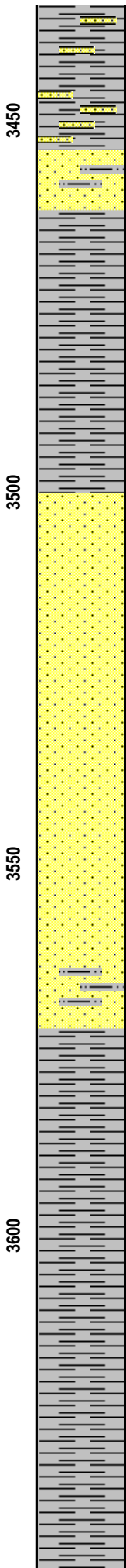
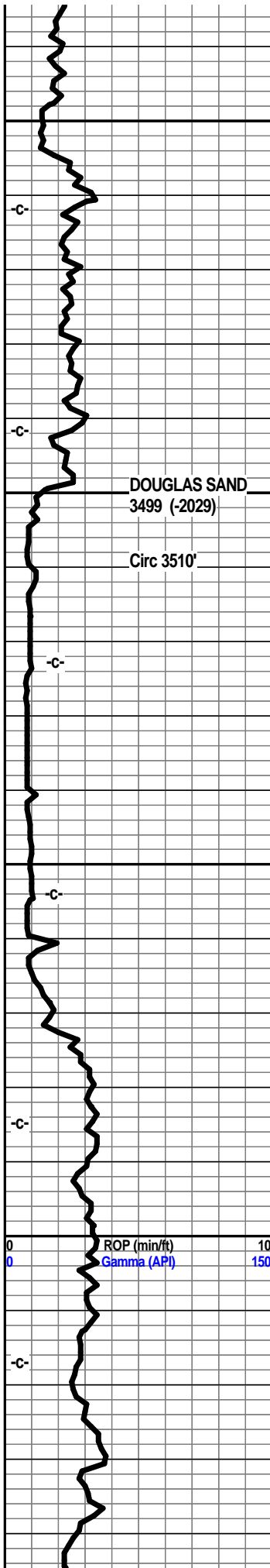
lst tan lt gry/tan vf xln gran blkly chlky soft, tr foss frags, arg

lst tan crm off wht f xln soft gran sub chlky tr foss frags, tr calc xln fill

shl gry, silty, gritty, gran, tr mic, blk carb flks, sst lt gry vf grnd, sub ang, hrd packed, dns clstrs mic clay fill

shl gry silty sndy, mic, blk carb flks





shl gry med gry/green silty gritty tr sndy mic, blk carb flks

shl gry med gry/green, silty, gritty, sm sndy, mic

sst wht tan clstrs f vf grnd sub ang grns prly srted, v/w cem, tr sub fria, mstly tite blk ang dns clstrs, clay fill, calc cem/fill tr min fill tr mic

shl gry gry/green silty, sst aa

shl gry med gry/green silty soft gran silty mic

shl gry, gry/green silty soft

sst off wht lt tan clstrs, f grnd, sub ang grns, prly srted, w/cem, sub fria, gran, calc fill/cem, blk mstly tite, min fill, mic, clay fill, arg

sst tan off wht, tr lt gry clstrs, f grnd, sub ang grns, f/prly srted, w/cem, sub fria, calc cem/fill, min fill, mic, pyritic, blk tite clstrs

sst off wht tan clstrs f grnd sub ang tr rded grns, fair/prly srted, sub fria to tite, w/cem, calc fill/cem, min fill tr pyritic, pyrite inclu, mic fill, tr clay fill

sst off wht lt gry clstrs, f grnd, sub ang grns, fair to prly srted, sub fria, w/cem, blk ang clstrs, calc fill, min fill, tr pyritic, mic, clay fill

