

Geologic Report  
**Aaron L. Young**

Drilling Time and Sample Log

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

Well Name: Bell C #3  
API: 15-007-24352  
Location: Section 5 - T30S - R13W  
License Number: 31938  
Spud Date: 06/11/2019  
Surface Coordinates: 1400' FSL and 3300' FEL

Region: Barber Co., KS  
Drilling Completed: 06/21/2019

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 1931'                      K.B. Elevation (ft): 1943'  
Logged Interval (ft): 3800'                      To: 4840'                      Total Depth (ft): 4840'  
Formation: Arbuckle  
Type of Drilling Fluid: Chemical - MudCo

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

**OPERATOR**

Company: Indian Oil Co., Inc  
Address: PO Box 209  
Medicine Lodge, KS 67104-0209

**GEOLOGIST**

Name: Aaron L. Young, M.S.  
Company: Young Consulting LLC  
Address: 100 S Main, Suite 505  
Wichita, Kansas 67202

**General Info**

**CONTRACTOR:** Fossil Drilling Rig #3

**BIT RECORD:**

No.	Size	Make	Jets	Out	Feet	Hours
1	17-2/4	Milltooth RR	16-16-16	267'	267'	5.25
2	7-7/8	SMITH 516	3x13s 3x14s	4474'	4128'	85.00
3	7-7/8	SMITH NA	3x13s 3x14s	4840'	366'	15.75

Surveys: 267'-1, 778'-.5, 1287'-.5, 1603'-1, 2108'-.5, 2614'-.25, 3248'-1, 3754'-.5, 4294'-1, 4474'-1

**GENERAL DRILLING AND PUMP INFORMATION:**

Drilling with 12,000-14,000 lbs. on bit and approx 110 RPM.  
Running 10 stands of collars; 608.29'  
Pumping approx 850-950 psi at standpipe @ 57-60 SPM

## Daily Status

06/11/19 Spud @ 3:45pm  
06/12/19 WOC @ 267'  
06/13/19 Drilling @ 1096'  
06/14/19 Drilling @ 2108'  
06/15/19 Drilling @ 2614'  
06/16/19 Drilling @ 3807'  
06/17/19 Drilling @ 4395', DST #1  
06/18/19 Drilling @ 4522', DST #2  
06/19/19 TIH for DST #3, TD 4648'  
06/20/19 TOH DST #4, TD 4690'  
06/21/19 TOH for logs, RTD 4840'  
06/22/19 Ran 115 jts of new 15.5# 5 1/2" casing set @ 4811. Cem w/ 155 sx AA-2, 30 sx in rathole, 20 sx in mouse hole, 60/40 Poz.

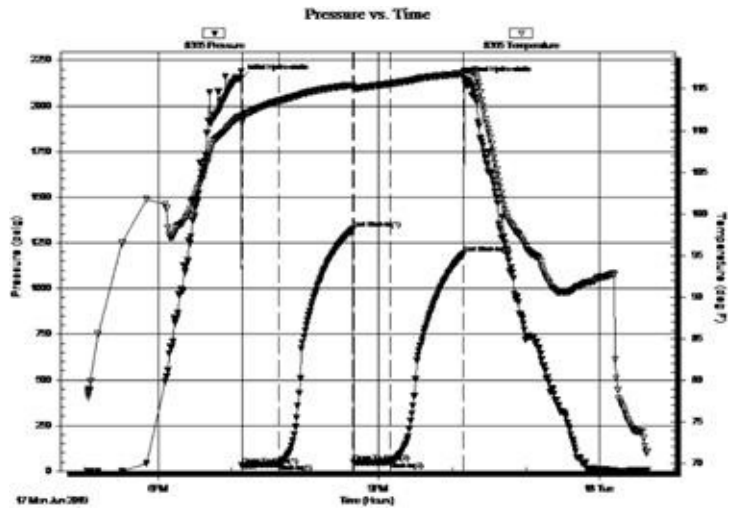
DST #1 Swope 4304'-4346'  
Straddle w/ 128' tail 30-60-30-60

Bottom packer did not hold

IF: Blow built to 1.25"  
ISI: No blow back  
FF: Few bubbles at open then died  
FSI: No blow back

Rec'd: 60' Mud w/ skim of oil (100% M)

SIP: 1326-1188#  
FP: 29-41#, 47-52#  
HP: 2150-2139#

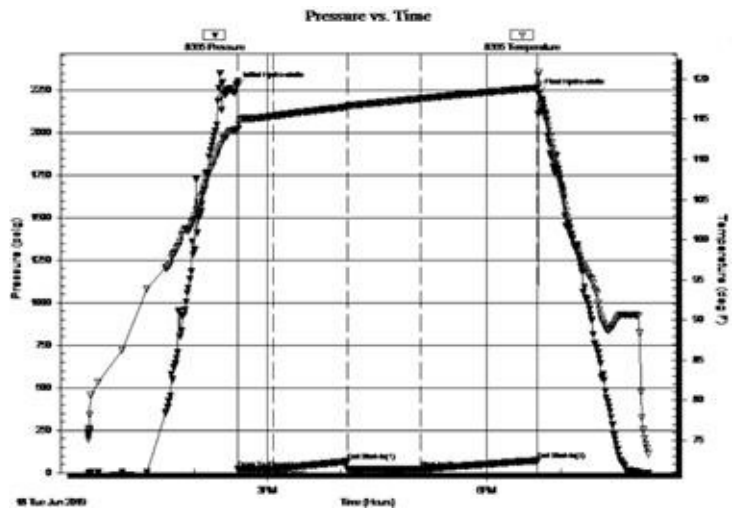


DST #2  
Kinderhook Chert 4518'-4543'  
30-60-60-90

IF: Blow built to 3"  
ISI: No blow back  
FF: Blow built to 2"  
FSI: No blow back

