

# GEOLOGIC REPORT

## DAVID J. GOLDAK

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

Well Name: Eikelberger #1-21  
Location: Section 21 - T17S - R32W  
License Number: API: 15-171-21175  
Spud Date: 07 / 19 / 2016  
Surface Coordinates: 1773' FSL and 856' FWL  
NW - SE - NW - SW  
Region: Scott Co., KS  
Drilling Completed: 07 / 27 / 2016  
Bottom Hole Coordinates:  
Ground Elevation (ft): 2994' K.B. Elevation (ft): 2999'  
Logged Interval (ft): 3700' To: 4775' Total Depth (ft): 4775'  
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: 12427 W Ridgepoint Cir  
Wichita, Kansas 67235

### General Info

CONTRACTOR: WW Drilling, Rig #10

#### BIT RECORD:

| No. | Size   | Make      | Jets     | Out  | Feet | Hours |
|-----|--------|-----------|----------|------|------|-------|
| 1   | 12-1/4 | Smith-?   | 15-15-15 | 302  | 302  | 3.00  |
| 2   | 7-7/8  | Smith-F27 | 15-15-15 | 4775 | 4473 | 95.75 |

SURVEYS: 302'-1.00, 4028'-1.25, 4775'-1.00

#### GENERAL DRILLING & PUMP INFORMATION:

Drilling with 8 stands of collars (6.25"x2.25"): 486.78'  
Drilling with 38,000 lbs on bit and 80-85 RPM.  
Pumping 60 S/M; 7.74 B/M; 850-900 psi at the standpipe.

## Daily Status

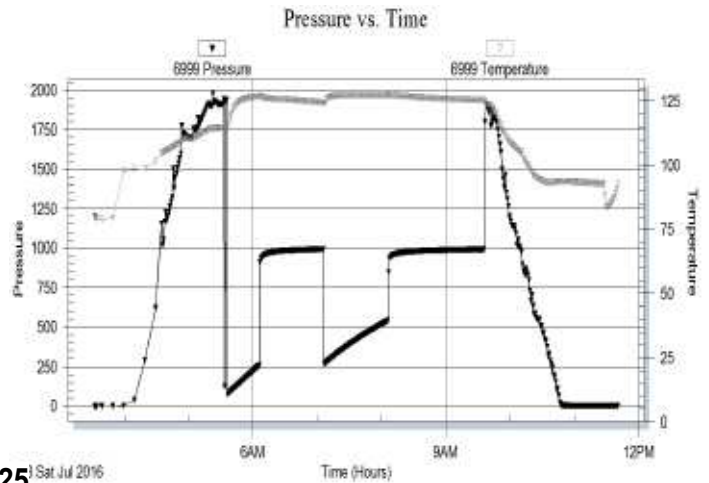
07/19/16 - Spud at 1:00 PM; Set 8-5/8" csg at 302'  
 07/20/16 - 715' Drilling  
 07/21/16 - 2,870' Stuck; Displace mud @ 3,383'  
 07/22/16 - 3,916' Drilling  
 07/23/16 - 4,028' DST #1  
 07/24/16 - 4,218' DST #2  
 07/25/16 - 4,398' DST #3  
 07/26/16 - 4,646' TOH for DST #4  
 07/27/16 - 4,775' Logging

**DST #1: 3,999' - 4,028' (LKC "B")**  
 30" - 60" - 60" - 90"

**IF: Good blow building to BOB in 9 minutes**  
**ISI: No blow back**  
**FF: Good blow building to BOB in 11 minutes**  
**FSI: No blow back**

**RECOVERY: 1,147' Total Fluid, consisting of:**  
 1,147' MW (95% W, 5% M)  
 Chlorides recovery: 25,000 ppm  
 Sampler: 100 ml Mud & 2,400 ml Water @ 100 psi

SIP: 993-992; FP: 71-255, 265-542; HP: 1934-1898; BHT: 125

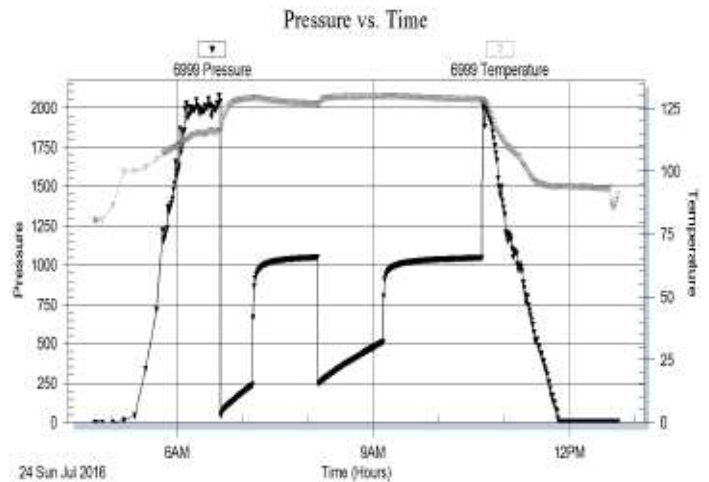


**DST #2: 4,194' - 4,218' (LKC "I")**  
 30" - 60" - 60" - 90"

**IF: Good blow building to BOB in 8.5 minutes**  
**ISI: No blow back**  
**FF: Good blow building to BOB in 11.5 minutes**  
**FSI: No blow back**