shl gry med drk gry, silty gritty mic

aa

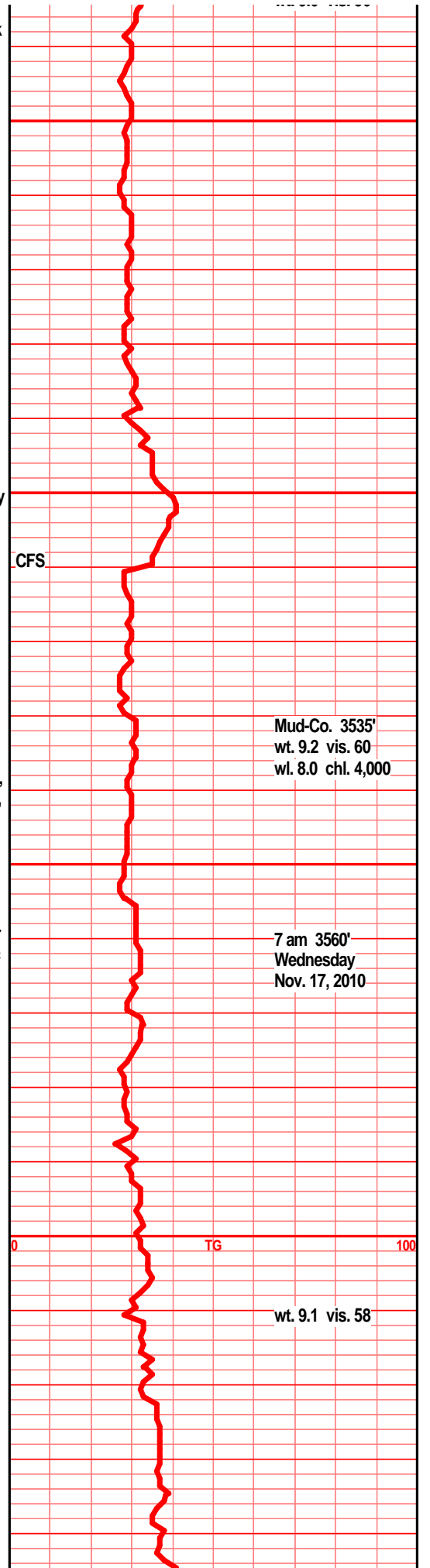
shl gry med gry silty gritty sndy mic

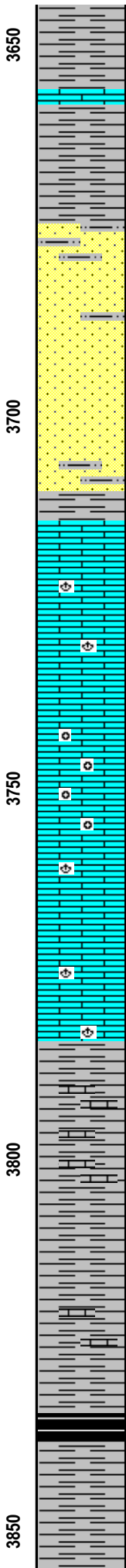
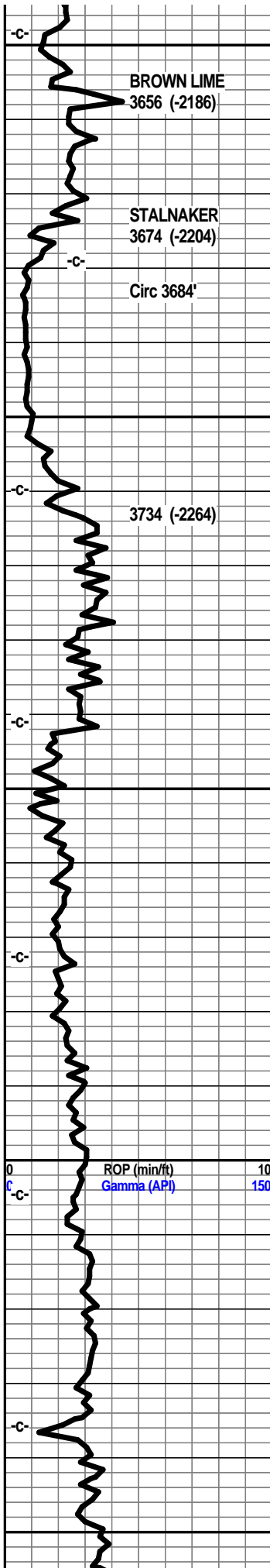
shll gry med gry silty mic soft

shl gry med gry silty mic gritty soft spls wsh gry

shl gry lt med gry silty mic gritty gran soft

shl gry med gry silty mic soft gritty gran





shl gry drk med gry silty soft gritty mic muddy, spls wsh gry/muddy

lst tan brn f med xln sub chlky, flky, blk crsly foss in prt, foss frag, calc xln re-fill

shl gry med gry, blk, bedded, silty soft muddy

sst off wht lt gry clstrs, f grnd, sub rded, tr sub ang grns, w/srtd, prly cem, calc cem/fill, sub fria to fria, gran, min fill, mic, blk min fill, tr clay fill, blk carb fill, tr gas bubs/1-2 clstrs

sst off wht lt crm lt gry f grnd, sub ang grns, prly srted, w/cem, calc fill/cem, sub fria, min fill, mic, tr glau, clay fill

sst off wht lt crm tr gry, f grnd, sub rded, f/w srted, prly cem, sub fria, calc fill, clay min fill, mic, tr glau, shl gry med gry silty sndy gritty mic

lst drk tan brn/grn f vf xln dns hrd ang arg, tr sub chlky, foss frags, calc inclu,

lst tan brn, drk gry f vf xln dns hrd blk arg, sub chlky, pyritic fill, foss frags, calc inclu,

lst gry brn, tr tan/brn f vf xln dns hrd blk arg, calc fill, sub chlky mstly dns hrd arg chlky

lst tan brn f med xln gran flky sub chlky, crsly foss, foss frags, gd inter xln por, foss mold, tr oomold por, crs xln fill, gran soft

lst gry brn f vf xln dns hrd blk arg, tr foss frags, calc xln re-fill

lst tan gry vf xln dns hrd blk arg, tr foss frags, tr chlky, shl gry drk gry calc

lst gry tan vf xln dns hrd blk arg, tr sub chlky, tr foss frags, pyritic incr gry med gry blk shls??

lst tan gry vf xln dns hrd blk arg, tr chlky, foss frags, calc fill, shl gry blk

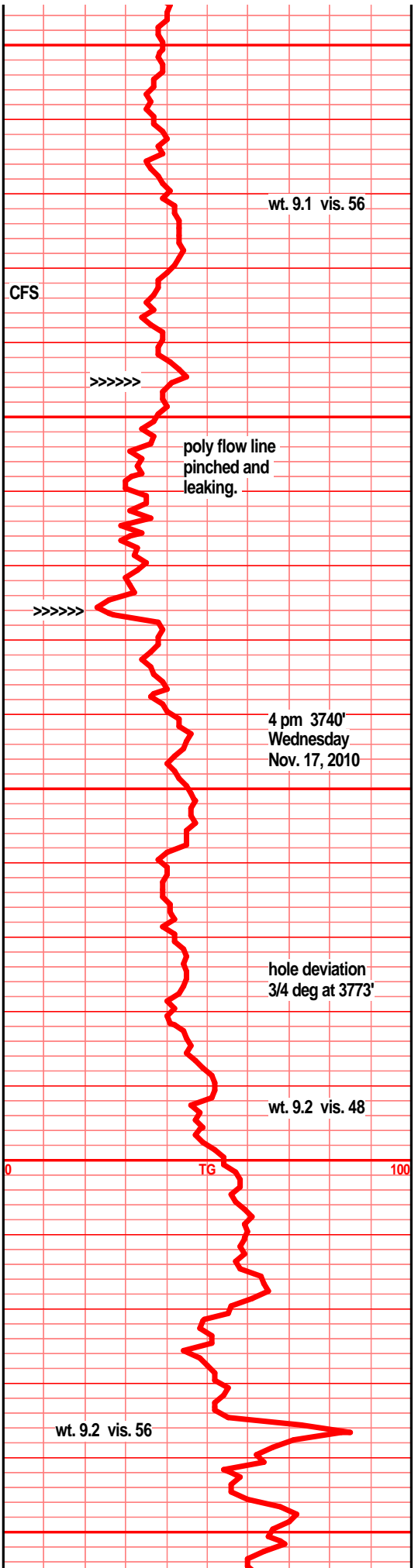
shl gry drk gry blk, silty mcuh blk carb specs/inclu, foss mat

