

GEOLOGIC REPORT

DAVID J. GOLDAK

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

Well Name: Sutton #2
Location: Section 8 - T18S - R24W
License Number: API: 15-135-25909
Spud Date: 05 / 21 / 2016
Surface Coordinates: 1650' FSL and 920' FWL
Approx. SE - NW - SW
Region: Ness Co., KS
Drilling Completed: 05 / 27 / 2016
Bottom Hole Coordinates:
Ground Elevation (ft): 2324' K.B. Elevation (ft): 2332'
Logged Interval (ft): 3500' To: 4420' Total Depth (ft): 4420'
Formation: Mississippian
Type of Drilling Fluid: Chemical - Mud Co

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

OPERATOR

Company: Stewart Producers, Inc.
Address: PO Box 546
Mt Vernon, IL 62864

GEOLOGIST

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

General Info

CONTRACTOR: WW Drilling, Rig #12

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	Smith-?	4-15s	233	233	3.00
2	7-7/8	Smith-F12	14-14-15	4017	3784	67.75
3	7-7/8	Smith-F27	14-14-15	4420	403	23.00

SURVEYS: 233'-0.75, 4017'-0.75, 4420'-0.75

GENERAL DRILLING & PUMP INFORMATION:

Drilling with 33,000-35,000 lbs on bit and 70-80 RPM.
Running 6.5 stands of collars (6.25"x2.25"): 395.04'
Pumping 60 S/M; 7.74 B/M; and 800 psi at the Standpipe.

Daily Status

05/21/16 - Spud at 7:15 AM; Set 8-5/8" Csg at 232'
 05/22/16 - 1,420' Drilling
 05/23/16 - 2,915' Drilling; Displace at 3,538'
 05/24/16 - 3,766' Drilling; Bit trip at 4,017'
 05/25/16 - 4,065' Drilling
 05/26/16 - 4,347' TOH for DST #1; DST #2 in PM
 05/27/16 - 4,420' CFS; TOH for logging

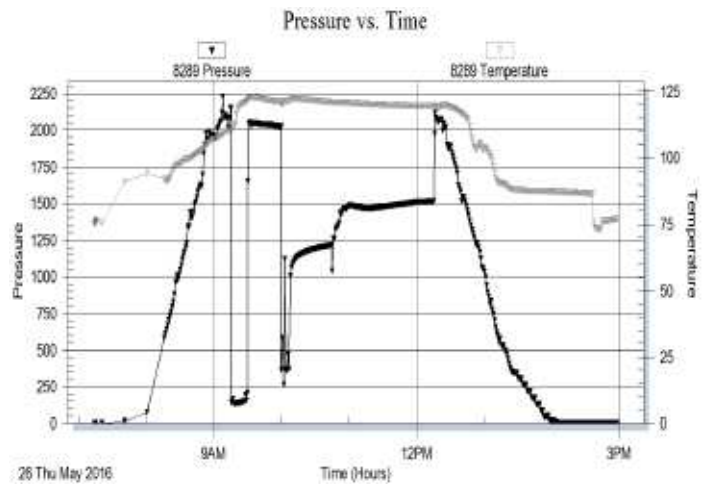
	Log Tops	Sample Tops
Anhydrite	1608 (+724)	
Base/Anhy	1643 (+689)	1650 (+682)
Heebner	3683 (-1351)	3686 (-1354)
Lansing	3726 (-1394)	3728 (-1396)
Stark Sh	4008 (-1676)	4004 (-1672)
BKC	4062 (-1730)	4058 (-1726)
Pawnee	4151 (-1819)	4146 (-1814)
Ft Scott	4229 (-1897)	4230 (-1898)
Cherokee	4254 (-1922)	4256 (-1924)
Mississippian	4326 (-1994)	4333 (-2001)
Total Depth	4420 (-2088)	4420 (-2088)

DST #1: 4,307' - 4,347' (Mississippian) MIS-RUN
15" - 30" - 45" - 90"

IF: Good blow building to BOB in 3 minutes
ISI: Weak blow building to 2 inches
FF: Building to BOB in 1-1/2 minutes, then decreasing
FSI: No blow back

RECOVERY: 250' GIP & 750' Total Fluid:
 45' CO (100% O); Gravity: 35 API
 267' MCO (75% O & 25% M)
 438' OSM (1% O & 99% M)

FP: 139-208, 366-1217 (FFP plugged, creating SIP)
 All other pressures invalid
 Mis-run due to plugging and leaking around packers