Rec'd: 10' Mud w/ oil spots in tool (100% M)

SIP: 66-72#  
FP: 24-23#, 20-21#  
HP: 2272-2231#



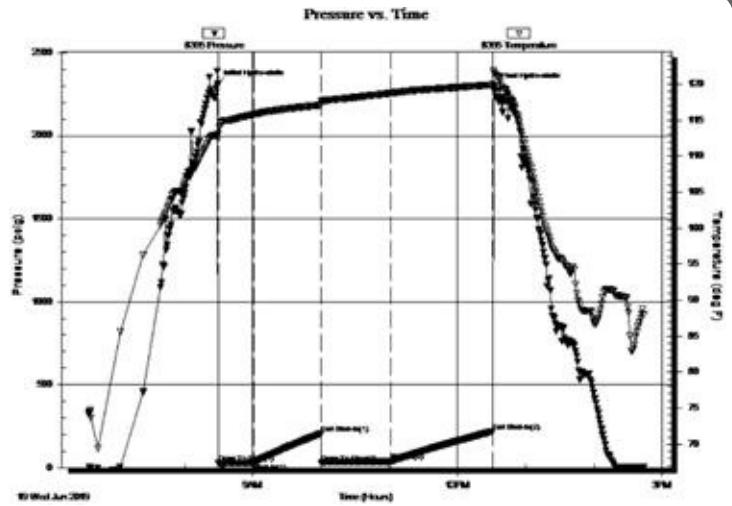
**DST #3**

Viola 4592'-4648'  
30-60-60-90

IF: Blow built to 2.5"  
ISI: No blow back  
FF: Blow built to BOB in 58 min  
FSI: No blow back

Rec'd: 30' (100% M), 155' GIP

SIP: 204-220#  
FP: 26-31#, 29-38#  
HP: 2308-2296#

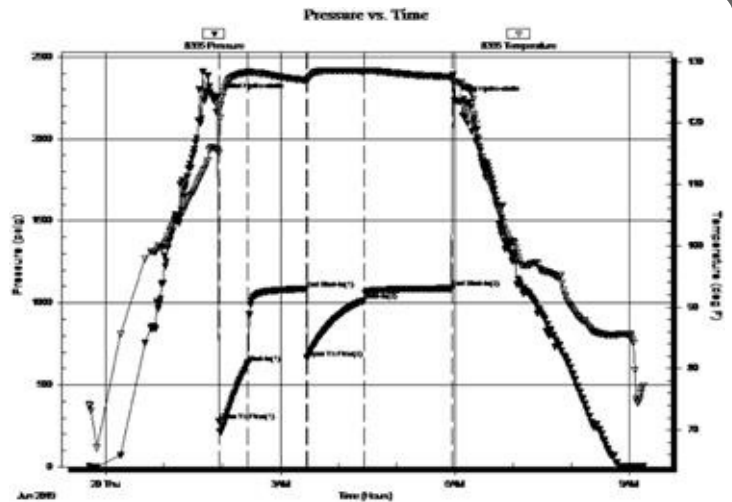


**DST #4 Simpson Sand 4648'-4690'**  
30-60-60-90

IF: BOB in 1 min/Total built 153"  
ISI: Blow back BOB in 35 min  
FF: BOB in 2.5 min/ Total build 132"  
FSI: Blow back BOB in 49 min

Rec'd: 1550' GSOCMW (10% G, 1% O, 5% M, 84% W),  
248' GOCMW (40% G, 10% O, 10% M, 40% W), 341'  
GOCMW (20% G, 10% O, 10% M, 60% W), 837' GIP

