

# GEOLOGIC REPORT

## DAVID J. GOLDAK

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

Well Name: Dairy #2-18  
Location: Section 12 - T17S - R32W  
License Number: API: 15-171-21141  
Spud Date: 08 / 22 / 2015  
Surface Coordinates: 1592' FNL and 513' FWL  
NE - NW - SW - NW  
Region: Scott Co., KS  
Drilling Completed: 08 / 28 / 2015  
Bottom Hole Coordinates:  
Ground Elevation (ft): 2984' K.B. Elevation (ft): 2997'  
Logged Interval (ft): 3700' To: 4840' Total Depth (ft): 4840'  
Formation: Mississippian - St Louis  
Type of Drilling Fluid: Chemical - Mud-Co

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

### OPERATOR

Company: Stelbar Oil Corporation  
Address: 1625 N. Waterfront Pkwy., Suite 200  
Wichita, Kansas 67206-6602

### GEOLOGIST

Name: David J. Goldak  
Company: D. J. GOLDAK, INC.  
Address: 155 N. Market, Suite 710  
Wichita, Kansas 67202

### General Info

CONTRACTOR: Sterling Drilling, Rig #5

#### BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	JZ-HAOTC	3-16s	315	315	2.75
2	7-7/8	JZ-HAIPG	3-15s	398	83	0.75
3	7-7/8	Ulterra-U516M	5-15s	4840	4442	62.00

SURVEYS: 315'-0.75

#### GENERAL DRILLING & PUMP INFORMATION:

Drilling with 14,000-17,000 lbs on bit and 90-100 RPM.  
Drilling with 9 stands of collars (6.25"x2.25"): 535.95'  
Pumping 60-66 S/M; 9.2-10.2 B/M; 900-1000 psi at standpipe.

## Daily Status

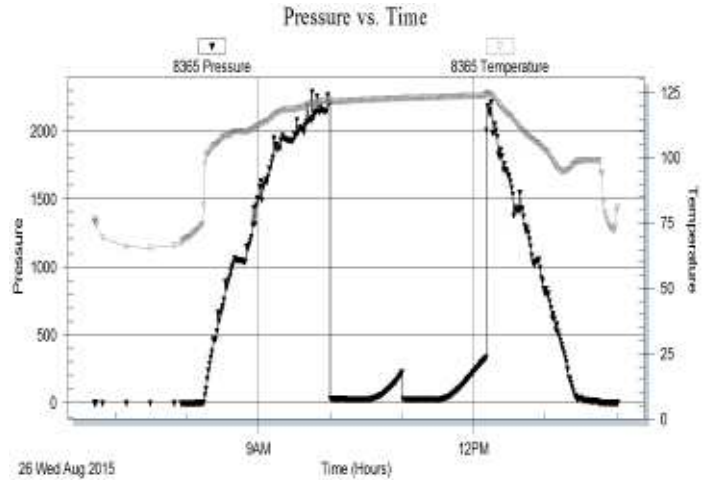
08/22/15 - Spud at 4:00 PM; Set 8-5/8" csg at 310'  
 08/23/15 - 315' WOC; DP at 9:00 PM; Bit trip at 398'  
 09/24/15 - 2,554' Drilling; Displace mud @ 3,510'  
 08/25/15 - 3,988' Drilling; Wiper-trp @ 4,339'  
 08/26/15 - 4,430' Prep for DST #1  
 08/27/15 - 4,695' TIH for DST #2  
 08/28/15 - 4,840' Logging

**DST #1: 4,354' - 4,430' (Pleasanton & Marmaton)**  
 30" - 30" - 30" - 30"

IF: 1/4 inch blow, died in 14 minutes  
 ISI: No blow back  
 FF: No blow  
 FSI: No blow back

RECOVERY: 5' Total Fluid, consisting of:  
 5' Mud (100% M)  
 Sampler: 000 ml Mud @ 0 psi

SIP: 222-333; FP: 29-25, 26-26; HP: 2202-2003; BHT: 124

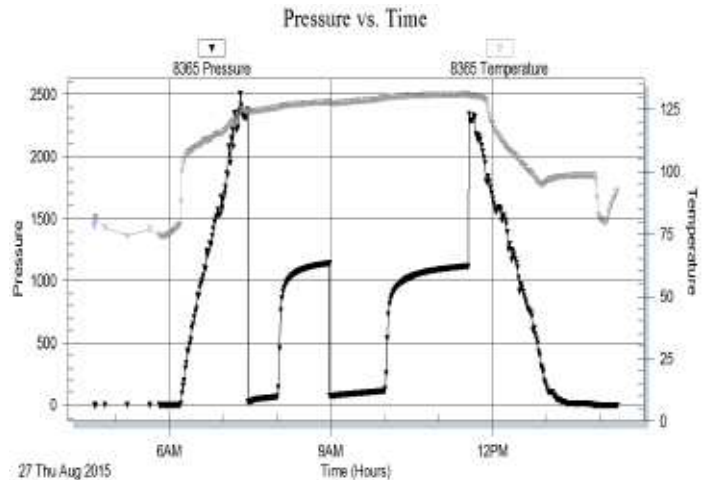


**DST #2: 4,652' - 4,695' (Basal Penn Sand)**  
 30" - 60" - 60" - 90"


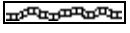
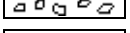
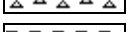
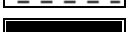



IF: Fair blow building to 4 inches  
 ISI: No blow back  
 FF: Fair blow building to 9 inches  
 FSI: No blow back







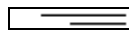

RECOVERY: 225' Total Fluid, consisting of:  
 55' CO (100% O); Oil gravity: 19 API  
 170' G&OCM (10% G, 15% O, 75% M)  
 Sampler: 1600 ml Oil & 400 ml Mud @ 225 psi