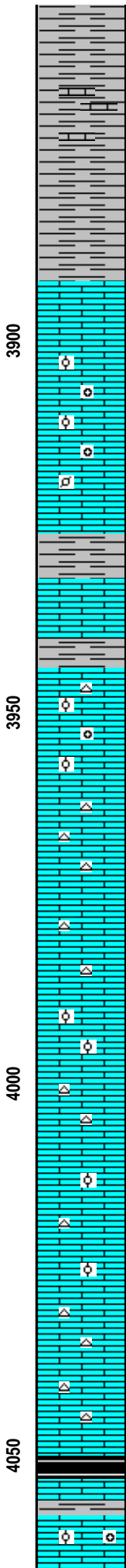
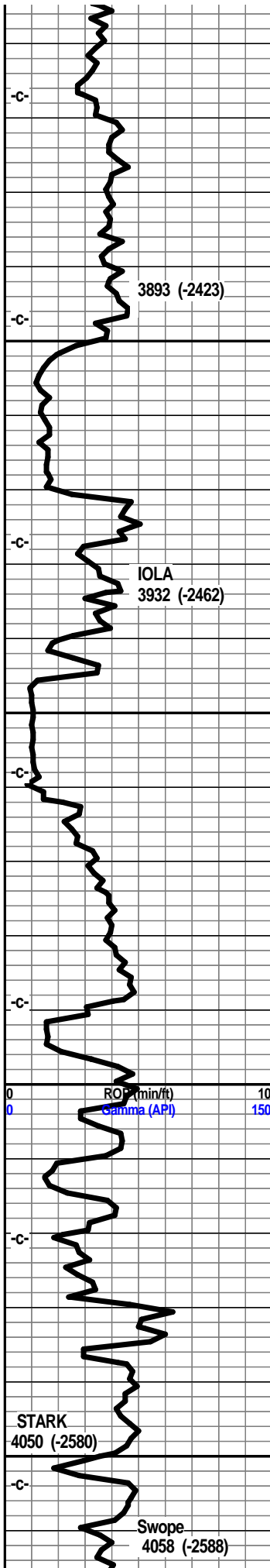
shl gry drk gry blk, silty, blk carb inclu

shl gry drk, gry/blk blk arg pcs

shl gry gry blk, blk carb wxy grsy, gas bubs

shl gry drk gry blk, calc in prt,





shl gry brn blk hrd blkly pcs

shl drk gry blkly, tr calc inclu, tr foss frags

shl dry drk gry blk, tr silty blkly hrd pcs

shl gry gry/blk, blkly ang hrd pcs, tr calc in prt, calc inclu, foss frags

lst tan gry f vf xln blkly dns hrd sub chlky tr foss frags,

lst crm tan f xln blkly ang tr sub chlky, foss frags, foss ool, calc xln fill, inter xln por, foss mold por

lst crm tan f xln blkly ang sub chlky calc xln fill, foss frags, foss ool, inter xln, foss mold por

shl gry med gry blkly, lst dull gry vf xln ang, arg dns hrd tr foss

shl tan gry calc, lst tan dull gry f xln blkly dns, arg, tr foss frags

lst crm wht tan f xln blkly ang sub chlky to chlky foss frags, foss ool, inter xln por, foss mold por, calc xln fill, chrt tan gry shrp frsh opa

lst crm wht tan f xln blkly bec dns, sub chlky, foss frags, foss ool, calc fill, chrt in prt, chrt tan gry shrp frsh opa

lst crm wht tan f xln blkly ang tr flky sub chlky/chlky foss frags, foss ool, calc fill, moldic por, chrt lt gry shrp frsh opa

lst wht crm tan f xln blkly ang dns sub chlky tr foss, mstly chlky dns hrd

lsttan crm wht f xln ang blkly pcs, sub chlky foss frags, calc xln fill, tr foss mold por tr foss ool

lst crm gry tan f xln blkly ang hrd tr chlky tr foss chrt lt gry shrp opa frsh

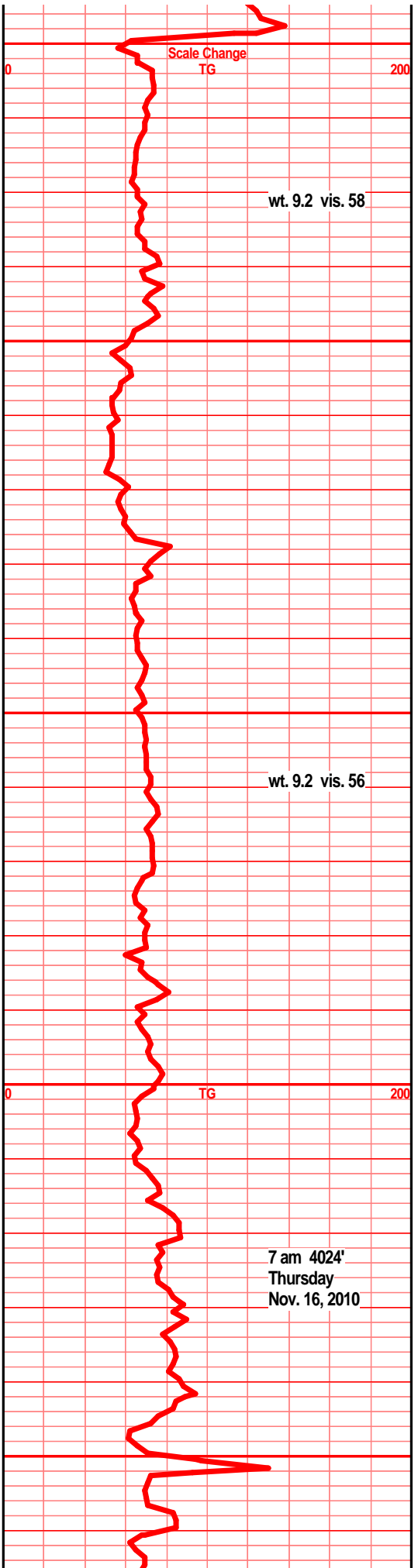
lst crm tan lt gry f xln blkly ang sub chlky foss frags, calc xln re-fill, chrt lt gry/tan shrp frsh opa