SIP: 1085-1088#  
FP: 276-634#, 662-1012#  
HP: 2258-2235#



**ROCK TYPES**

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Congl
- Dol

- Gyp
- Igne
- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Shcol

- Shgy
- Slstst
- Ss
- Till
- Carb sh
- Dol
- Dtd
- Gry sh

- Sandylms
- Shale
- Slststn
- Shlyslts
- Sltysh
- Lms

### ACCESSORIES

#### MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr



- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Silty

#### FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram



- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

#### STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh



- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

#### TEXTURE

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

### OTHER SYMBOLS

#### POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

#### SORTING

- Well
- Moderate
- Poor

#### ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

#### OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Gas show

#### INTERVALS

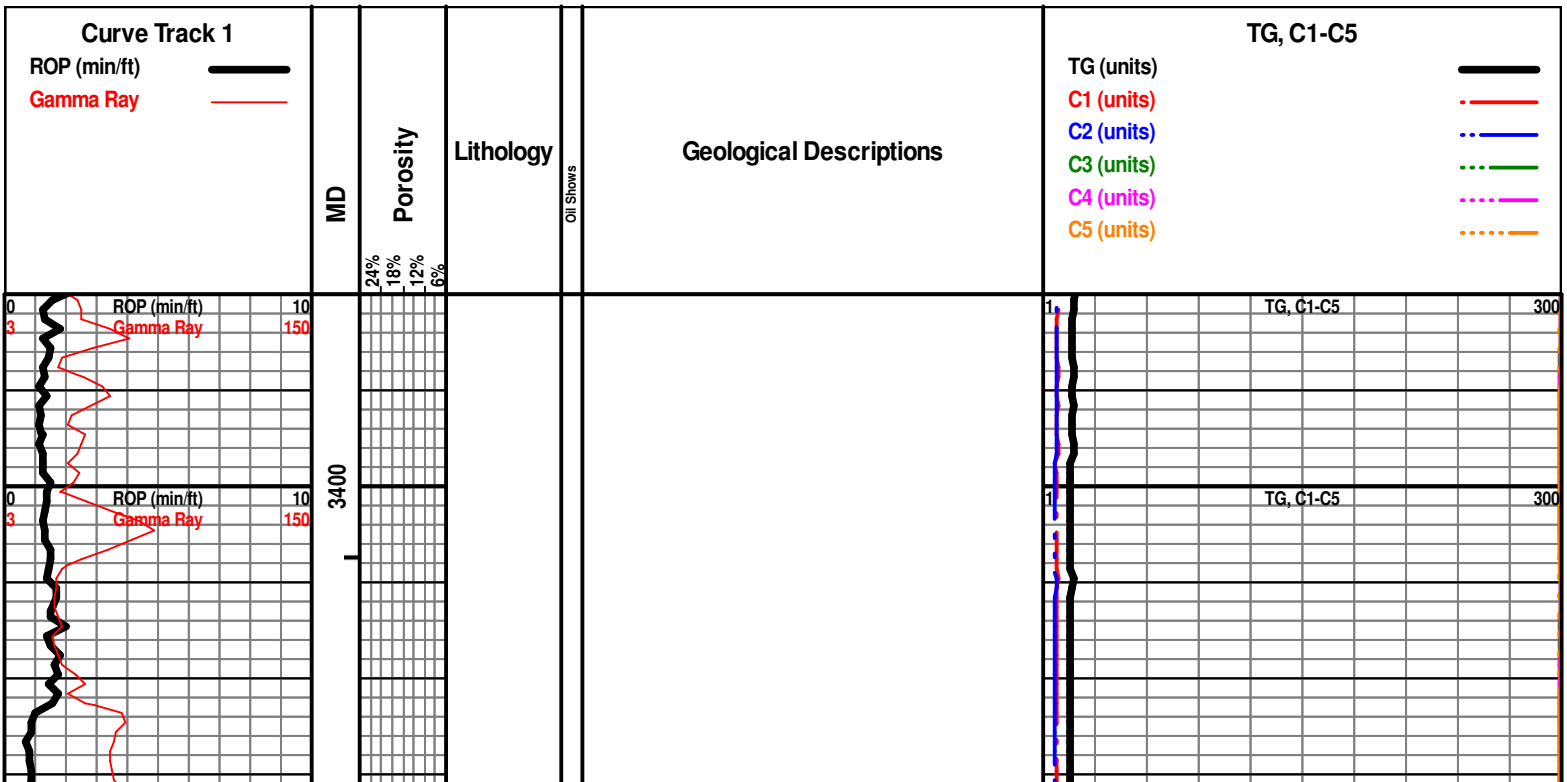
- Core
- Dst

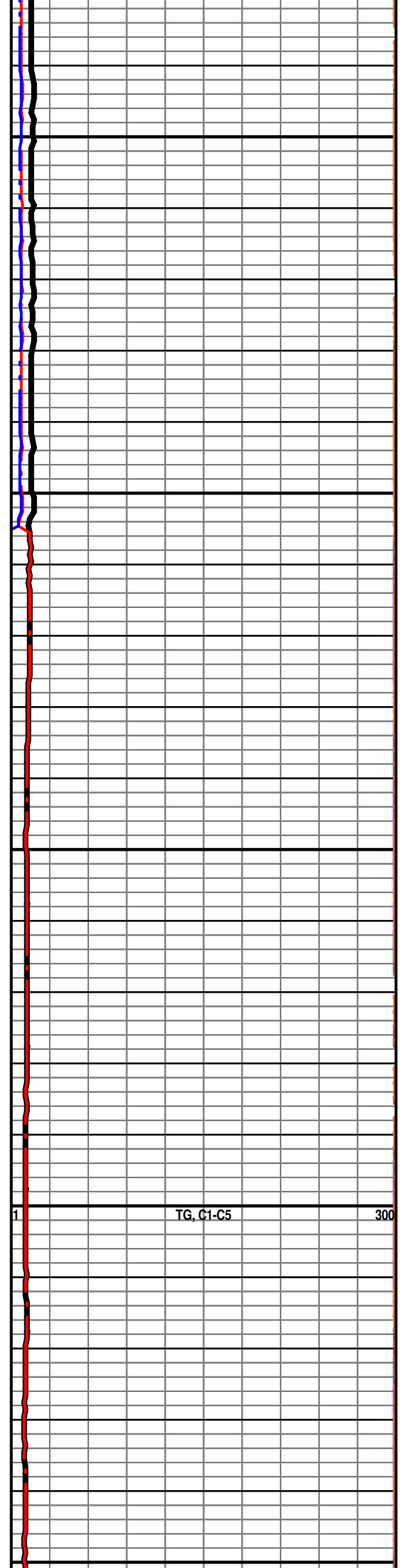
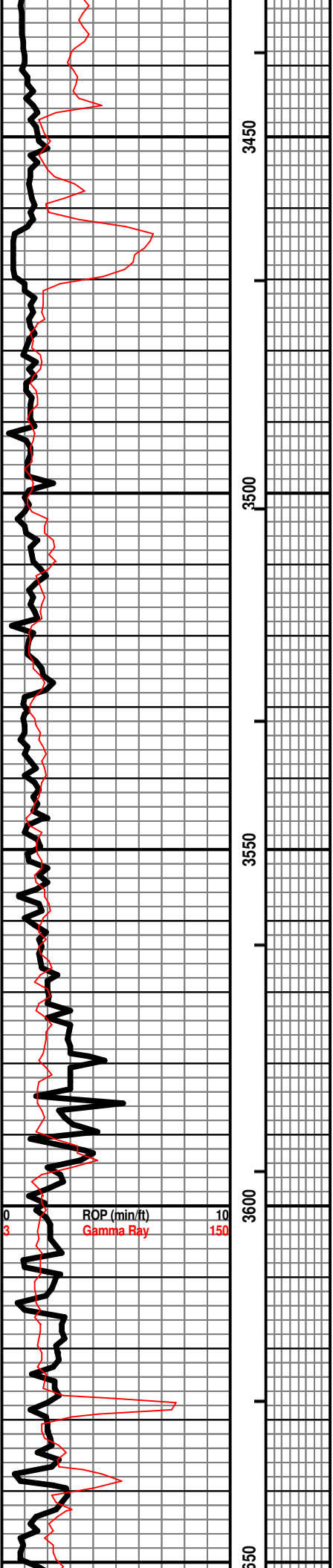