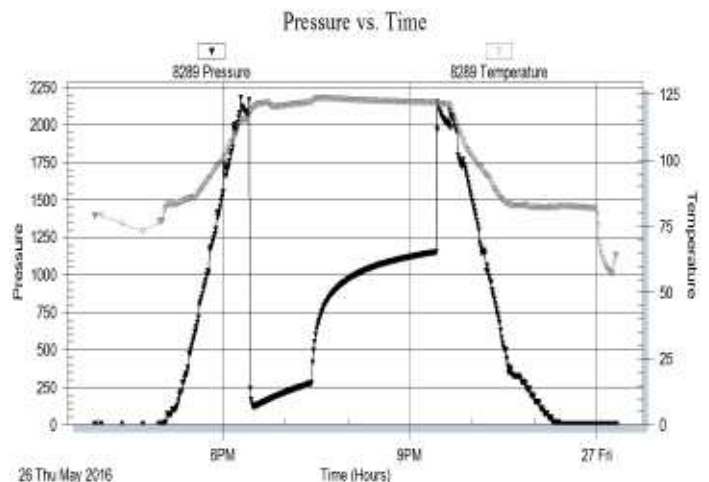


DST #2: 4,292' - 4,347' (Mississippian)
60" - 120" - 0" - 0"

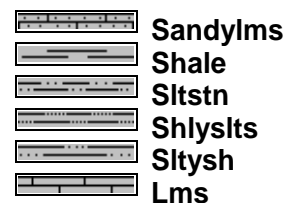
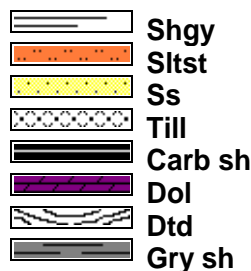
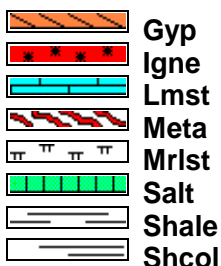
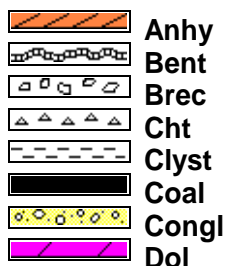
IF: Good blow building to BOB in 3-1/2 minutes
ISI: Surface blow, died in 12 minutes

RECOVERY: 170' GIP & 770' Total Fluid:
 713' GCO (10% G & 90% O); Gravity: 35 API
 62' GOSM (10% G, 2% O & 88% M)

SIP: 1153; **FP:** 137-279; **HP:** 2161-2149; **BHT:** 122



ROCK TYPES

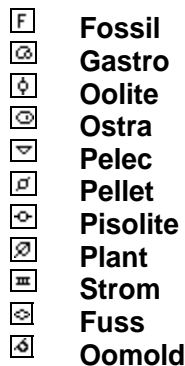
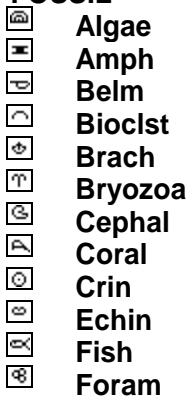