**RECOVERY: 1,085' Total Fluid, consisting of:**  
 1,085' SG&MCW (2% G, 95% W, 3% M)  
 Chlorides recovery: 27,000 ppm

SIP: 1048-1045; FP: 41-236, 246-509; HP: 2040-2010; BHT: 128

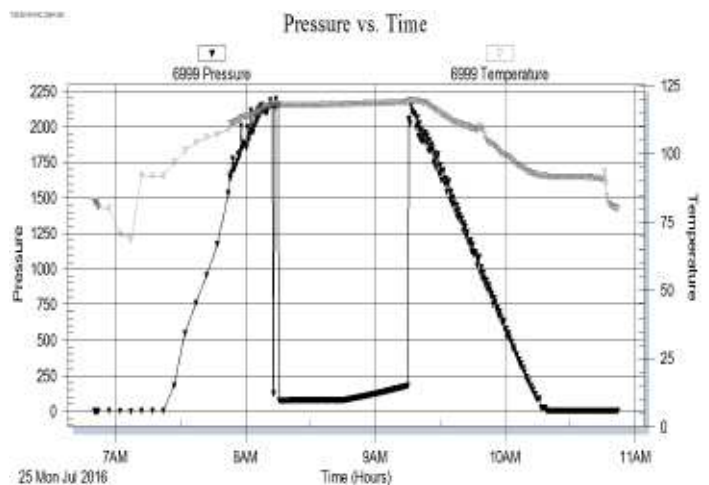


**DST #3: 4,344' - 4,398' (Marmaton)**  
 30" - 30" - 0" - 0"

**IF: No blow**  
**ISI: No blow back**  
**FF: N/A**  
**FSI: N/A**

**RECOVERY: 70' Total Fluid, consisting of:**  
 70' Mud (100% M)  
 Sampler: 2500 ml Mud

SIP: 181; FP: 76-77; HP: 2149-2022; BHT: 118

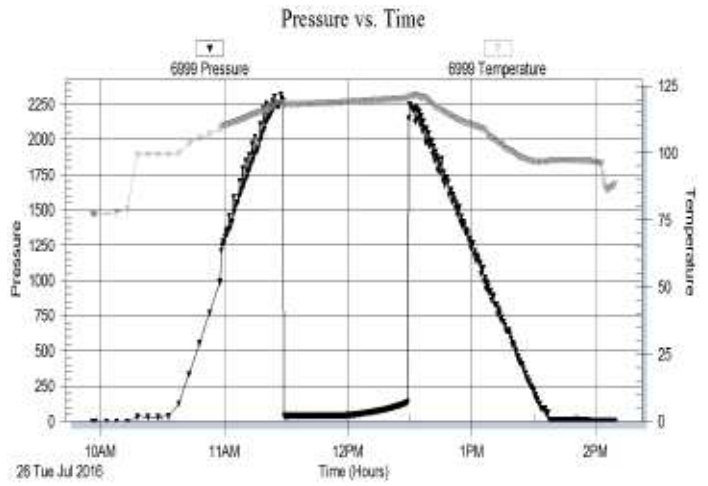


DST #4: 4,590' - 4,646' (Johnson Zn & Basal Sd)  
 30" - 30" - 0" - 0"

IF: 1/4 inch blow; died in 9 minutes  
 ISI: No blow back  
 FF: N/A  
 FSI: N/A

RECOVERY: 10' Total Fluid, consisting of:  
 10' Mud (100% M)  
 Sampler: 2500 ml Mud @ 30 psi

SIP: 134; FP: 36-42; HP: 2277-2247; BHT: 121



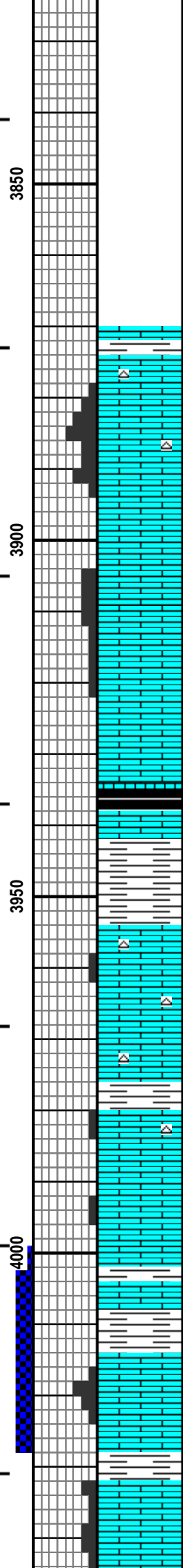
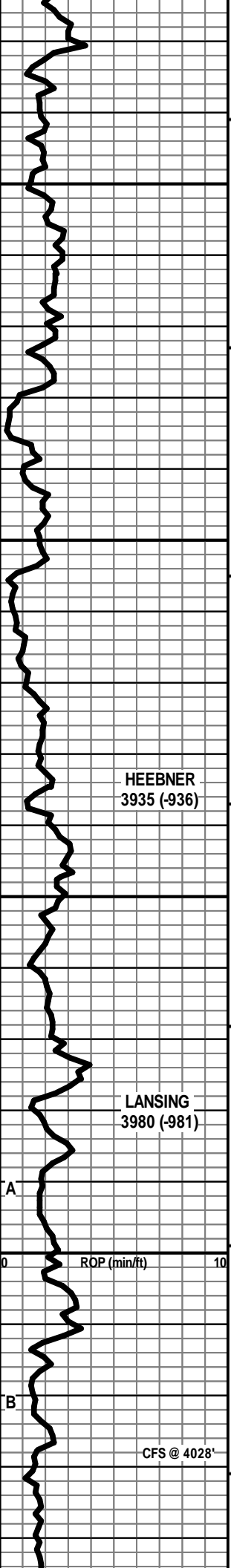
### ROCK TYPES