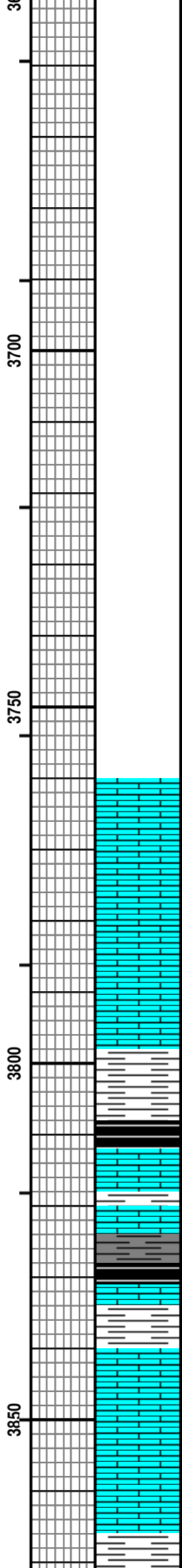
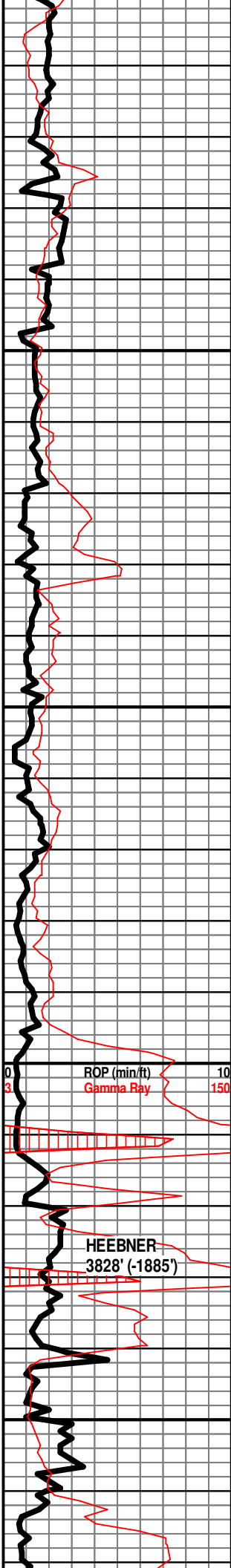
Dst

#### EVENTS

- Rft
- Sidewall
- Conn







LS - TAN / CRM, VF / F XLN, MOD DNS / SUBCHKY

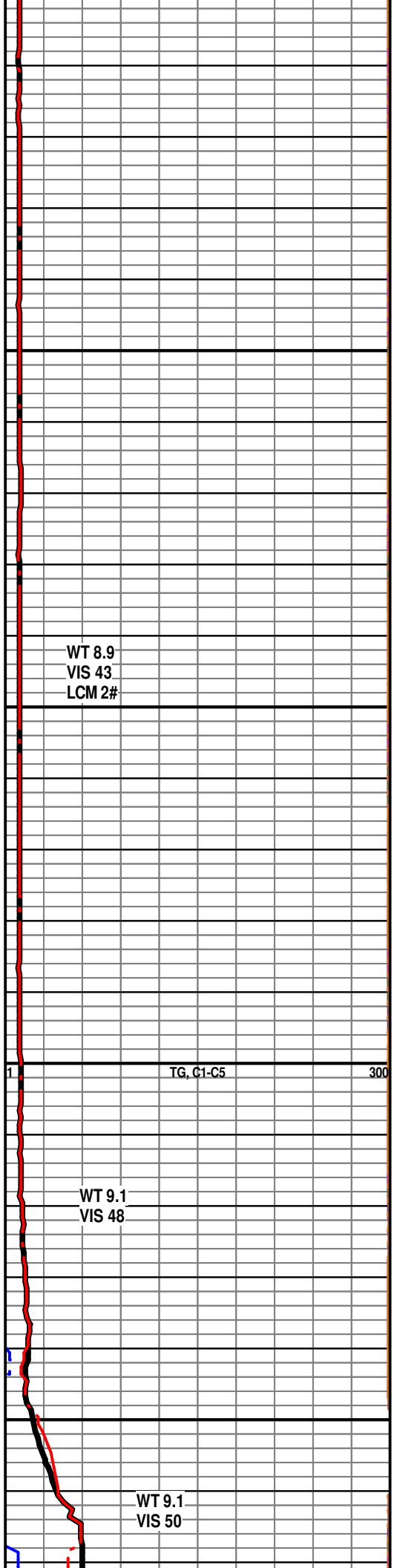
LS - CRM / TAN, VF XLN, SUBCHKY / MOD DNS