ACCESSORIES

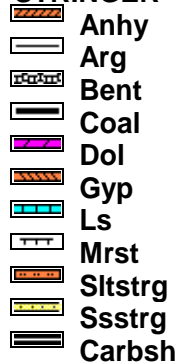
MINERAL



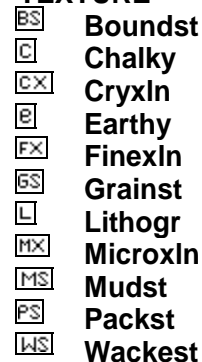
FOSSIL



STRINGER

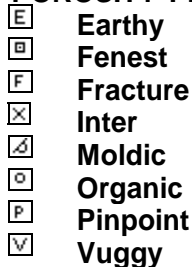


TEXTURE



OTHER SYMBOLS

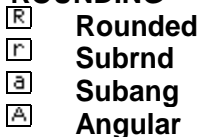
POROSITY TYPE



SORTING



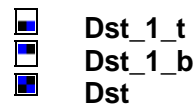
ROUNDING



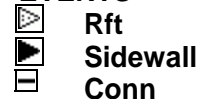
OIL SHOWS


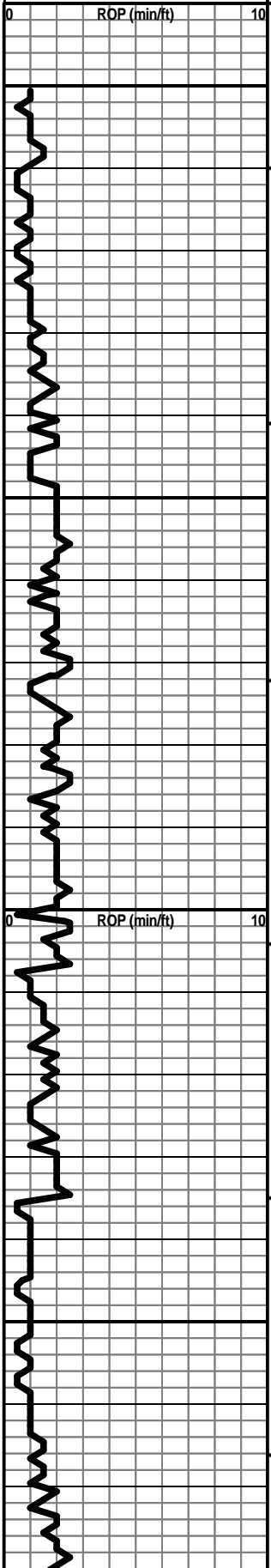


INTERVALS



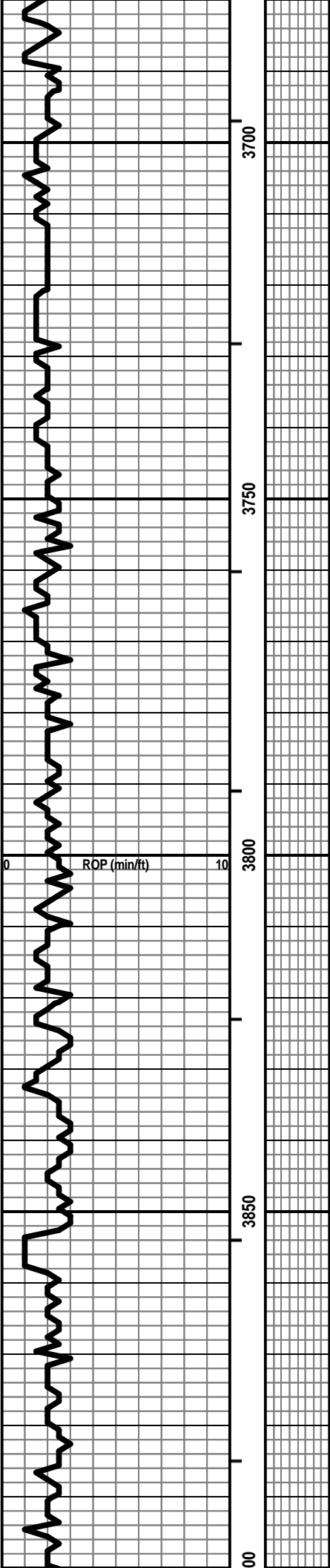
EVENTS



<p>Curve Track 1</p> <p>ROP (min/ft) </p>	<p>Depth</p>	<p>Porosity</p>	<p>Lithology</p>	<p>Geological Descriptions</p>	<p>Remarks</p>
	<p>24%</p> <p>18%</p> <p>12%</p> <p>6%</p> <p>3500</p> <p>3550</p> <p>3600</p> <p>3650</p>	<p>Oil Shows</p>		<p>DRLG WITH BIT #2: 7-7/8" CONV NEW SMITH-F12; JETS: 14-14-15</p> <p>DISPLACE MUD SYSTEM @ 3,538'</p> <p>Vis: 50, Wt: 8.9, LCM: 2#</p>	

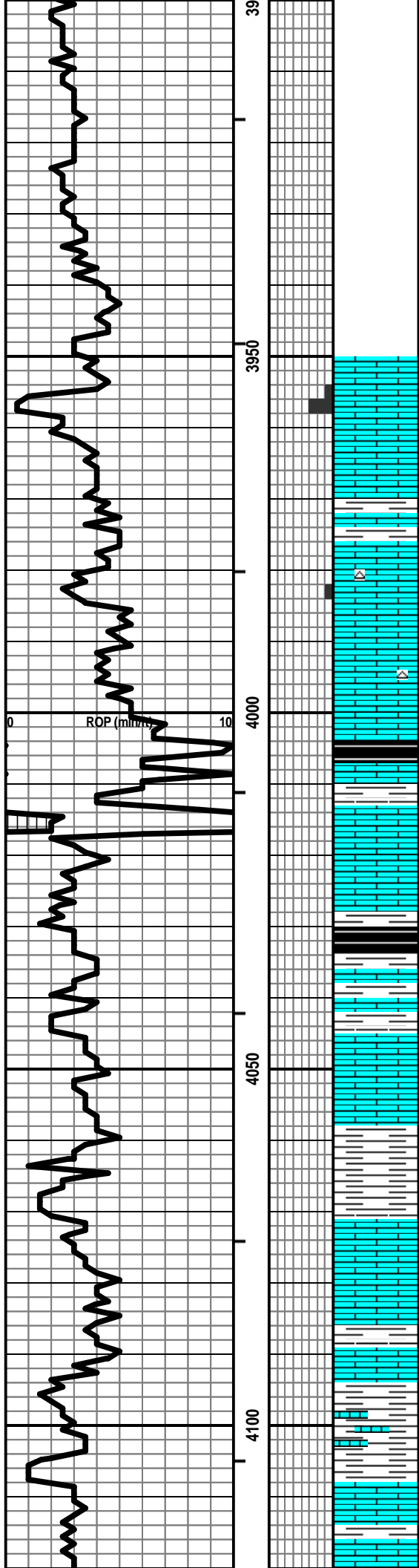
HEEBNER 3686 (-1354)