|  |       |  |       |  |         |  |          |
|--|-------|--|-------|--|---------|--|----------|
|  | Anhy  |  | Gyp   |  | Shgy    |  | Sandylms |
|  | Bent  |  | Igne  |  | Sltst   |  | Shale    |
|  | Brec  |  | Lmst  |  | Ss      |  | Sltstn   |
|  | Cht   |  | Meta  |  | Till    |  | Shlyslts |
|  | Clyst |  | Mrlst |  | Carb sh |  | Sltys h  |
|  | 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    |               | Silty    |                 | Fuss     |                |          |
|                | Chtlt    |               |          |                 | Oomold   |                |          |
|                | Dol      | <b>FOSSIL</b> |          |                 |          | <b>TEXTURE</b> |          |
|                | Feldspar |               | Algae    | <b>STRINGER</b> |          |                | Boundst  |
|                | Ferrpel  |               | Amph     |                 | Anhy     |                | Chalky   |
|                | Ferr     |               | Belm     |                 | Arg      |                | Cryxln   |
|                | Glau     |               | Bioclst  |                 | Bent     |                | Earthy   |
|                | Gyp      |               | Brach    |                 | Coal     |                | Finexln  |
|                | Hvmin    |               | Bryozoa  |                 | Dol      |                | Grainst  |
|                | Kaol     |               | Cephal   |                 | Ls       |                | Lithogr  |
|                | Marl     |               | Coral    |                 | Mrst     |                | Microxln |
|                | Minxl    |               | Crin     |                 | Sltstrg  |                | Mudst    |
|                | Nodule   |               | Echin    |                 | Ssstrg   |                | Packst   |
|                | Phos     |               | Fish     |                 | Carbsh   |                | Wackest  |
|                | Pyr      |               | Foram    |                 |          |                |          |





LS - TAN / GY, VF / F XLN, OOL + FOSS, PRED DNS, NS  
 W/ SCAT CHT - LT GY/ WHT W/ SCAT SH - GY/ BLK W/  
 LS - CRM / TAN, F XLN, FOSS, SL OOL, F / SCAT G  
 INTPART + VUG POR, NS

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

LS - CRM / TAN, VF / F XLN, FOSS IN PT, F INTXLN +  
 VUG POR, CHKY IN PT, NS

HEEBNER  
 3935 (-936)

L - TAN / BRN / GY, MOT IN PT, F / VF XLN, FOSS IN PT,  
 SCAT CHKY, PRED DNS, NS W/ SH - BLK, CARB

LS - SIM TO ABOVE, NS W/ SH - GRN / GY, SLTY IN PT

LANSING  
 3980 (-981)

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

LS - CRM / TAN, F / VF XLN, OOL, P OOM + PPT POR, NS  
 W/ SCAT CHT - LT GY/ WHT, OOL

LS - CRM / TAN, VF / F XLN, SCAT M / C REXLN CALC,  
 SL FOSS, SCAT P INTXLN POR, PRED DNS, TR SPY  
 DEAD STN, NSFO, NO ODOR

LS - TAN / GY, F XLN, OOL IN PT, PRED DNS, NS W/ SH -  
 GY/ BLK

LS - CRM / TAN, F XLN, SCAT M / C REXLN CALC, OOL,  
 P / F VUG + INTPART / INTXLN POR IN PT, SL / F SFO, FT  
 ODOR, PRED SPY / SCAT SUBSAT STN, G FLUOR, F /  
 G CUT W/ SCAT BARR POR

LS - CRM / TAN, F / VF XLN, OOL + FOSS, P / F INTXLN +  
 PPT POR, CHKY IN PT, NS

Vis: 55, Wt: 8.8,  
 LCM: 2#

DST #1: 3999'-4028' (LKC "B")  
 30" - 60" - 60" - 90"

IF: Good blow, BOB in 9 min.  
 ISI: No blow back  
 FF: Good blow, BOB in 11 min.  
 FSI: No blow back