SH - DK GY / BLK, CARB

SH - BLK, CARB, W/ LS - TAN / GY, PRED F XLN, VF XLN IN PT, PRED MOD DNS / DNS, SUBCHKY IN PT, W/ FEW PIECES LS - CRM / TAN, F XLN, OOLITIC, P / F OOLMOLDIC POR, NS

LS - CRM, VF XLN, SUBCHKY / MOD DNS, CHKY IN PT, W/ SH - GY

LS - CRM / TAN, F XLN, MOD DNS

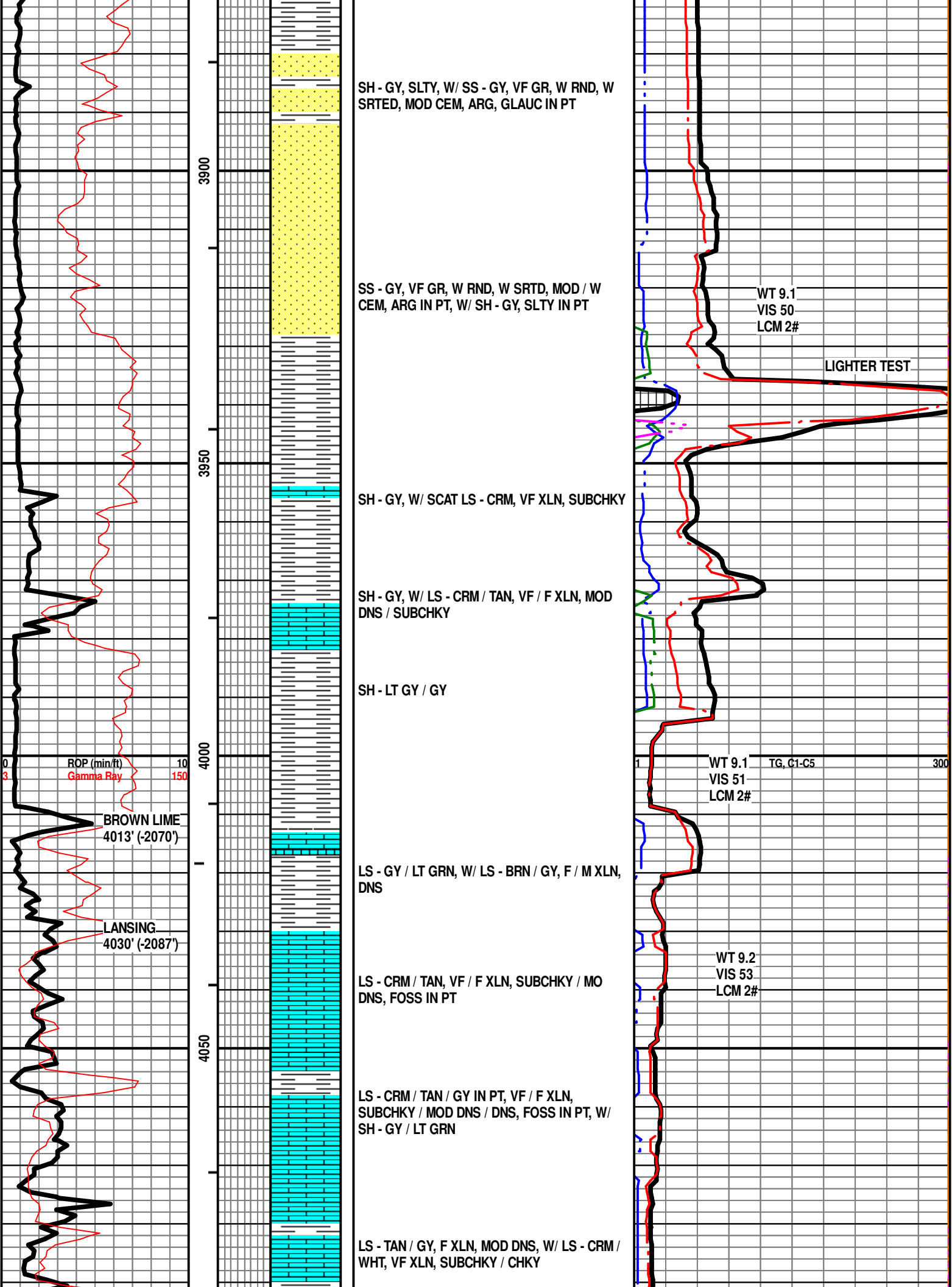


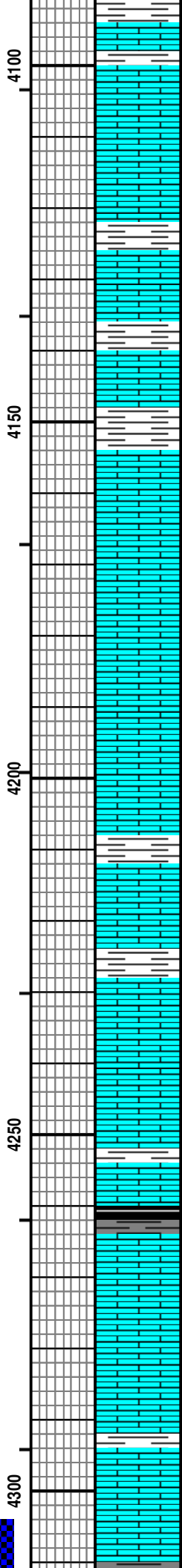
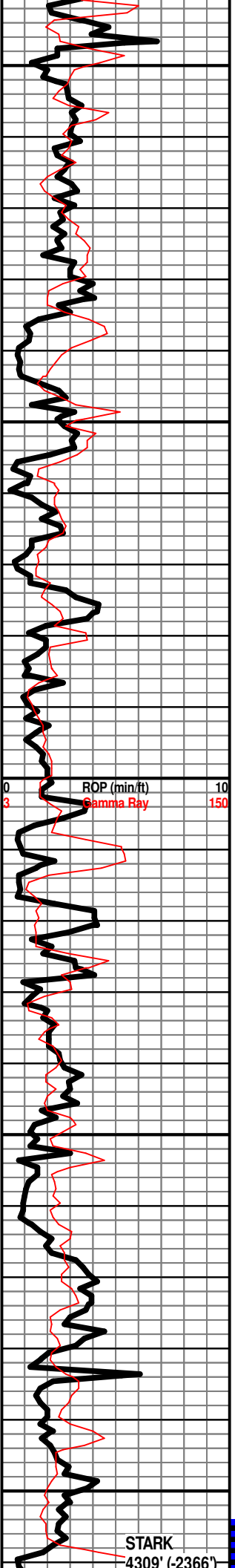
WT 8.9  
VIS 43  
LCM 2#

TG, C1-C5

WT 9.1  
VIS 48

WT 9.1  
VIS 50





LS - CRM, VF / F XLN, SUBCHKY, W/ SH - GY / RD / GRN

SH - GY, W/ LS - CRM / TAN / GY IN PT, VF / F XLN, PRED SUBCHKY, MOD DNS / DNS IN PT, FOSS IN PT

LS - CRM / TAN, GY, VF / F XLN, SUBCHKY, W/ SH - RD / GRN / GY, W/ LS - CRM / WHT, VF XLN, CHKY, W/ SCAT CHT - GY, SLI TRANSLUCNT, FRSH, FOSS