SIP: 1138-1114; FP: 25-63, 72-113; HP: 2358-2335; BHT: 131

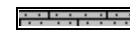

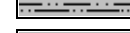
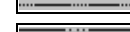

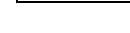


## ROCK TYPES

 Anhy  
 Bent  
 Brec  
 Cht  
 Clyst  
 Coal  
 Congl  
 Dol

 Gyp  
 Igne  
 Lmst  
 Meta  
 Mrlst  
 Salt  
 Shale  
 Shcol

 Shgy  
 Sltst  
 Ss  
 Till  
 Carb sh  
 Dol  
 Dtd  
 Gry sh

 Sandylms  
 Shale  
 Sltstn  
 Shlyslts  
 SltysH  
 Lms

## ACCESSORIES

### MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- 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
- Sltly

### 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

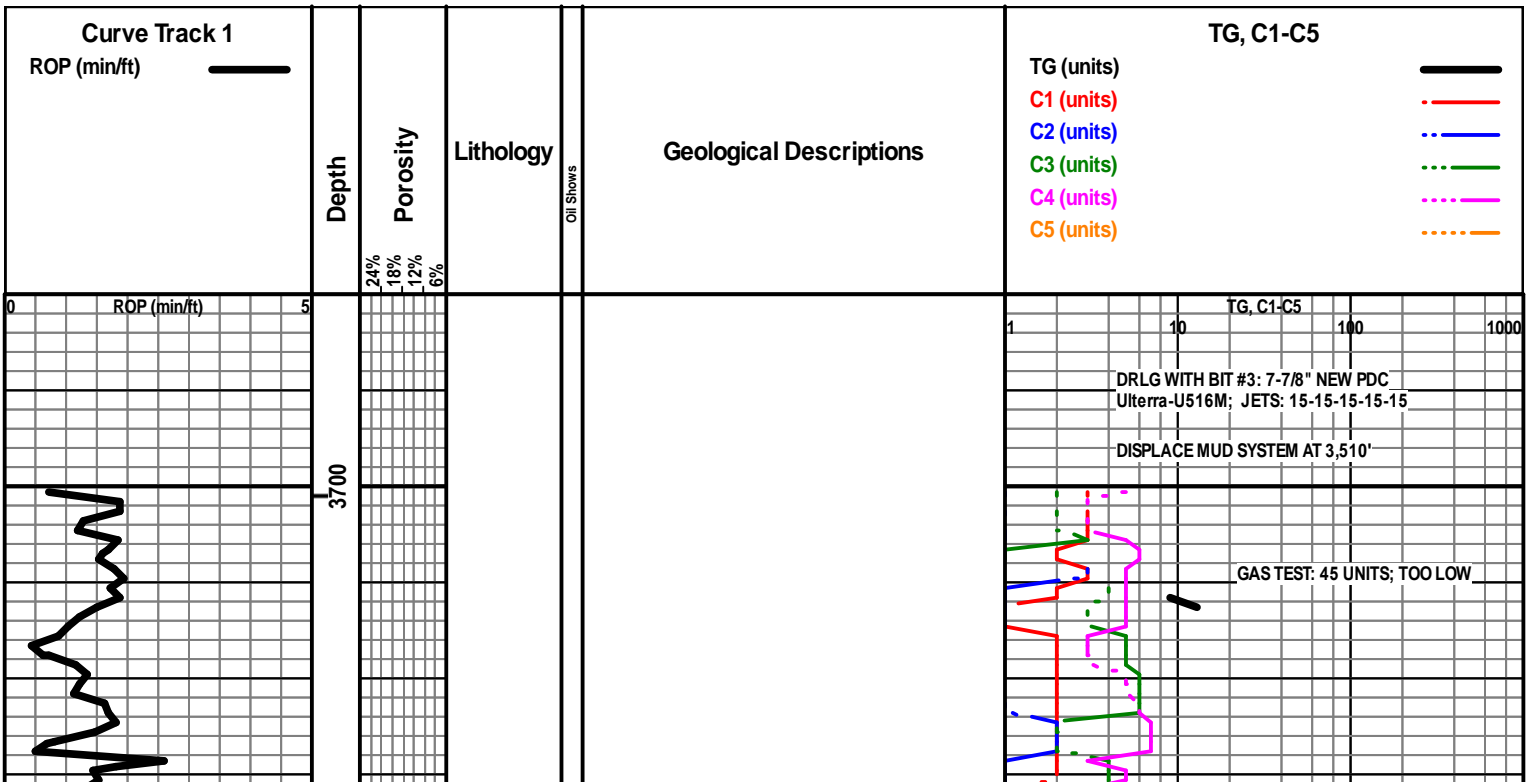
### INTERVALS

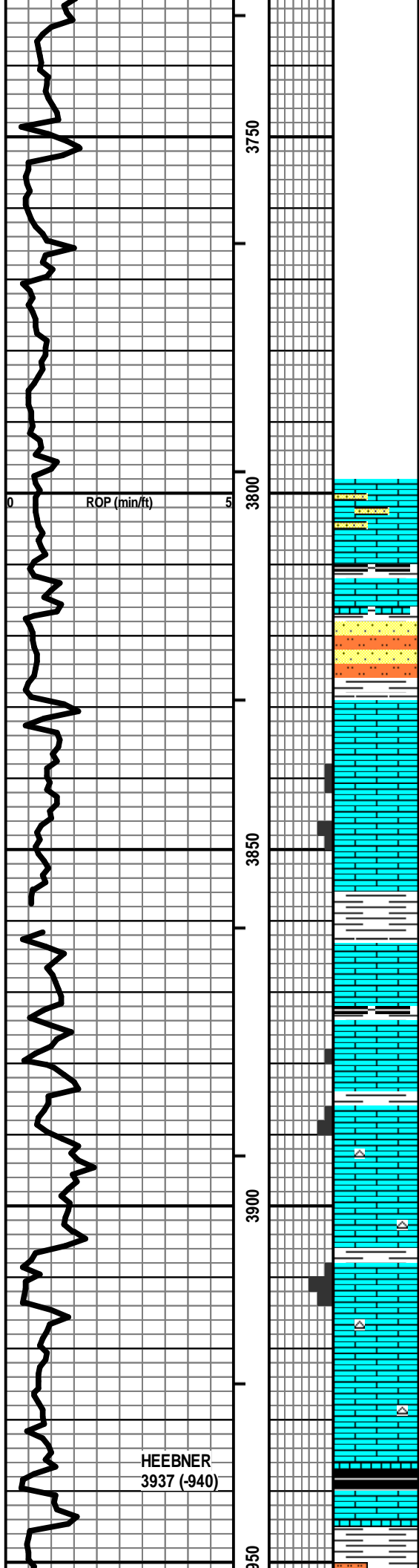
- Core
- Dst

- Dst\_1\_t
- Dst\_1\_b
- Dst

### EVENTS

- Rft
- Sidewall
- Conn





LS - TAN / CRM, VF / F XLN, SL FOSS, CHKY IN PT, TR P INTXLN POR, PRED DNS, SCAT GILS, NSFO, NO ODOR W/ SH - GY/BLK W/SLTST - LT GY/GRN W/SS - LT GY, SLT / VF QTZ GR, W SRTD, MOD MIC, F INTGR POR IN PT, NS

LS - CRM / SCAT TAN + BRN, F / VF XLN, OOL + FOSS IN PT, P / F INTXLN / INTPART POR, TR PPT POR, SCAT ASPH + GILS, VSSFO, NO ODOR, SCAT SPTY STN, F / G FLUOR + CUT

LS - ASABOVE, SCAT BARR POR, CHKY IN PT, NO ODOR

LS - TAN / GY / SCAT CRM, F XLN, SL FOSS, GRAN / DOLO IN PT, P / F INTXLN + PPT POR IN PT, NS W/ SH - GY / SCAT BLK

LS - ASABOVE W/ LS - TAN / GY / CRM, MOT IN PT, FOSS IN PT, SCAT CHKY, PRED DNS, NS W/ SCAT CHT - LT GY / WHT