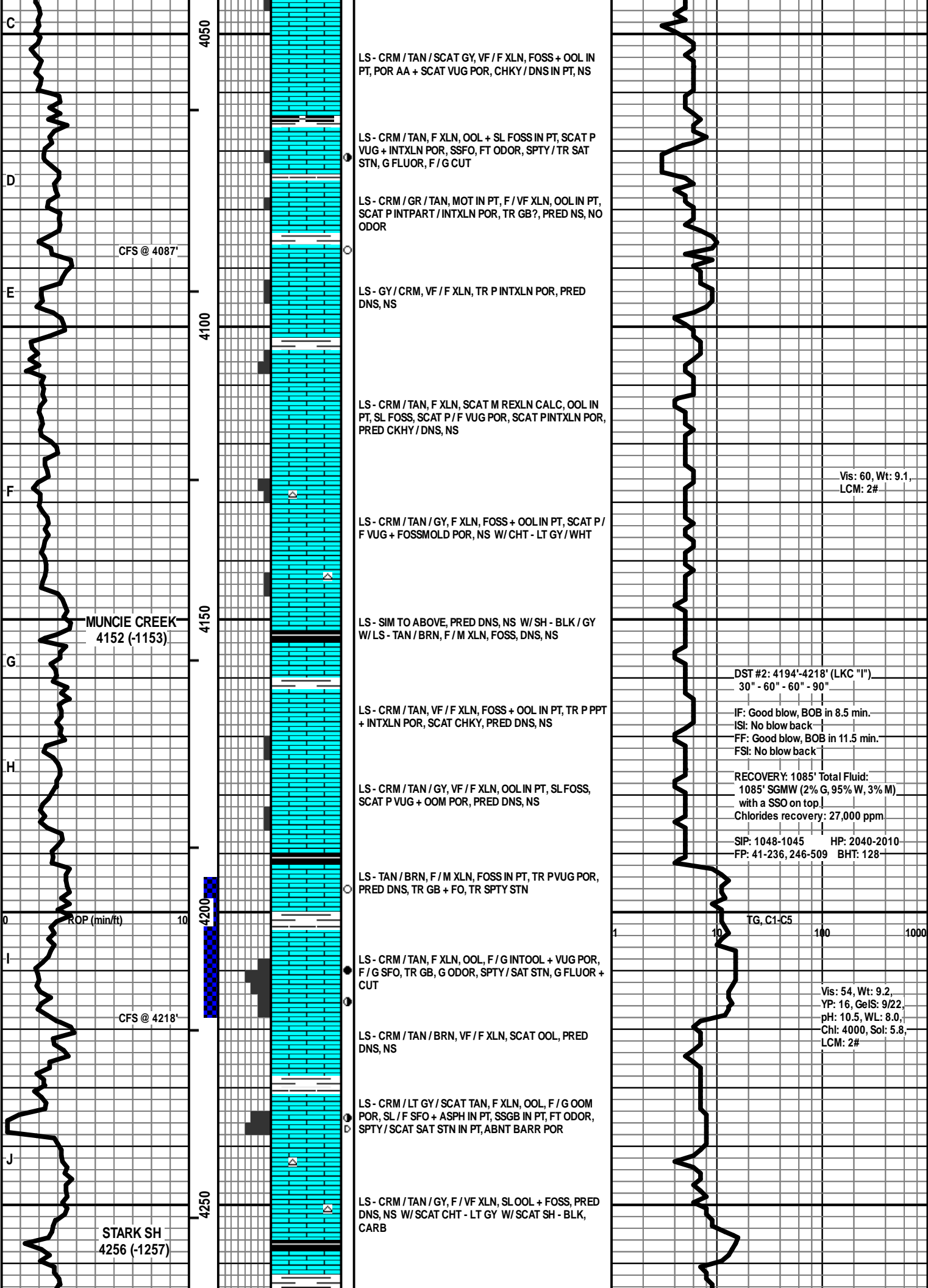
RECOVERY: 1147' Total Fluid:  
 1147' MW (95% W, 5% M)  
 with a SSO throughout  
 Sampler: 100 ml M & 2400 ml W  
 Chlorides recovery: 25,000 ppm

SIP: 993-992 HP: 1934-1898  
 FP: 71-255, 265-542 BHT: 125

TG, C1-C5

PIPE STRAP @ 4028': LONG 0.21'

Vis: 56, Wt: 9.2,  
 YP: 17, GeIS: 8/23,  
 pH: 10.5, WL: 8.8,  
 Chl: 3300, Sol: 5.9,  
 LCM: 2#



C  
D  
E  
F  
G  
H  
I  
J

4050  
4100  
4150  
4200  
4250

CFS @ 4087'

MUNCIE CREEK  
4152 (-1153)

CFS @ 4218'

STARK SH  
4256 (-1257)

LS - CRM / TAN / SCAT GY, VF / F XLN, FOSS + OOL IN PT, POR AA + SCAT VUG POR, CHKY / DNS IN PT, NS

LS - CRM / TAN, F XLN, OOL + SL FOSS IN PT, SCAT P VUG + INTXLN POR, SSFO, FT ODOR, SPTY / TR SAT STN, G FLUOR, F / G CUT