SH - DK GY / BLK, SLI CARB

LS - CRM / TAN / LT BRN, VF XLN, SUBCHKY / CHKY, W/ LS - TAN, F / M XLN, DNS

LS - CRM / WHT, V CHKY

LS - BRN / GY, F XLN, MOD DNS / DNS, OOLITIC IN PT, P / F OOLMOLDIC POR, NS, NO ODOR, NO FLUOR

LS - BRN / TAN, F XLN, ABUND FOSS, F INTERXLN POR, NS, NO ODOR

LS - CRM / WHT, VF XLN, SUBCHKY / CHKY

LS - TAN / BRN, F XLN, P / F INTERXLN POR, NS, NO ODOR, FOSS, W/ SH - RD / GRN / GY

SH - GY, W/ LS - CRM / TAN / GY, F / VF XLN, PRED DNS, P VUG POR IN PT, SUBCHKY IN PT, FOSS

LS - CRM, F / VF XLN, MOD DNS / SUBCHKY

LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS IN PT

LS - BRN / TAN / CRM, F XLN, PRED DNS, MOD DSN IN PT

SH - DK GY / BLK, CARB, W/ LS - CRM / TAN / GY IN PT, VF / F XLN, MOD DNS / SUBCHKY, ABUND FOSS IN PT

LS - CRM / WHT, VF XLN, SUBCHKY / CHKY IN PT, W/ LS - TAN, F / M XLN, MOD DNS

LS - CRM / TAN, F / M XLN, MOD DNS / DNS

LS - CRM / TAN, VF / F XLN, MOD DNS / SUBCHKY, W/ SCAT SH - GY / GRN

WT 9.3  
VIS 46  
LCM 2#

WT 9.2  
VIS 54  
LCM 2#

WT 9.2  
VIS 51  
LCM 2#

TG, C1-C5 300

WT 9.2  
VIS 49  
LCM 2#

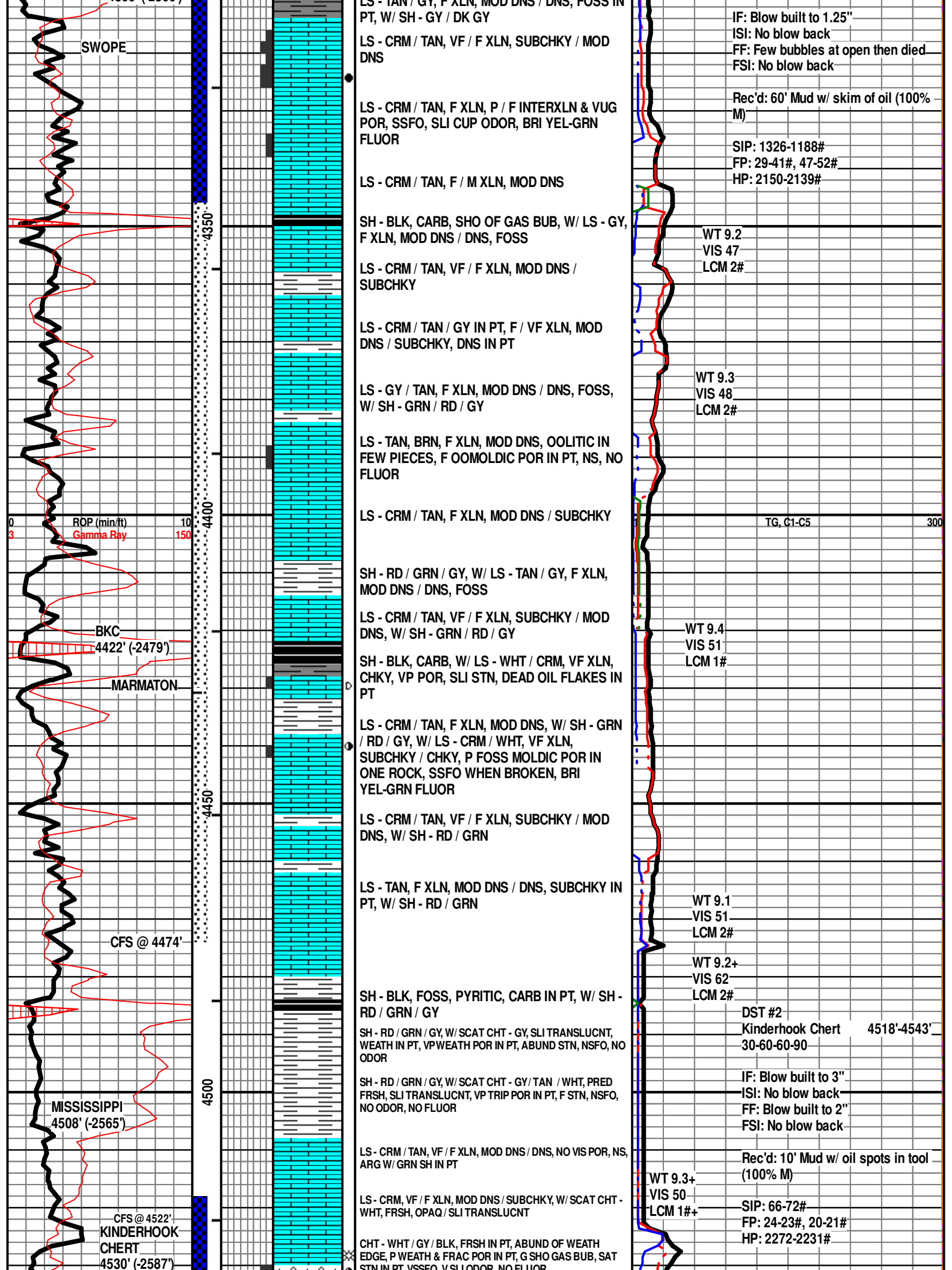
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VIS 47  
LCM 2#

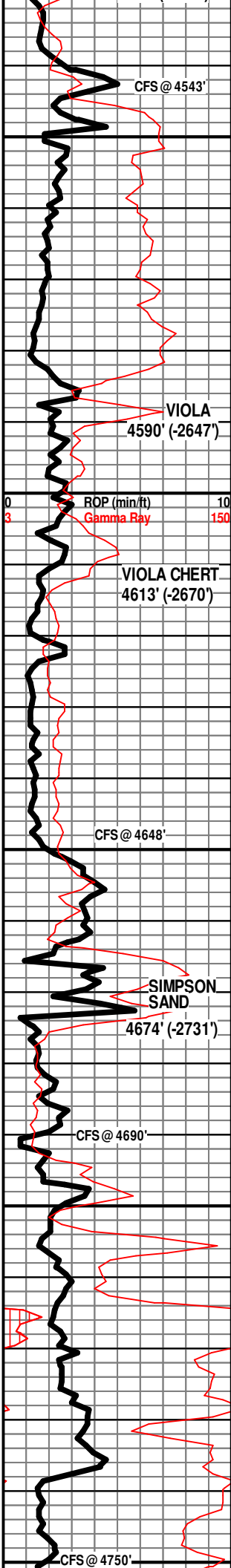
DST #1  
Swope 4304'-4346'  