LS - TAN / BRN / CRM, F / VF XLN, SL FOSS, GRAN / DOLO IN PT, F / G INTXLN + PPT POR, TR VUG POR, ARGIL IN PT, NS W/ SCAT CHT - LT GY / WHT

LS - ASABOVE, PRED P POR / DNS, CHKY IN PT, NS W/ SCAT CHT - GY / TAN / WHT

SH - BLK, CARB W/ LS - TAN, VF / F XLN, FOSS IN PT, PRED DNS, NS W/ SH + SLTST - GY / SCAT GRN

WORKING ON GAS UNIT

TG, C1-C5

EVACUATE GAS UNIT LINE

Vis: 57, Wt: 8.7,  
YP: 18, GeIS: 14/38,  
pH: 11.0, WL: 7.2,  
Ch: 2000, Sol: 2.8,  
LCM: 2#

REPLACE EXTRACTOR AND GAS UNIT LINE

GAS TEST:  
105 UNITS

HEEBNER  
3937 (-940)

TORONTO  
3960 (-963)

LANSING  
3985 (-988)

MUNCIE CK  
4163 (-1166)

LS - CRM / SCAT WHT + TAN, VF / F XLN, SL FOSS, P/F  
INTXLN + PPT POR IN PT, SCAT CHKY/DNS, NS W/  
CHT - WHT / LT GY

LS - CRM / WHT / SCAT TAN, VF / F XLN, SL FOSS +  
OOL, P / SCAT F INTXLN POR IN PT, CHKY IN PT / DNS,  
NS

LS - ASABOVE W/ SH - GY / GRN / SCAT BLK

LS - CRM / TAN, F / VF XLN, SCAT M REXLN CALC,  
FOSS IN PT, F VUG + PPT POR IN PT, SCAT SUBCHKY /  
DNS, VSSFO, SCAT ASPH, SCAT BARR POR, NO ODOR,  
SCAT SPTY STN

LS - CRM / GY / SCAT TAN, VF / F XLN, SL FOSS,  
SUBCHKY IN PT, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, SL FOSS, TR P / F VUG POR,  
P INTXLN POR, PRED DNS, VSSFO + ASPH, SCAT BARR  
POR, F ODOR, SCAT SPTY STN, P / G FLUOR + CUT

LS - CRM / TAN, F XLN, OOL IN PT, SL FOSS, SCAT P /  
TR F INTXLN POR, TR FO, SCAT SPTY STN (POSS  
CAVINGS ?), V FT ODOR, PRED DNS W/ CHT / WHT / LT  
GY / TAN