LS - CRM / GR / TAN, MOT IN PT, F / VF XLN, OOL IN PT, SCAT P INTPART / INTXLN POR, TR GB?, PRED NS, NO ODOR

LS - GY / CRM, VF / F XLN, TR P INTXLN POR, PRED DNS, NS

LS - CRM / TAN, F XLN, SCAT M REXLN CALC, OOL IN PT, SL FOSS, SCAT P / F VUG POR, SCAT PINTXLN POR, PRED CKHY / DNS, NS

LS - CRM / TAN / GY, F XLN, FOSS + OOL IN PT, SCAT P / F VUG + FOSSMOLD POR, NS W/ CHT - LT GY / WHT

LS - SIM TO ABOVE, PRED DNS, NS W/ SH - BLK / GY W/ LS - TAN / BRN, F / M XLN, FOSS, DNS, NS

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

LS - CRM / TAN / GY, VF / F XLN, OOL IN PT, SL FOSS, SCAT P VUG + OOM POR, PRED DNS, NS

LS - TAN / BRN, F / M XLN, FOSS IN PT, TR PVUG POR, PRED DNS, TR GB + FO, TR SPTY STN

LS - CRM / TAN, F XLN, OOL, F / G INTOOL + VUG POR, F / G SFO, TR GB, G ODOR, SPTY / SAT STN, G FLUOR + CUT

LS - CRM / TAN / BRN, VF / F XLN, SCAT OOL, PRED DNS, NS

LS - CRM / LT GY / SCAT TAN, F XLN, OOL, F / G OOM POR, SL / F SFO + ASPH IN PT, SSGB IN PT, FT ODOR, SPTY / SCAT SAT STN IN PT, ABNT BARR POR

LS - CRM / TAN / GY, F / VF XLN, SL OOL + FOSS, PRED DNS, NS W/ SCAT CHT - LT GY W/ SCAT SH - BLK, CARB

Vis: 60, Wt: 9.1,  
LCM: 2#

DST #2: 4194'-4218' (LKC "I")  
30" - 60" - 60" - 90"

IF: Good blow, BOB in 8.5 min.  
ISI: No blow back  
FF: Good blow, BOB in 11.5 min.  
FSI: No blow back

RECOVERY: 1085' Total Fluid:  
1085' SGMW (2% G, 95% W, 3% M)  
with a SSO on top  
Chlorides recovery: 27,000 ppm

SIP: 1048-1045      HP: 2040-2010  
FP: 41-236, 246-509      BHT: 128

TG, C1-C5

Vis: 54, Wt: 9.2,  
YP: 16, GeIS: 9/22,  
pH: 10.5, WL: 8.0,  
Cht: 4000, Sol: 5.8,  
LCM: 2#

ROP (min/ft)

10

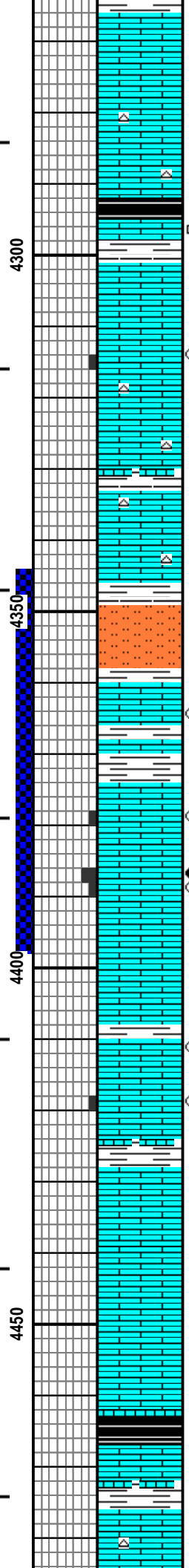
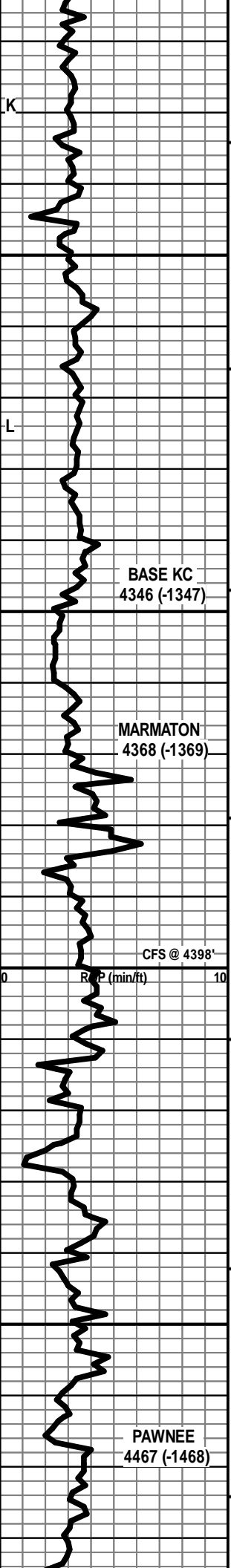
0

1

10

100

1000



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

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

SH - GY / BLK, CARB W/LS - CRM / TAN, F XLN, ABNT FRAC, PRED DNS, SCAT DEAD OIL + TR GB IN FRAC, NSFO, V FT ODOR, SCAT BLK STN

LS - TAN / GY, F / VF XLN, TR FOSS, PRED DNS, NS

LS - CRM / LT GY, MOT, F XLN, OOL, P INTOOL POR, SSFO + GB, V FT ODOR, SPTY STN, F / G FLUOR + CUT W/ABNT LS - AS ABOVE, NS