Straddle w/ 128' tail  
30-60-30-60

Bottom packer did not hold

STARK  
4309' (-2366')







GRN IN PT, VSSFO, V SLI ODOR, NO FLUOR

CHT - WHT / GY / BLK, P / F WEATH POR, G SHO GAS BUB, ABUND SAT STN, VSSFO, V SLI ODOR, NO FLUOR

LS - CRM, VF / FXLN, SUBCHKY

SH - RD-ORNG / MAR / GRN / GY

SH - MAR / GRN / GY

SH - GRN / GY / MAR

LS - CRM, VF / F XLN, MOD DNS / SUBCHKY, VP INTERXLN & VUG POR IN PT, NS, ODOR

LS - CRM / WHT, VF XLN, SUBCHKY, VP INTERXLN POR IN PT, SLI STN, NSFO, NO ODOR

CHT - WHT / GY, 70% WEATH, 30% FRSH IN PT, P / F / G WEATH POR, SSFO, G SHO OF GAS BUB, G CUP ODOR, COMP SAT IN PT, F OIL SHEEN, BRI YEL-GRN FLUOR, W/ FEW PIECE OF CHTY LS - CRM, VF / F XLN, P / F INTERXLN POR, SSFO

CHT - WHT, 60% WEATH, 40% FRSH, P / F / G WEATH POR, FSFO, G SHO GAS BUB, PIECES BLEEDING OIL, LT BRN OIL,

CHT - WHT, 70% FRSH, 30% WEATH, F / G WEATH POR, GSFO, BLEEDING OIL, G ODOR, BRI YEL-GRN FLUOR

CHT - WHT, PRED FRSH, WEATH IN PT, F / G WEATH POR, GSFO, G ODOR, BRI YEL-GRN FLUOR

SH - RD / TURQ / GY

SH - RD GRN / GY, W/ LS - CRM, DOLOMITIC, F XLN, MOD DNS

SS - CLR, F / M GR, SUB-ANG / SUB-RND, P SRTD, MOD CEM, FRI IN PT, P / F INTERGR POR, G INTERGR POR IN FEW PIECES, F CUP ODOR, FSFO, G SHO GAS BUB, ABUND OIL SHEEN, BRI YEL- GRN FLUOR