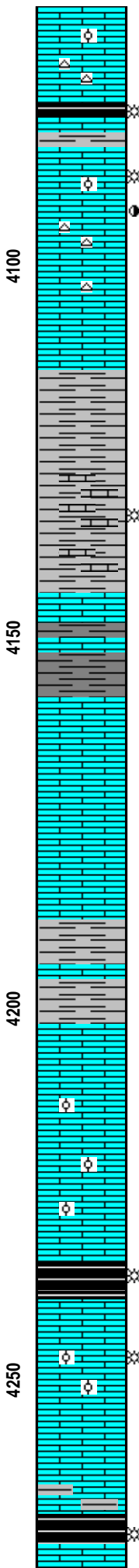
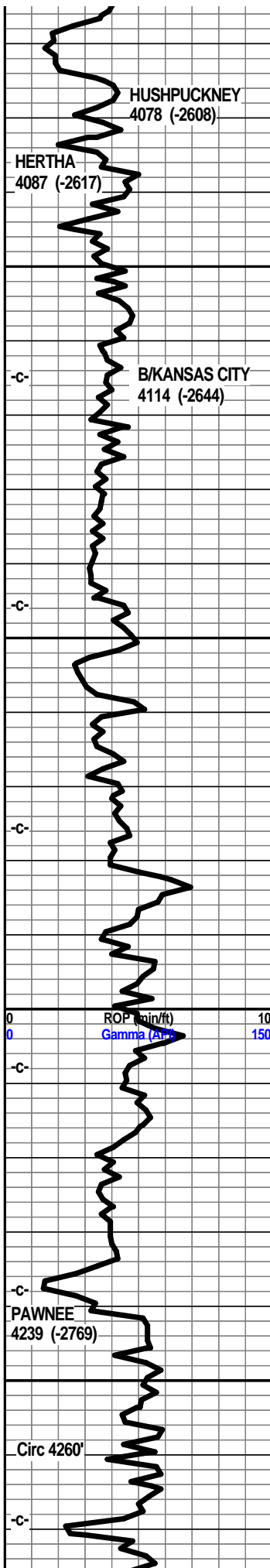
lst crm tan, f xln ang flky sub chlky foss frags, foss ool, calc xln fill, soft, tr moldic por, chrt aa

lst crm tan lt gry f xln sub chky gran ang, foss frags, tr moldic por, chrt tan gry shrp frsh

lst tan crm f xln blkly chlky calc fill, foss frags, dns, hrd, chrt tan brn shrp frsh

shl blk carb in spl, lst tan crm lt gry, f sli med xln, blkly ang, chlky, sub chlky foss frags, foss ool, foss mold por, drk stain, VSSFO, vsli odor w/brkn





1st tan crm, tr lt gry, f vf xln dns, sub chlky to soft, gran, foss frags, chrt lt gry shrp frsh opa

shl gry blk carb, 1st tan crm f xln blk ang sub chlky tr vchlky soft, tr calc fill, foss frags, tr ool,

1st crm gry tan f vf xln blk ang, inter xln por, sub chlky foss frags, calc fill, chrt in prt, odor, SSFO, gas bubs, lt stain

1st drk tan gry, f mic xln dns hrd blk, arg, tr foss frags, msly hrd arg dns massive, tr calc xln fill

shl gry blk, blk carb in prt, shl gry blk brn, crs brkn foss frags, sndy, gritty

shl gry drk gry blk, 1st drk gry brn f mic xln dns hrd blk arg silty, gritty,

shl drk gry, silty gritty, blk carb tr gas bubs, gran, tr calc tr foss content

shl gry drk gry blk, tr carb, crs foss frags, 1st drk gry brn f mic xln blk dns hrd ang arg silty

shl gry dkr gry blk, 1st tan crm buff f xln blk ang tr chlky tr foss frags, calc xln fill

1st crm buff drk tan f vfr xln dns hrd blk tr calc xln fill, tr micro foss frags, shls, gry blk brn silty, calc

shl gry blue, green, silty, gritty, 1st tan buff f vf xln blk ang dns hrd sub chlky micro foss, tr chrt chrt tan shrp opa

shl gry brn, tr gry green silty calc, 1st tan crm vf xln dn shrd blk ang micro foss chrt chrt tan shrp frsh opa

1st crm buff tan f vf xln dns sub chlky, micro foss, foss ool, calc xln fill, mstly dns

1st crm buff lt tan f vf xln blk dns hrd ang micro foss, tr calc xln re-fill, tr chlky

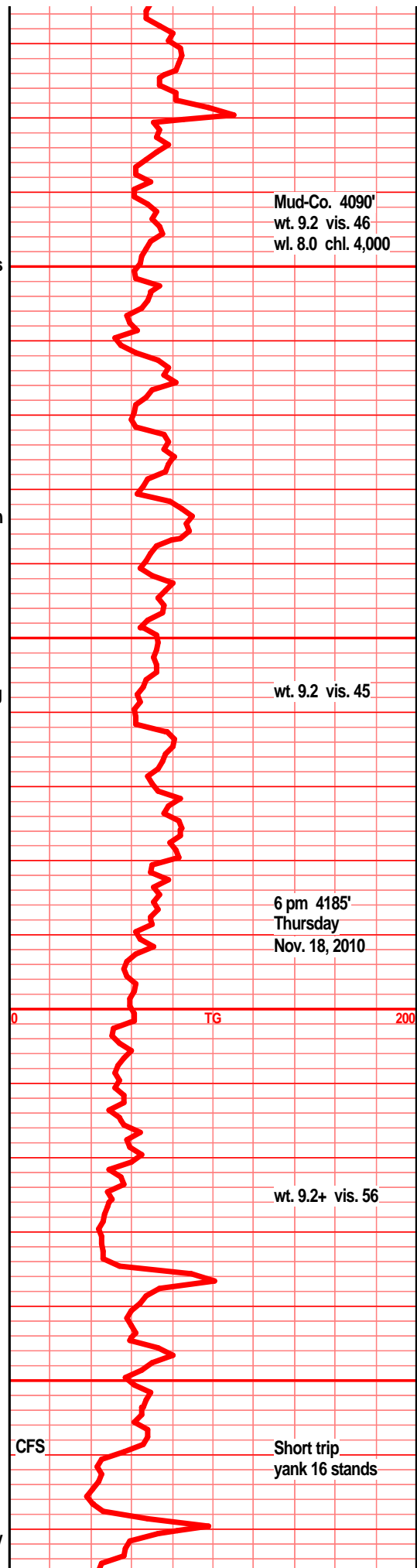
1st crm buff tan f vf xln dns hrd blk ang tr sub chlky, micro foss, foss ool, tr calc xln re-fill, mstly dns massive NVP