LS - CRM / TAN, VF / F XLN, SL FOSS, DNS / SUBCHKY, NS W/CHT - LT GY / WHT

LS - CRM / TAN / SCAT GY, MOT IN PT, F / VF XLN, SL FOSS + OOL, DNS / SUBCHKY, NS W/CHT - LT GY / WHT

SLTST + SH - GY / GRN

LS - TAN / CRM / SCAT BRN, F / SCAT M XLN, OOL + FOSS IN PT, SCAT PINTPART / INTXLN POR, SSFO, V FT ODOR, SCAT SPTY STN W/MOD AMT CAVINGS

CRM / TAN, F XLN, OOL IN PT, FEW PCS P / F INTXLN POR, SUBCHKY IN PT, SL / F SFO + GB, FT ODOR, SPTY / SAT STN, F / G FLUOR, G CUT

LS - CRM / TAN, F XLN, OOL, P / F INTOOL POR, TR VUG POR, SL / G SFO, SSG, FT ODOR, SPTY / SAT STN, F / G FLUOR, G CUT W/LS - CRM / GY / TAN, VF / F XLN, SL OOL, SUBCHKY IN PT / PRED DNS, NS

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

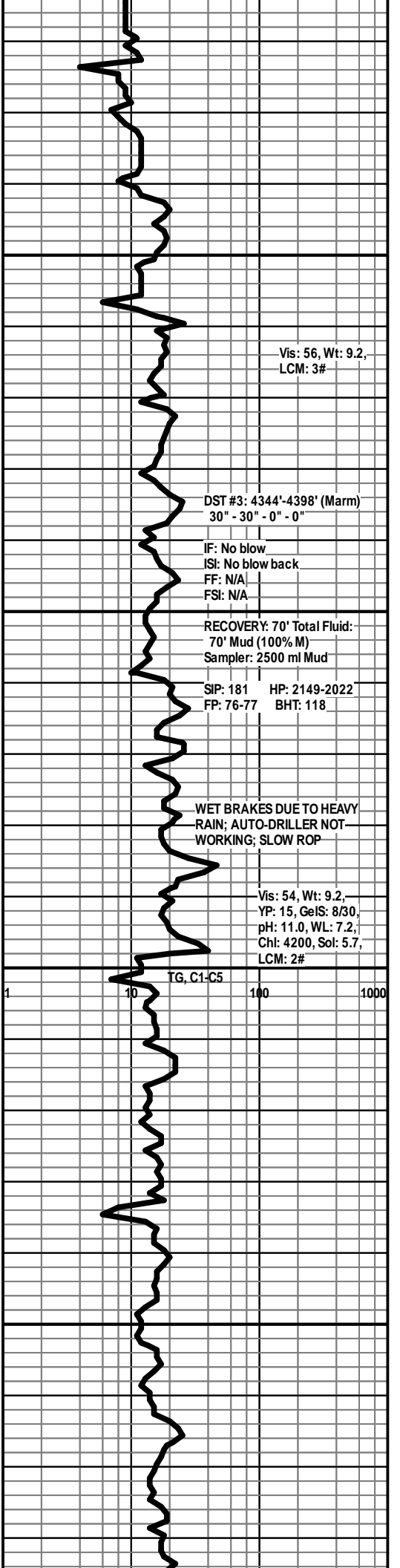
LS - CRM / TAN, F / VF XLN, SL OOL, TR PINTXLN POR, PRED DNS, SSFO, V FT ODOR, TR SPTY STN