SS - CLR, F GR, SUB-RND, W SRTD, F INTERPGR POR, NSFO, NO ODOR, DULL FLUOR

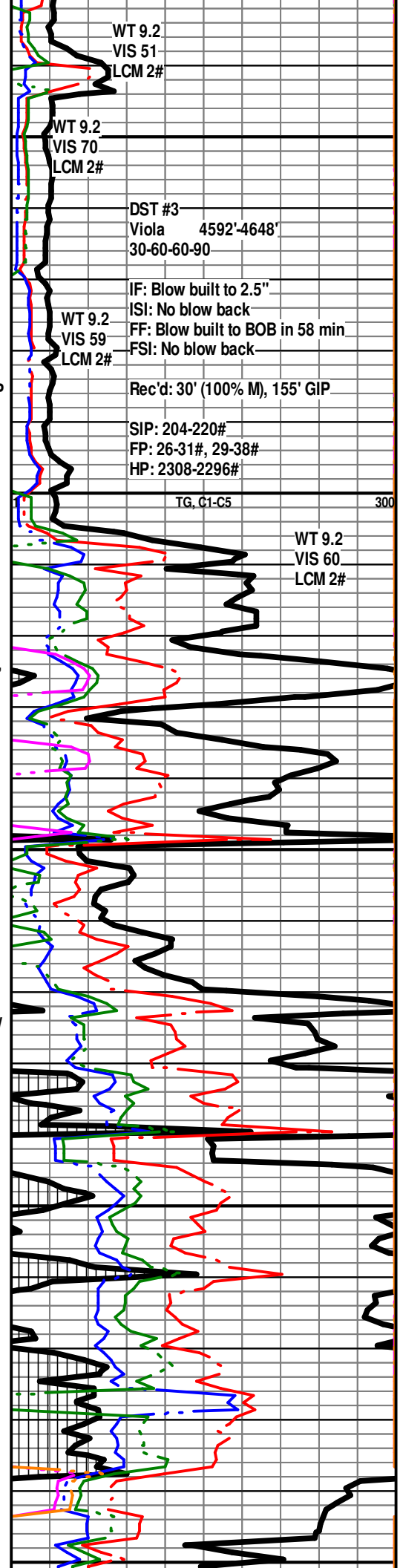
SH - DK GY / BLK, SNDY

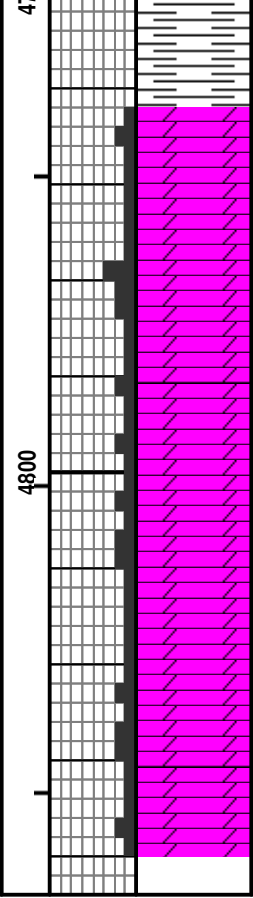
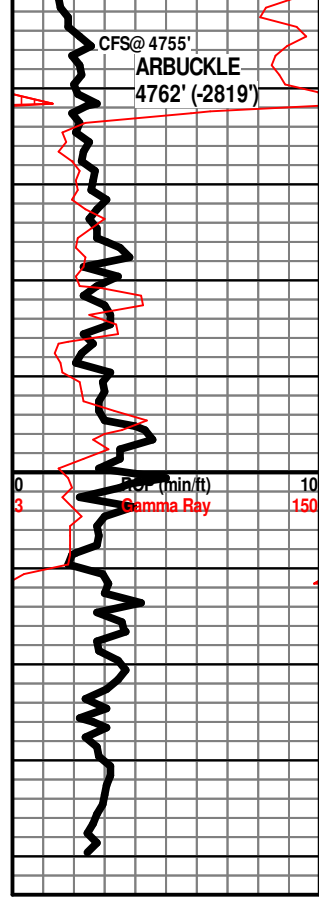
SH - GR / GRN / RD, W/ DOLO - CRM / TAN / GY, F XLN, MOD DNS

SH - PRED LT GRN / LT GY, RD / RD-ORNG IN PT

SH - GRN / GY / RD IN PT

SH - GRN / GY / RD





DOLO - TAN / WHT, F XLN, P FRAC POR IN PT, VSSFO WHEN BRKN, NO ODOR, DULL YEL-GRN FLUOR, W/ DOLO - WHT, V CHKY

DOLO - TAN / BRN, F XLN, MOD DNS, P INTERXLN POR IN PT, NS

DOLO - TAN / BRN, F XLN, MOD DNS, P / F INTERXLN POR IN PT, NS, NO ODOR, DULL YEL-GRN FLUOR

DOLO - TAN, F / M XLN, MOD DNS / DNS, P INTERXLN POR, NS, NO ODOR

DOLO - TAN / GY IN PT, P INTERXLN POR, NS, NO ODOR

DOLO - TAN, F XLN XLN, P INTERXLN POR IN PT, NS, NO ODOR

DOLO - TAN, F XLN, P INTERXLN POR, NS, NO ODOR

RTD 4840'