LS - CRM / WHT / SCAT TAN, VF / F XLN, SL OOL, SCAT  
P INTXLN POR, CHKY IN PT, PRED DNS, NS W/ CHT -  
WHT / LT GY

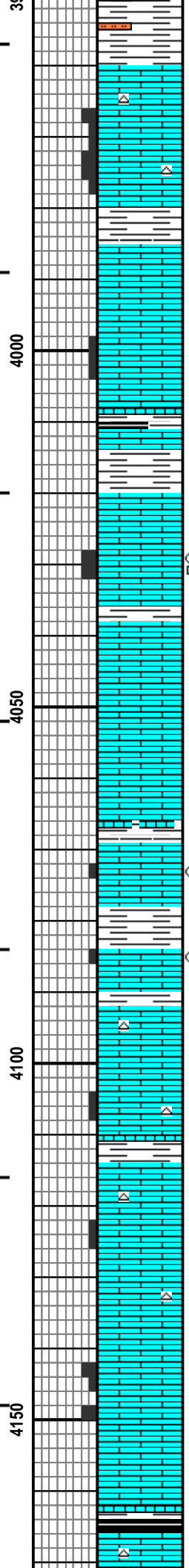
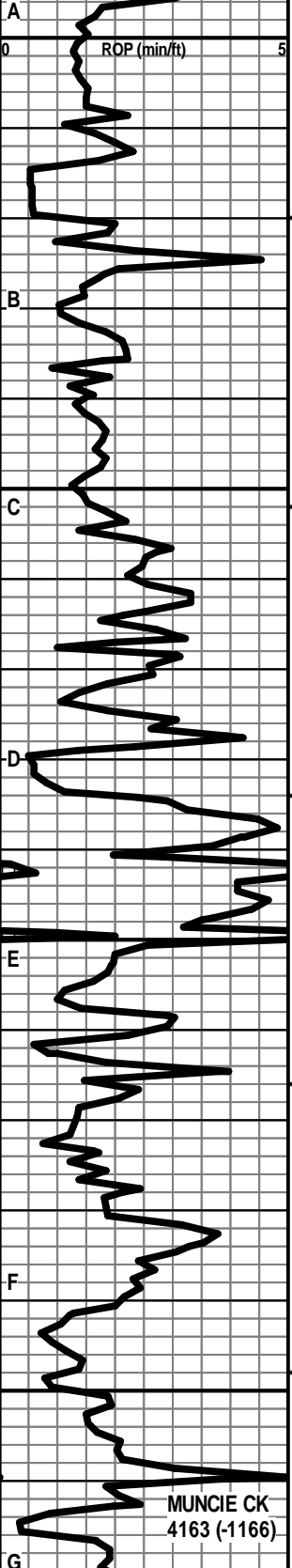
LS - CRM / LT GY, VF / F XLN, SCAT M REXLN CALC,  
OOL IN PT, SCAT P / F INTXLN + PPT + VUG POR, NS

LS - ASABOVE, PRED DNS, NS W/ SH - BLK, CARB W/  
LS - TAN / BRN, VF / F XLN, PRED DNS, NS W/ CHT - GY  
/ TAN

Vis: 50, Wt: 9.0,  
LCM: 2#

RECALIBRATE

Vis: 58, Wt: 9.0,  
LCM: 2#



LS - CRM / SCAT WHT + TAN, VF / F XLN, SL FOSS, P/F  
INTXLN + PPT POR IN PT, SCAT CHKY/DNS, NS W/  
CHT - WHT / LT GY

LS - CRM / WHT / SCAT TAN, VF / F XLN, SL FOSS +  
OOL, P / SCAT F INTXLN POR IN PT, CHKY IN PT / DNS,  
NS

LS - ASABOVE W/ SH - GY / GRN / SCAT BLK

LS - CRM / TAN, F / VF XLN, SCAT M REXLN CALC,  
FOSS IN PT, F VUG + PPT POR IN PT, SCAT SUBCHKY /  
DNS, VSSFO, SCAT ASPH, SCAT BARR POR, NO ODOR,  
SCAT SPTY STN

LS - CRM / GY / SCAT TAN, VF / F XLN, SL FOSS,  
SUBCHKY IN PT, PRED DNS, NS

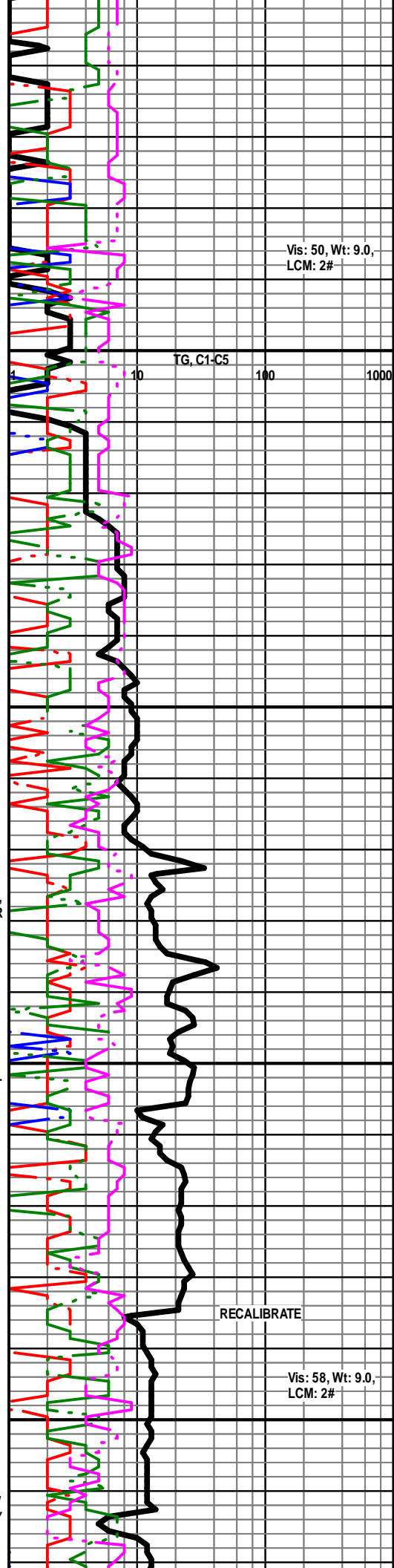
LS - CRM / TAN, VF / F XLN, SL FOSS, TR P / F VUG POR,  
P INTXLN POR, PRED DNS, VSSFO + ASPH, SCAT BARR  
POR, F ODOR, SCAT SPTY STN, P / G FLUOR + CUT