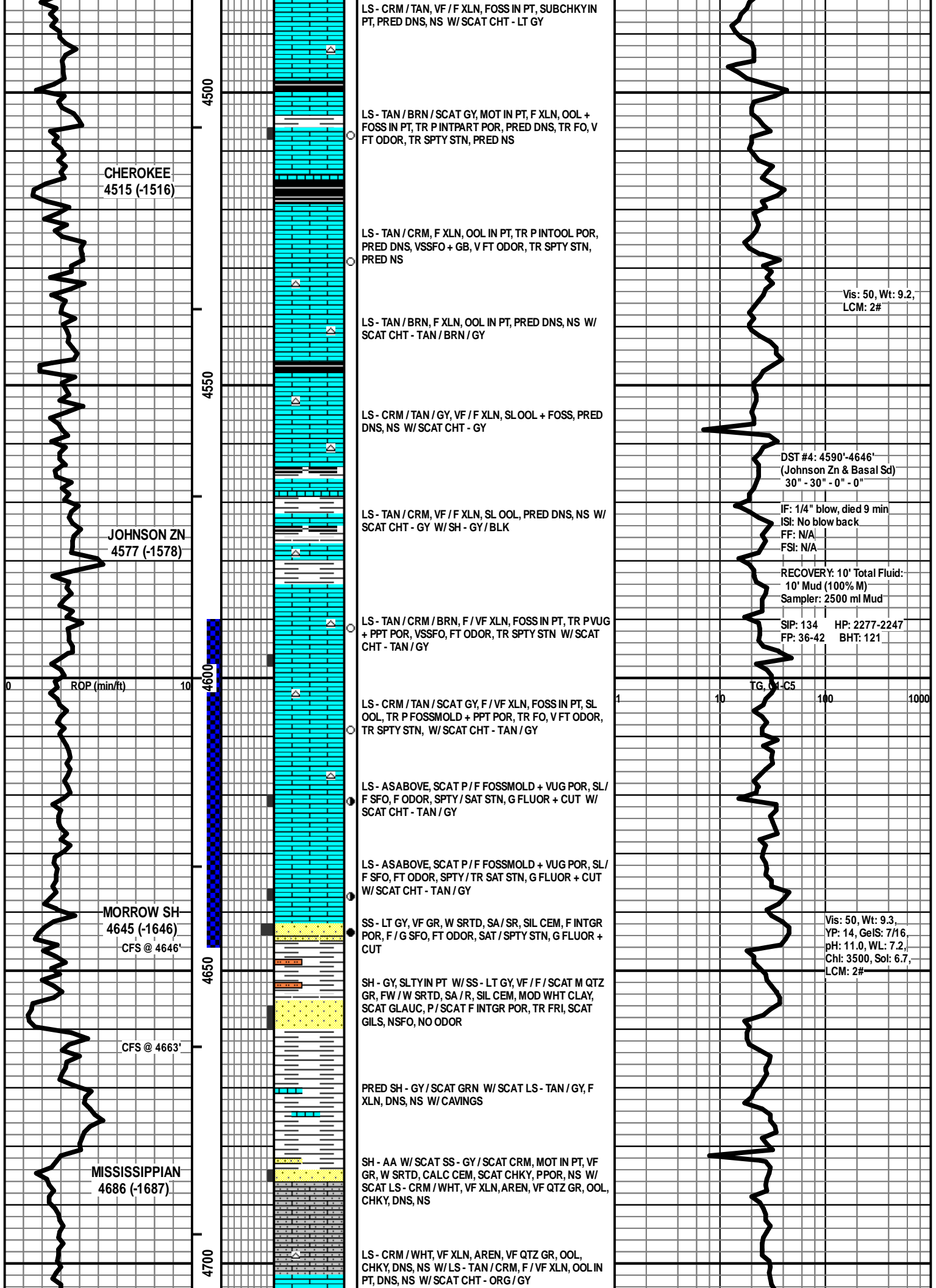
LS - CRM / TAN, F / VF XLN, SL FOSS + OOL, TR PINTXLN + VUG POR, PRED DNS, TR FO, NO ODOR, TR SPTY STN

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

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

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





**CHEROKEE**  
4515 (-1516)

LS - CRM / TAN, VF / F XLN, FOSS IN PT, SUBCHKYIN PT, PRED DNS, NS W/ SCAT CHT - LT GY

LS - TAN / BRN / SCAT GY, MOT IN PT, F XLN, OOL + FOSS IN PT, TR PINTPART POR, PRED DNS, TR FO, V FT ODOR, TR SPTY STN, PRED NS

LS - TAN / CRM, F XLN, OOL IN PT, TR P INTOOL POR, PRED DNS, VSSFO + GB, V FT ODOR, TR SPTY STN, PRED NS

LS - TAN / BRN, F XLN, OOL IN PT, PRED DNS, NS W/ SCAT CHT - TAN / BRN / GY

Vis: 50, Wt: 9.2,  
LCM: 2#

**JOHNSON ZN**  
4577 (-1578)

LS - CRM / TAN / GY, VF / F XLN, SL OOL + FOSS, PRED DNS, NS W/ SCAT CHT - GY

LS - TAN / CRM, VF / F XLN, SL OOL, PRED DNS, NS W/ SCAT CHT - GY W/ SH - GY / BLK

LS - TAN / CRM / BRN, F / VF XLN, FOSS IN PT, TR PVUG + PPT POR, VSSFO, FT ODOR, TR SPTY STN W/ SCAT CHT - TAN / GY

DST #4: 4590'-4646'  
(Johnson Zn & Basal Sd)  
30" - 30" - 0" - 0"

IF: 1/4" blow, died 9 min  
ISI: No blow back  
FF: N/A  
FSI: N/A

RECOVERY: 10' Total Fluid:  
10' Mud (100% M)  
Sampler: 2500 ml Mud

SIP: 134 HP: 2277-2247  
FP: 36-42 BHT: 121

ROP (min/ft)

TG, L-C5

**MORROW SH**  
4645 (-1646)  
CFS @ 4646'

LS - CRM / TAN / SCAT GY, F / VF XLN, FOSS IN PT, SL OOL, TR P FOSSMOLD + PPT POR, TR FO, V FT ODOR, TR SPTY STN, W/ SCAT CHT - TAN / GY

LS - AS ABOVE, SCAT P / F FOSSMOLD + VUG POR, SL / F SFO, F ODOR, SPTY / SAT STN, G FLUOR + CUT W/ SCAT CHT - TAN / GY

LS - AS ABOVE, SCAT P / F FOSSMOLD + VUG POR, SL / F SFO, FT ODOR, SPTY / TR SAT STN, G FLUOR + CUT W/ SCAT CHT - TAN / GY

SS - LT GY, VF GR, W SRTD, SA / SR, SIL CEM, F INTGR POR, F / G SFO, FT ODOR, SAT / SPTY STN, G FLUOR + CUT

Vis: 50, Wt: 9.3,  
YP: 14, GeIS: 7/16,  
pH: 11.0, WL: 7.2,  
Chl: 3500, Sol: 6.7,  
LCM: 2#

CFS @ 4663'