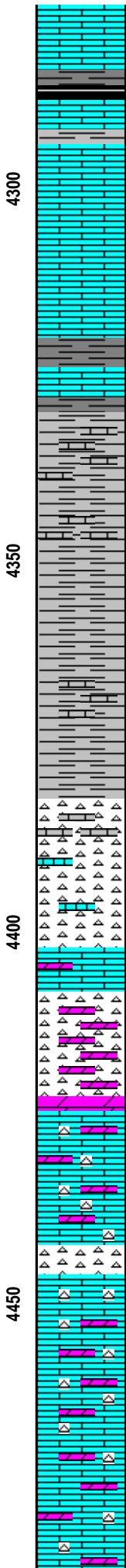
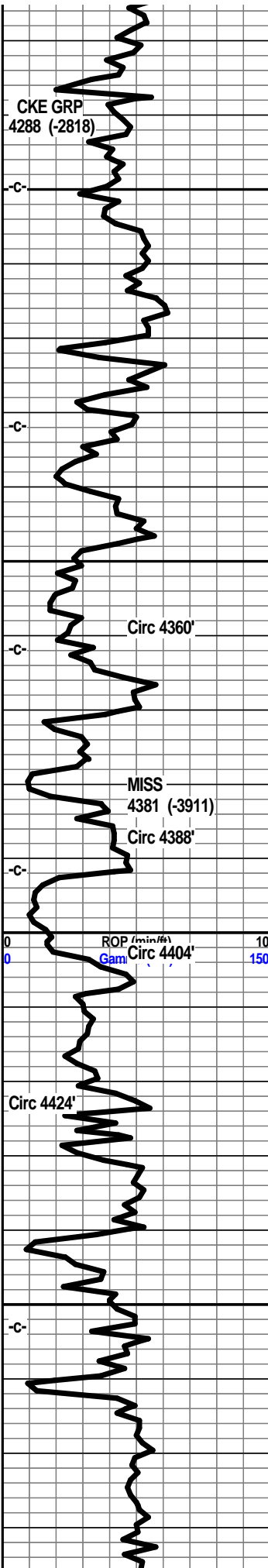
shl gry blk carb, wxy grsy tr gas bubs, 1st crm gry f vf xln dns hrd blk arg/prt tr chlky micro foss,

1st crm buff tan f vf xln dns hrd blk pcs, sub chlky, tr micro foss frags, calc xln fill, tr gas bubs on break, fair UV, tr filmy cond on brk, nodor, NSFO, NVP

1st crm buff tan f vf xln blk ang pcs. tr chlky, micro foss frags, calc xln fill

shl gry blk carb, wxy grsy, tr gas bub, 1st tan lt gry f vf xln dns hrd, blk, tr foss frags, tr chrt gry shrp





lst tan crm dull gry, f vf xln bky ang hrd tr sub clky, micro foss, ool, tr chrt tan shrp

shl gry blk carb, lst tan lt gry f vf xln dns hrs blk tr arg, tr micro foss, abun gry green shls

lst crm tan gry f vf xln dns hrd blk tr sub chlky micro foss frags, calc xln fill, mstly dns

lst tan lt gry tr lt brn f vf xln dns hrd arg, sub chlky, micro foss, mstly hrd dns tite, shls gry blk green silty gritty

shl gry drk gry blk, silty gritty, lst tan brn vf xln blk ang hrd arg foss frags

shl gry, dkr gry blk, blu/green silty ratty gritty silty

shl gry drk gry blk ratty silty, vari color shls, yllw maroon, blue, blue/green, silty soft ratty, tr brn frsh opa qrt

shl cari color, yllw, maroon, blue/green, silty ratty, lst brn f mic xln dns arg hrd

shls vari color, maroon, yllw, blu/green, tan, brn, blk, silty ratty gritty, sndy/prt

shl gry brn red, vari-color, yllw, maroon, blk, blue/green, silty ratty, tr chrt tan brn shrp, frsh, foss

shl brn, red, maroon, yllw, blue/green, blk, vari-color, ratty, silty, tr chrt tan/orange shrp, chrt wht gran, weath/frsh shrp, spls wsh red/brn

chrt wht weath, gran, spongy, pp/moldic por, blk flky stain, NSFO/Gas/odor, chrt wht shrp frsh blk semi-opaq, chrt wht/yllw tint shrp frsh semi weath, pp por, chrty lst wht f xln foss gran, soft

chrt wht off wht shrp frsh opa q, frac, blk ang pcs, tr grsy stain, gas, chrty lst wht/gry lt blue tint, f sli med xln flky gran w/wht shrp frsh opa q chrt, blk grsy stain, nodor, NSFO

chrt wht off wht, shrp frsh, blk sub opa q frac, lst wht tan f xln flky, chlky, foss frags, lst/dolo wht off wht, f mic xln blk dns hrd, chrty, wht lt tan shrp frsh, tr blk hvy stain tr gas bub? NSFO, nodor

lst tr dolo, wht off wht lt crm vf xln bky ang hrd dns, tr foss, chrty, chrt wht off wht shrp frsh sub opa q blk