LS - CRM / TAN, F XLN, OOL IN PT, SL FOSS, SCAT P /  
TR F INTXLN POR, TR FO, SCAT SPTY STN (POSS  
CAVINGS ?), V FT ODOR, PRED DNS W/ CHT / WHT / LT  
GY / TAN

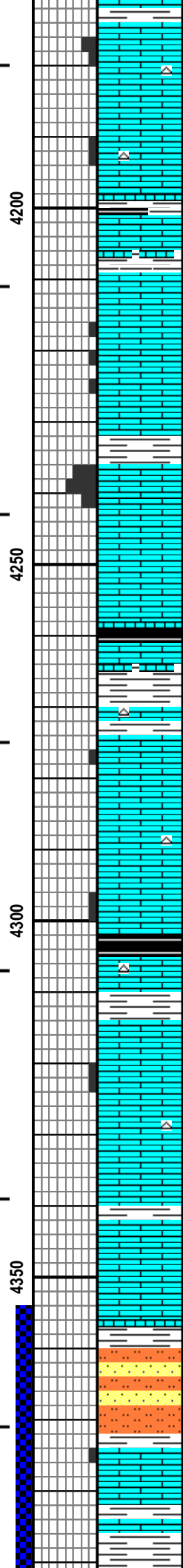
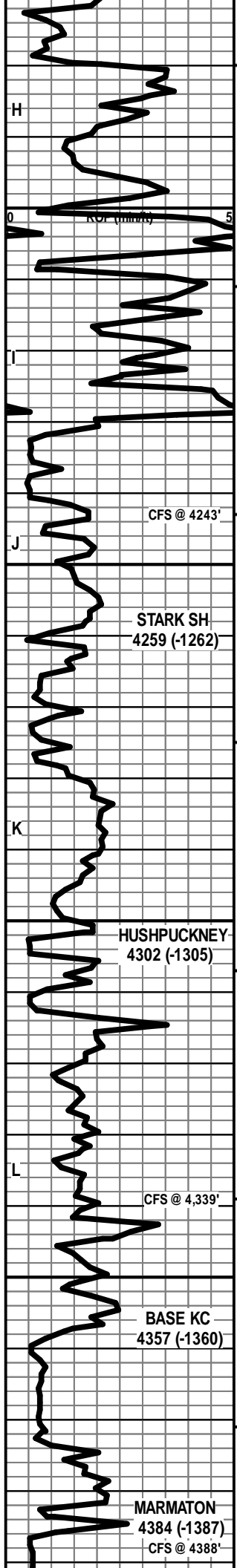
LS - CRM / WHT / SCAT TAN, VF / F XLN, SL OOL, SCAT  
P INTXLN POR, CHKY IN PT, PRED DNS, NS W/ CHT -  
WHT / LT GY

LS - CRM / LT GY, VF / F XLN, SCAT M REXLN CALC,  
OOL IN PT, SCAT P / F INTXLN + PPT + VUG POR, NS

LS - ASABOVE, PRED DNS, NS W/ SH - BLK, CARB W/  
LS - TAN / BRN, VF / F XLN, PRED DNS, NS W/ CHT - GY  
/ TAN



TG, C1-C5



LS - CRM / TAN, F / VF XLN, OOL IN PT, SCAT P / F PPT + INTXLN POR, CHKY IN PT, PRED DNS, NS W/ CHT - LT GY / WHT / TAN

LS - CRM / TAN, V SIM TO ABOVE, SCAT P INTXLN POR, PRED DNS, NS W/ CHT - AS ABOVE

LS - CRM / TAN / GY, VF / F XLN, OOL IN PT, SL FOSS, SCAT P INTXLN POR, VSSFO, SCAT ASPH + GILS, FT ODOR, SCAT SPTY STN, F / G FLUOR + CUT, PRED NS

SH - GY / GRN W/ LS - CRM / TAN / LT GY, MOT IN PT, F / VF XLN, OOL, F / G OOM + INTXLN POR, NS

LS - CRM / TAN, VF / F XLN, SL FOSS + OOL, CHKY IN PT, PRED DNS, NS W/ SCAT SH - BLK, CARB

LS - CRM / GY / TAN, MOT IN PT, F / VF XLN, SL FOSS, SCAT P PPT + INTXLN POR, PRED DNS, VSSFO + ASPH, FT ODOR, SCAT SPTY STN P / G FLUOR, F / G CUT W/ SCAT CHT - GY