SH - GY, SLTY IN PT W/ SS - LT GY, VF / F / SCAT M QTZ GR, FW / W SRTD, SA / R, SIL CEM, MOD WHT CLAY, SCAT GLAUC, P / SCAT F INTGR POR, TR FRI, SCAT GILS, NSFO, NO ODOR

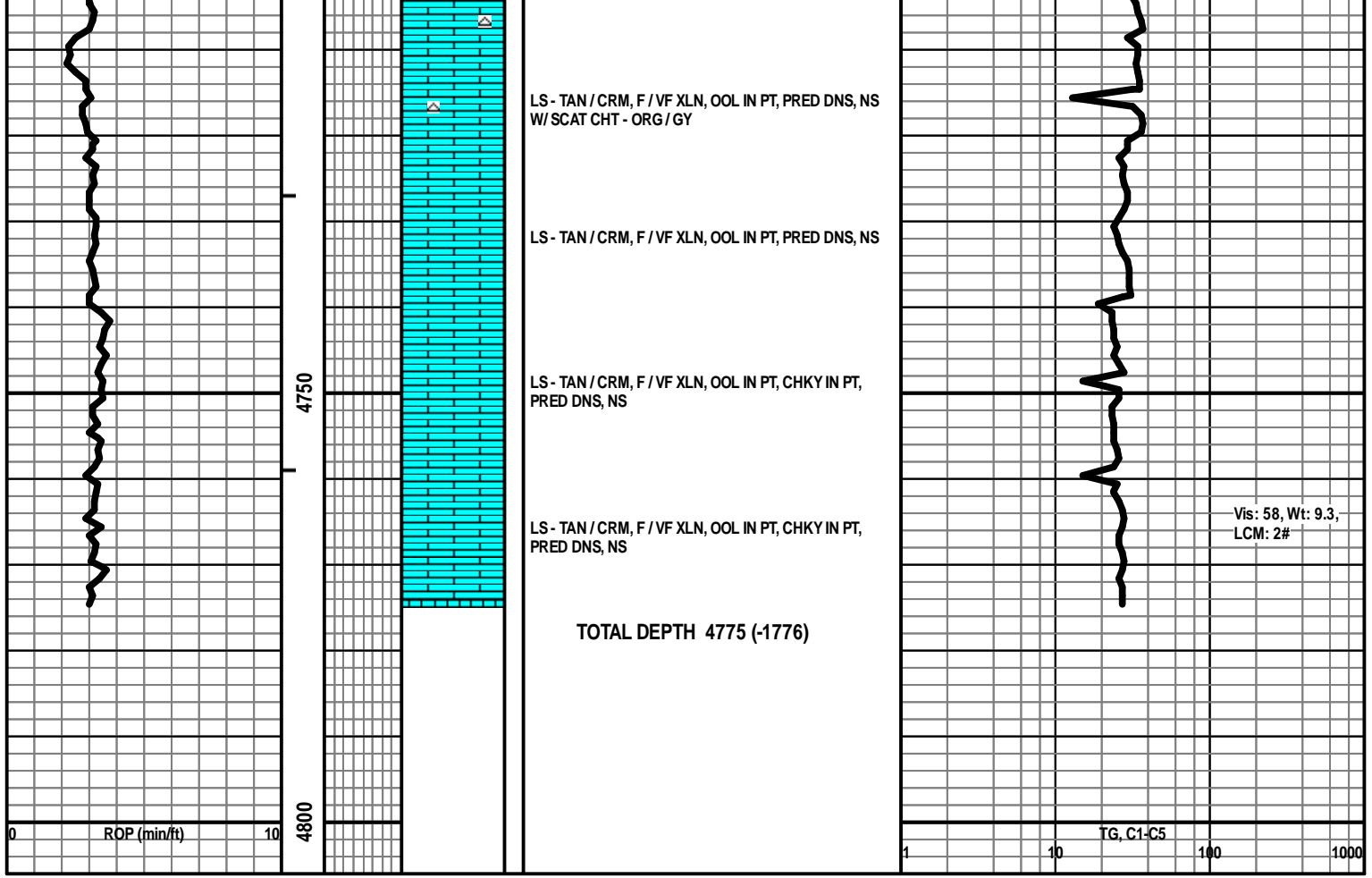
PRED SH - GY / SCAT GRN W/ SCAT LS - TAN / GY, F XLN, DNS, NS W/ CAVINGS

**MISSISSIPPIAN**  
4686 (-1687)

SH - AA W/ SCAT SS - GY / SCAT CRM, MOT IN PT, VF GR, W SRTD, CALC CEM, SCAT CHKY, PPOR, NS W/ SCAT LS - CRM / WHT, VF XLN, AREN, VF QTZ GR, OOL, CHKY, DNS, NS

LS - CRM / WHT, VF XLN, AREN, VF QTZ GR, OOL, CHKY, DNS, NS W/ LS - TAN / CRM, F / VF XLN, OOL IN PT, DNS, NS W/ SCAT CHT - ORG / GY





LS - TAN / CRM, F / VF XLN, OOL IN PT, PRED DNS, NS  
W/ SCAT CHT - ORG / GY

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

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

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

**TOTAL DEPTH 4775 (-1776)**

Vis: 58, Wt: 9.3,  
LCM: 2#

0 ROP (min/ft) 10

4800

4750

1 10 TG, C1-C5 100 1000