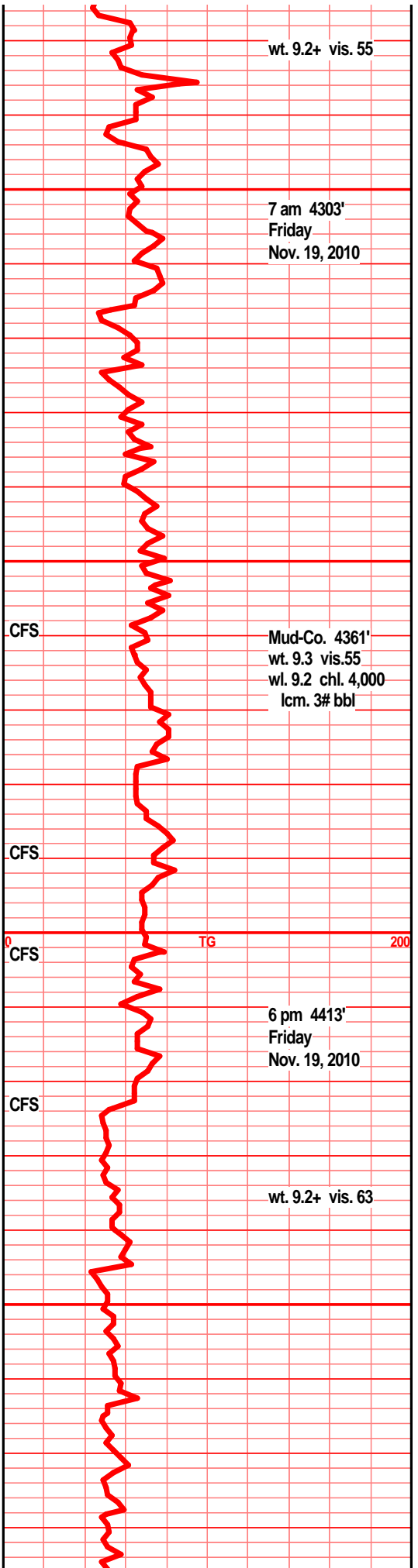
lst/dolo crm wht off wht/lt green tint, f med xln blk ang flky foss frags, chrt wht shrp sub opa q shrp frsh

lst /dolo wht lt crm f med xln blk vly sub chlky tr foss frags, dolo crm vf xln dns hrd blk ang, chrty, chrt wht off wht sub opa q shrp frsh, tr flsh color, shrp frsh opa q

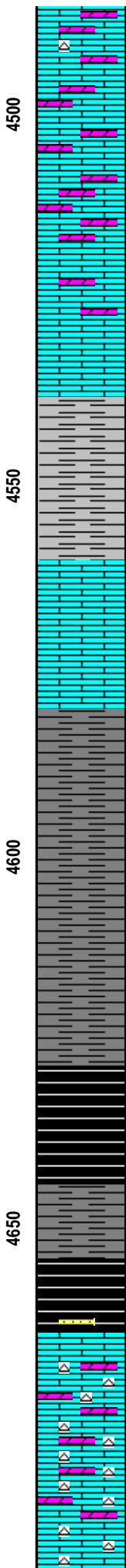
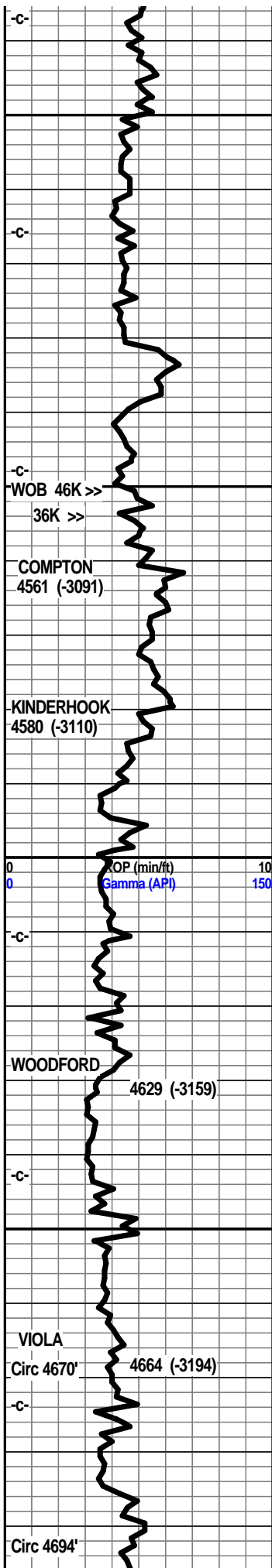
lst tr dolo, crm off wht/lt grn tint, f sli med xln blk flky, chrty, sub chlky foss frags, chrt lt tan off wht shrp frsh opa q

lst tr dolo, wht lt crm f sli med xln, blk flky and sub chlky tr foss frags, tr lt green tint, chrt wht shrp frsh opa q

lst wht lt crm f sli med xln blk flky tr sub chlky tr foss frags, chrt wht shrp frsh opa q







lst wht off wht lt crm f sli med xln gran blkly silky  
sub chlky tr foss frags, dolo lt green tint, vf xln  
dns hrd blkly ang pcs, silic text, tr chrt wht shrp  
opaq frsh

aa

lst wht crm lt tan f med xln blkly ang flky sub chlky  
tr foss frgas gran soft, dolo off wht, green tint, vf  
xln gran silic text

lst wht f med xln blkly ang flky tr sub chlky chrt  
wht shrp frsh opa, dolo wht lt green tint vf xln  
gran silic text hrd dns

lst /dolo crm w/incr lt green tint, vf xln gran blkly  
hrd tr pyritic, shl green

lst wht f med xln gran flky ang tr sub chlky tr  
foss frags, dolo off wht green tint, vf xln gran  
blkly dns, shls gry/green, green soft

shl gry green, blue green silty pyritic,

lst crm tan lt dull gry f vf lxn dn shrd blkly ang tr  
foss frags, massive

lst crm off wht tr dull lt gry f vf xln dns hrd blkly  
ang tr sub chlky, tr foss frags,

lst crm wht off wht f vf xln dns hrd blkly ang tr  
sub chlky, tr foss, shl gry med drk gry silty  
bedded, gritty