LS - CRM / TAN, VF / F XLN, FOSS IN PT, CHKY IN PT, TR P INTXLN POR, PRED DNS, NS W/ SCAT CHT - GY W/ SH - BLK, CARB

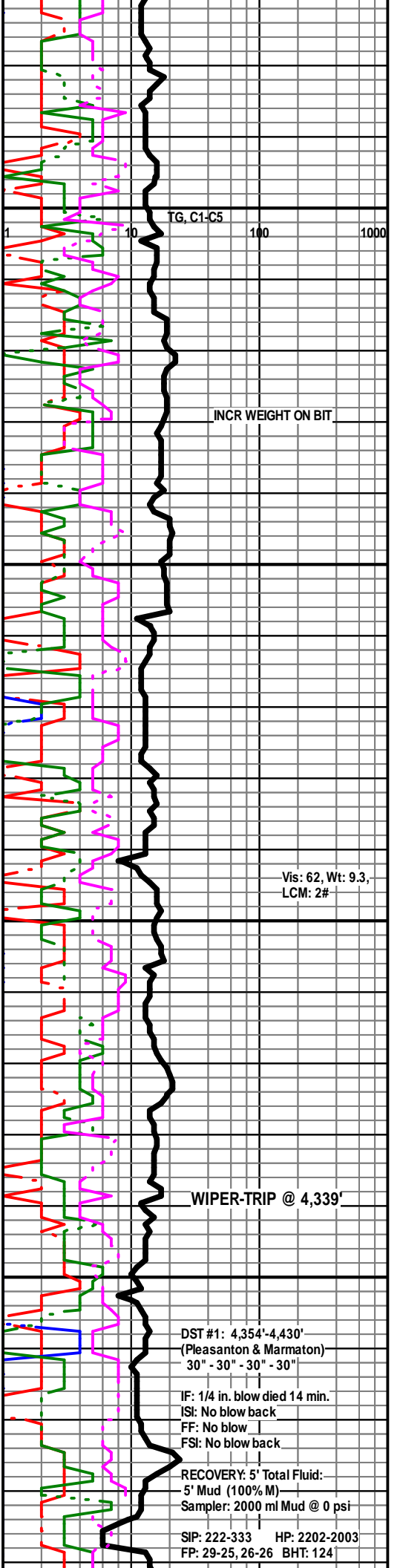
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LS - CRM / TAN / BRN, V SIM TO ABOVE, CHKY IN PT, PRED DNS, NS W/ SCAT CHT - LT GY / WHT

LS - CRM / TAN, VF / F XLN, OOL IN PT, SL FOSS, TR P INTXLN POR, SUBCHKY IN PT, PRED DNS, NS W/ SCAT CHT - LT GY

SLTST - GY / GRN W/ SCAT SS - GY, SLT / VF QTZ GR, MIC, P / F INTGR POR, NS W/ SH - GY / GRN

LS - CRM / TAN, MOT IN PT, F / VF XLN, SL OOL, GRAN IN PT, SCAT PPPT + INTXLN POR, SUBCHKY IN PT / PRED DNS, VSSFO, SS ASPH, V FT ODOR, SCAT SPTY STN, F / G FLUOR + CUT



CFS @ 4243'

STARK SH  
4259 (-1262)

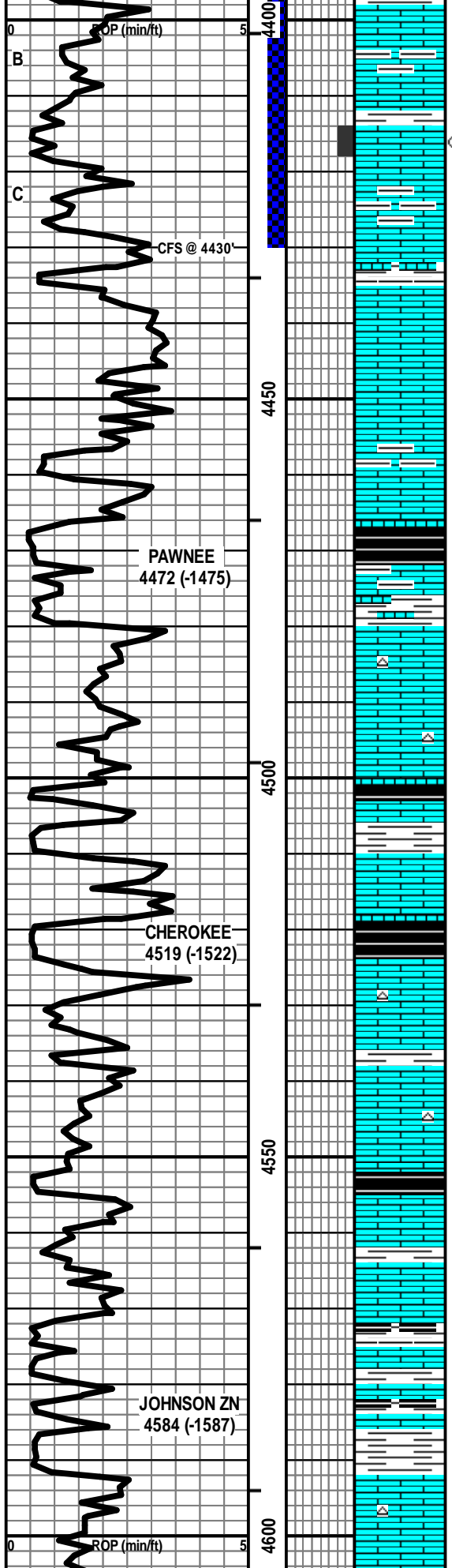
HUSHPUCKNEY-  
4302 (-1305)

CFS @ 4,339'

BASE KC  
4357 (-1360)

MARMATON  
4384 (-1387)  
CFS @ 4388'

PRED SH - GY / SCAT GRN W/ SCAT LS - AS ABOVE



LS - CRM / GY / TAN, VF / F XLN, OOL IN PT, SL FOSS, SUBCHKY IN PT, PRED DNS, NS

LS - CRM / TAN, F / M XLN IN PT, PRED F / VF XLN, SL FOSS + OOL, F / G VUG + PPT POR, P / G INTXLN POR, SL / F SFO + ASPH, TR GB, FT ODOR, SPTY / SAT STN, G FLUOR + CUT W / SH - GY / GRN

LS - TAN / CRM / SCAT GY, VF / F XLN, FOSS IN PT, SCAT OOL, SUBCHKY IN PT, PRED DNS, NS

LS - AS ABOVE, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, SL FOSS, CHKY IN PT, PRED DNS, NS W / SCAT CHT - GY / TAN W / SH - GY / BLK

LS - CRM / TAN / BRN, VF / F XLN, SL FOSS, CHKY IN PT, PRED DNS, NS W / SCAT CHT - GY / TAN

LS - TAN / BRN / SCAT CRM, MOT IN PT, F / VF XLN, FOSS + OOL IN PT, PRED DNS, NS W / SH - GY / BLK + CARB

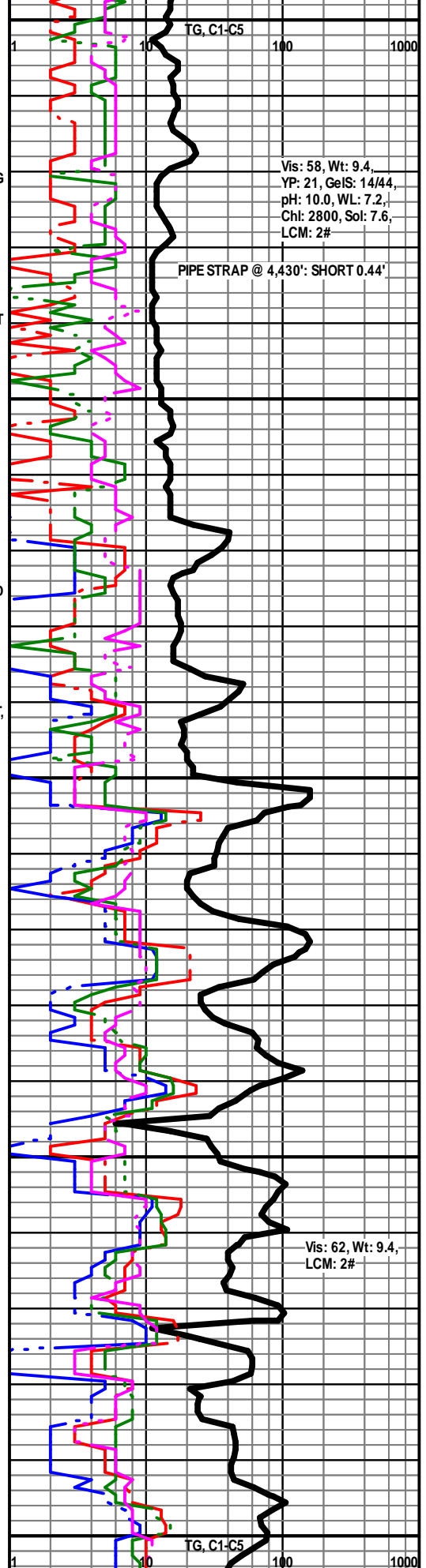
LS - TAN / BRN / CRM, VF / F XLN, OOL + FOSS IN PT, SUBCHKY IN PT, PRED DNS, NS W / CHT - GY

LS - TAN / BRM / SCAT GY + CRM, VF / F XLN, SL FOSS + OOL, SUBCHKY IN PT, PRED DNS, NS W / SCAT CHT - GY / TAN W / SH - BLK

LS - TAN / CRM / BRN / SCAT GY, VF / F XLN, SL FOSS, PRED DNS, NS W / SH - GY / BLK / SCAT GRN

LS - CRM / TAN / BRN, VF / F XLN, OOL IN PT, SL FOSS, SUBCHKY IN PT, PRED DNS, NS W / CHT - GY / TAN

LS - CRM / TAN, VF / F XLN, OOL IN PT, SL FOSS, SCAT

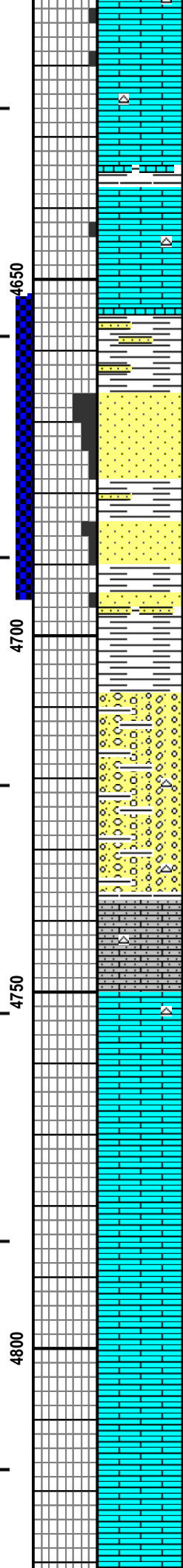
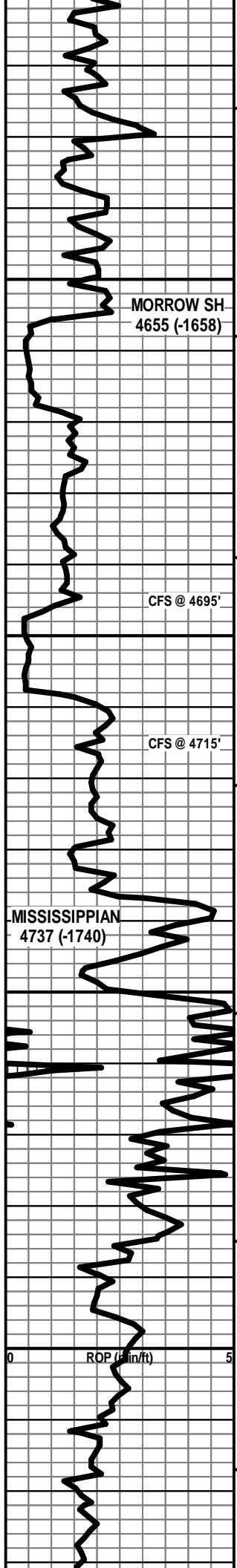