shl gry blk, gry/brn, tr reddish /brn silty gritty,  
bedded

shl gry gry/brn, blk, red/blk silty gritty

shl drk gry blk, blk/brn silty gritty

shl gry dkr med gry, blk, blk/brn silty

shl gry drk gry blk, blk/red/brn silty gritty,  
bedded

shl drk gry, blk carb, blkly ang pcs, swy grsy,  
abun gas bubs,

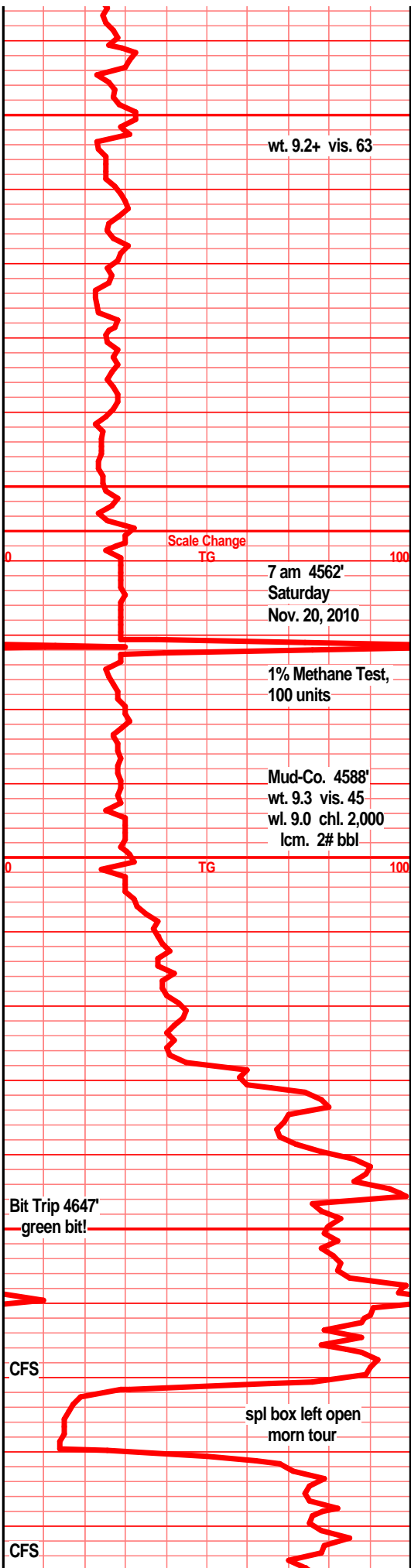
shl blk drk red/brn blk, carb, gritty silty, pyritic,  
abun gas bubs,

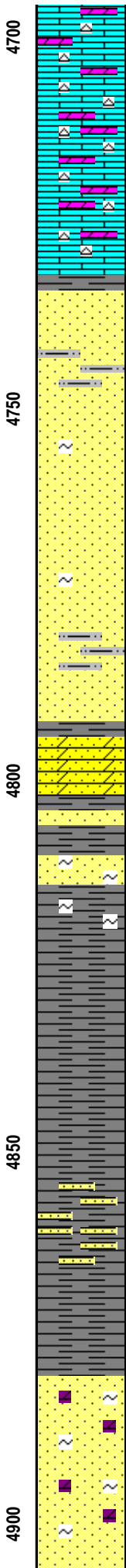
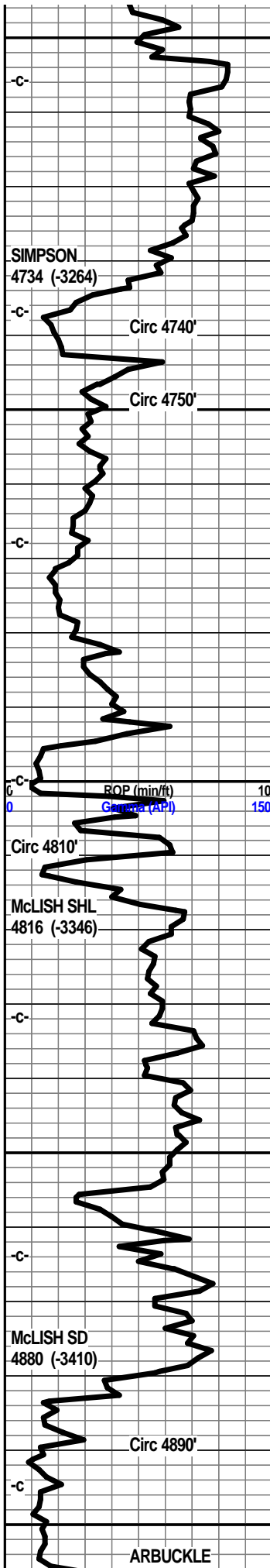
shl blk carb, shl drk brn/red/blk, gritty gran silty  
carb pyritic, abun gas bubs

shl aa, tr sst clr brn clstrs f grnd ang grns, blkly  
dns tite v/pyritic, clay/min fill 2-3 clstrs only NS,  
lst/dolo wht lt gry tint f sli med xln blkly ang flky  
inter xln por

lst wht gry tint f med xln blkly flky ang tr foss  
frags, gd inter xln por, dolo tan lt brn vf xln blkly  
ang tr silic text, tr crs sucr text, much chrt tan  
dull tan gry, shrp frsh sub opa

lst/dolo crm tan lt brn f vf xln gran blkly dns hrd,  
chrt, much chrt tan dull tan lt gry shrp frsh blkly  
opa





dolo tan brn f xln gran blkly dns silic text, chrt tan full tan shrp frsh foss, sub opaq

lst, dolo in prt, f xln bran blkly dns hrd crs suc text, chrty, chrt wht/gry, dull tan gry shrp frsh opaq

lst dolo in prt, tan brn vf xln gran gritty dns, tr suc text, tr silic, chrty, chrt tan lt gry sub opaq, shrp frsh

lst dolo tan brn f vf xln gran blkly chrty, chrt tan lt gry shrp frsh foss

sst lt gry clr, sli transl clstrs fn grnd sub ang, sub rded, well srted, sub fria to fria, tr min fill, gd inter grn por, tr gas bubs, hvy blk stain in 1-2 clstrs. nodor

sst lt tan, off wht, clr semi transl clstrs, f grnd, sub ang/rded, w/srted, prly cem, fria, gd inter grn por, tr min fill NS

sst off wht lt tan, clr clstrs, f grnd, sub rded, w/srted, fair to prly cem, silic cem, sub fria to fria, gd inter grn por, blk min fill, tr clay fill tr glau

sst off wht clr clstrs, fn grnd, sub rded, tr sub ang grns, w/srted, fair to prly cem, silic cem, sub fria to fria, gd app inter grn por, blk min fill, tr clay fill