Vis: 58, Wt: 9.4,  
 YP: 21, GeIS: 14/44,  
 pH: 10.0, WL: 7.2,  
 Cht: 2800, Sol: 7.6,  
 LCM: 2#

PIPE STRAP @ 4,430': SHORT 0.44'

Vis: 62, Wt: 9.4,  
 LCM: 2#

DST #2: 4,652'-4,695' (Basal Sand)



P INTXLN POR, CHKY IN PT, PRED DNS, VSSFO + OILY FILM, V FT ODOR, TR SPTY STN, P/F FLUOR, NO/F CUT CUT W/ CHT - GY/ WHT/ TAN

LS - CRM / TAN, VF / F XLN, OOL IN PT, SL FOSS, SCAT P INTXLN POR, CHKY IN PT, PRED DNS, VSSFO, V FT ODOR, SCAT SPTY STN, P/F FLUOR, NO/F CUT CUT W/ CHT - GY/ WHT/ TAN

LS - AS ABOVE W/ SCAT SH - GY/ GRN W/ TR SS - LT GY/ GRN, SLT / VF QTZ GR, W SRTD, P/ NO INTGR POR, SS OILY FILM, NSFO, SCAT SPTY STN

SS - LT GY, PRED VF / F QTZ GR, SCAT M GR, W SRTD, SA / R, SIL CEM, SL / MOD GLAUC + CHL IN PT, F / G INTGR POR, FRI IN PT, F / G SFO, F ODOR, SAT / SPTY STN, G FLUOR + CUT W/ ABNT LS CAVINGS

SS - AS ABOVE W/ SS - LT GY/ GRN, PRED VF QTZ GR, SA / SR, SIL CEM, MOD / ABNT CHL + GLAUC, P / F INTGR POR, SL / F SFO IN PT, F ODOR, SPTY STN IN PT, F / G FLUOR + CUT, MOD AMT VSSFO / BARR W/ SCAT SH - GY/ GRN W/ ABNT LS CAVINGS

ABNT SH - GY/ BLK W/ SS - GY/ WHT, VF QTZ GR, W SRTD, SA / SR, V CHKY IN PT, SCAT GLAUC + CHL, P / NO VIS POR, NS W/ ABNT LS CAVINGS AS ABOVE W/ SCAT SS CAVINGS AS ABOVE

SH - GY/ BLK W/ MOD AMT CHKYSS - AS ABOVE W/ ABNT LS CAVINGS AS ABOVE W/ SCAT CHT - GY/ TAN

SH - GY/ BLK W/ MOD AMT CHKYSS - AS ABOVE W/ ABNT LS CAVINGS AS ABOVE W/ SCAT CHT - GY/ TAN W/ SCAT LS - WHT / CRM, VF XLN, V AREN, OOL IN PT, CHKY / PRED DNS, NS

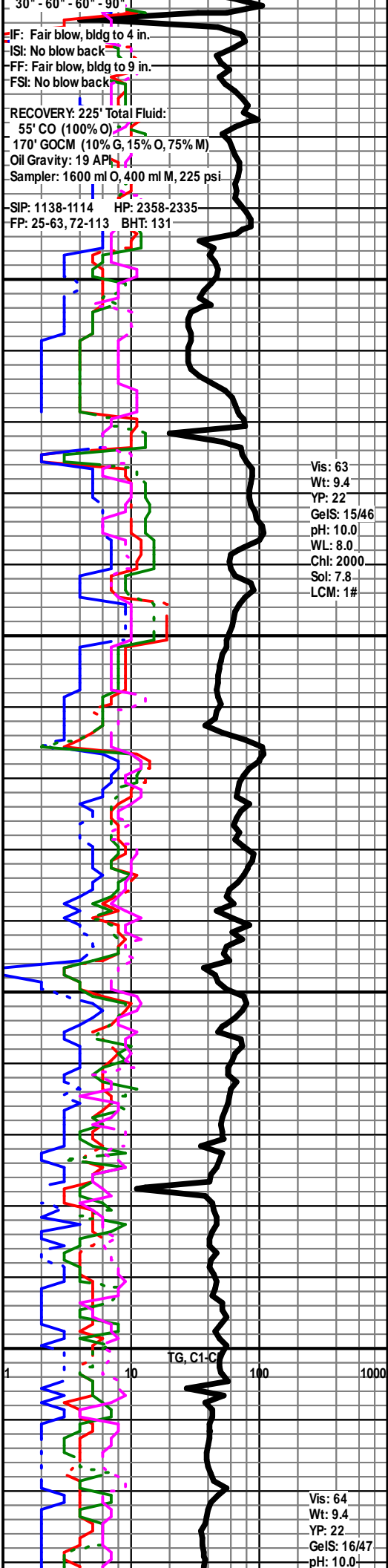
LS - WHT / CRM, VF XLN, V AREN, OOL IN PT, CHKY / PRED DNS, NS W/ SCAT LS - CRM / TAN, VF / F XLN, OOL IN PT, CHKY IN PT, PRED DNS, NS W/ SCAT CHT - GY / TAN W/ ABNT CAVINGS AS ABOVE

LS - CRM / TAN, VF / F XLN, OOL IN PT, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, OOL IN PT, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, SCAT OOL, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, CRYPTO XLN IN PT, SCAT OOL, CHKY IN PT, PRED DNS, NS





LS - CRM / TAN, VF / F XLN, SCAT CRYPTO XLN, OOL IN  
PT, TR P INTPART POR, CHKY IN PT, PRED DNS, NS

WL: 8.0  
Chl: 2300  
Sol: 7.5  
LCM: 1#

TOTAL DEPTH 4840 (-1843)

4850