sst clr lt gry clstrs f sli med grnd in prt, sub rded grns, w/srted, f to well cem, sub fria, silic cem, tr pyritic, min fill

dolo sst, tan brn, f grnd, sub rded grns, prly srted, prly cem, fria, suc texture, blk carb inclu, blk min fill, blk gilsonitic stain, tr gas bubs, nodor NSFO

sst wht clr clstrs f grnd sub rded, subang grns w/srted, prly cem, sub fria, much glau, min fill, shl gry green silty sndy gritty

shl gry drk gry green, blk ratty carb text

shl gry, drk green, teal green, slick, wxy, pyritic, snd grn inclu, glau, blk silty gritty carb

shl gry drk gry, green teal green, glau, pyritic, snd grn inclu, blk flky carb gas bubs,

shl aa, blk semi carb, gritty silty pcs, blkly ang pcs, much gas bubs

shl gry gry/green, teal green, tr blk ratty silty, sndy gritty

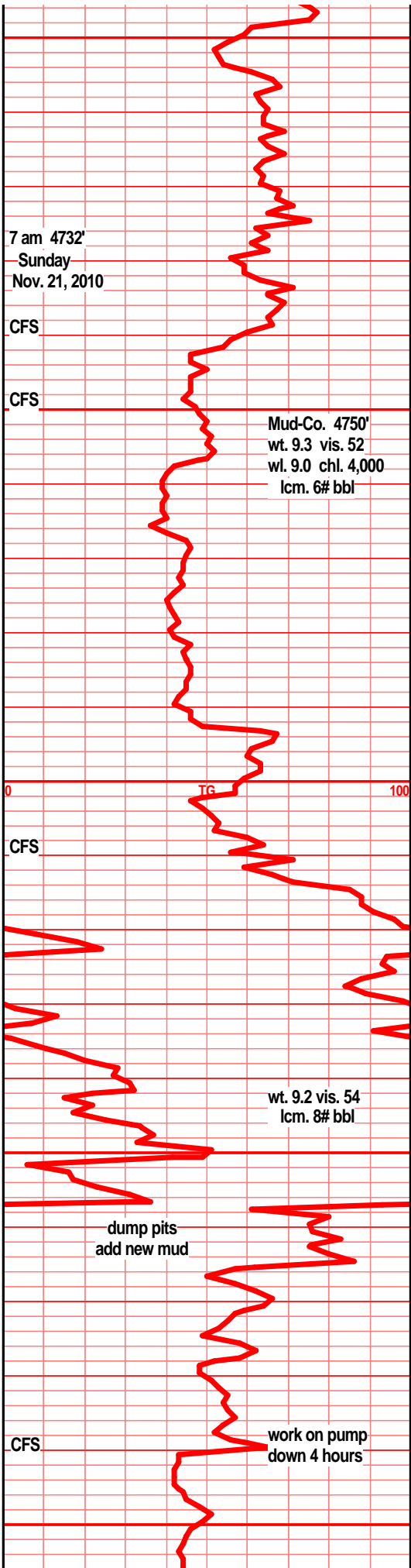
shl gry green, teal green, silty, sndy, snd gry inclu, pyritic bands

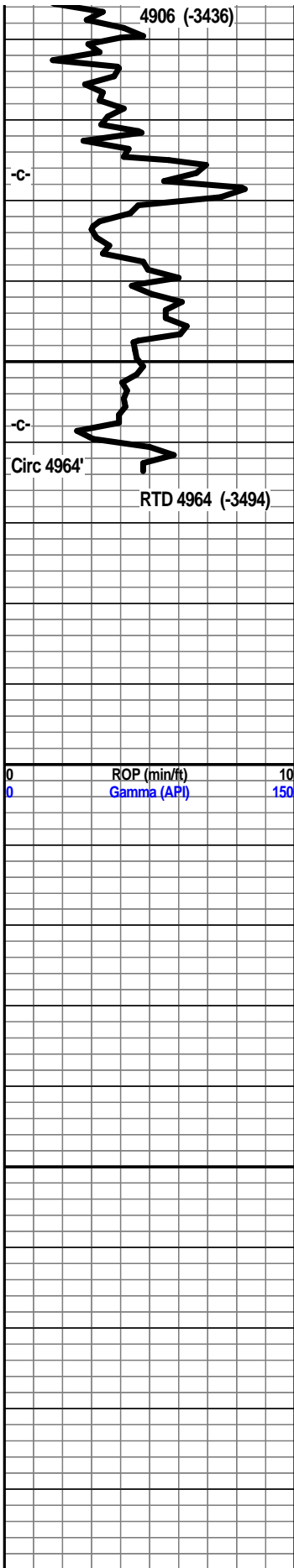
shl gry/green dark green teal green silty pyritic, sndy

sst gry f grnd sub ang, sub rded, prly srted, w/cem, silic cem, clay clast fill, glau, clay fill, arg, blkly ang clstrs, NVP NS

sst off wht tan lt brn, f grnd sub rded grns prly srted, prly to well cem, sub fria, blkly, ang clstrs, min fill, glau, tr clay fill

sst tan lt brn clstrs f grnd sub rded, prly srted, fair cem, silic cem, sub fria, min fill, glau, dolo in prt



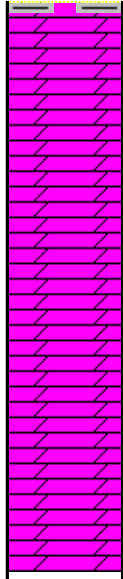


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dolo tan lt brn brn f vf xln blk ang dns hrd, tr  
snd grn inclu, tr silic text, semi suc in prt

dolo tan drk tan brn f vf xln hrd blk ang silic  
text, tr snd grn inclu, tr suc text, mstly hrd dns

dolo tan brn f vf xln blk dns hrd blk ang pcs,  
silic text, inter xln por, tr glau

dolo crm tan tr lt brn f vf xln gran blk silic text,  
xln fill, inter xln por, snd grn inclu in prt, tr rhom  
xln fill

dolo crm buff tan, f xln blk ang sli suc text, snd  
grn inclu, gd inter xln por, tr rhom xln text,