LANSING 3728 (-1396)



Vis: 45, Wt: 9.0, YP: 12,
GelS: 8/26, pH: 10.5, WL: 8.0,
Chl: 4,200, Sol: 4.8, LCM: 1#

Vis: 54, Wt: 8.9, LCM: 4#



LS - CRM / TAN, F / VF XLN, OOL, F / G OOM POR, F INTXLN
POR, SCAT CHKY, NS

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

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

LS - TAN / CRM, VF XLN, FOSS + OOL IN PT, CHKY IN PT,
PRED DNS, NS W/ SCAT CHT - LT GY / WHT W/ SCAT SH -
GY / BLK

V POOR SAMPLES

LS - CRM / TAN, VF / F XLN, OOL + FOSS IN PT, VP / NO VIS
POR, NS W/ SCAT CHT - LT GY / WHT

SH - GY / BLK W/ LS - AS ABOVE

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

SH - GY / GRN / BRN / RED

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

LS - CRM / GY / WHT, VF / F XLN, SCAT CRYPTO XLN, SL
FOSS IN PT, PRED DNS, NS W/ ABNT SH - GY / DK GY

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

STARK SHALE 4004 (-1672)

VERY HEAVY RAIN - SEVERAL INCHES OF WATER
ON PITS

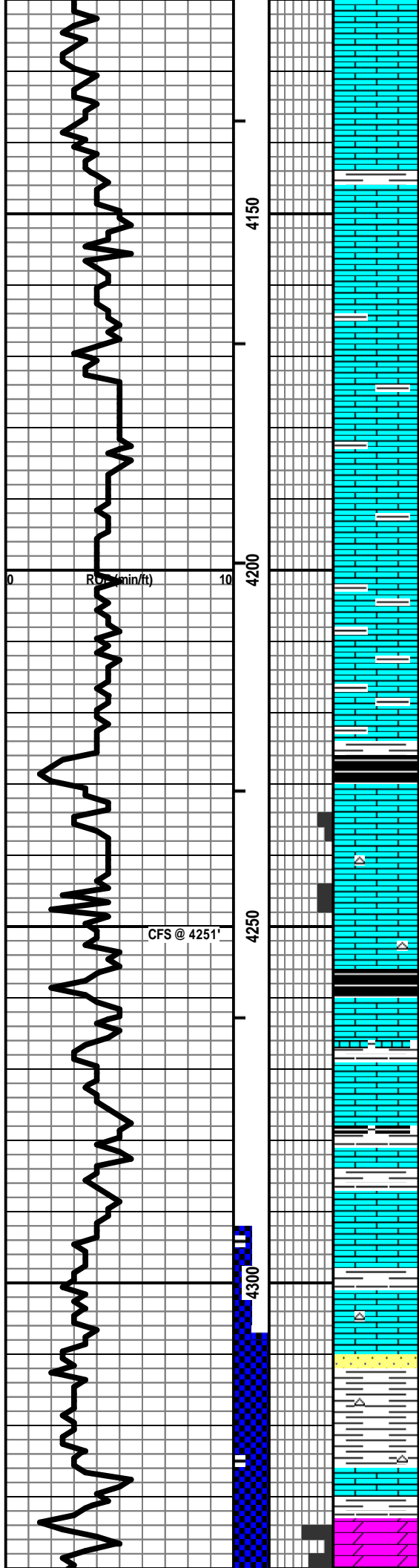
BIT TRIP AT 4017'

DRLG WITH BIT #3: 7-7/8" CONV USED
SMITH-F27; JETS: 14-14-15

Vis: 40, Wt: 9.0, LCM: 2#

BASE OF KC 4058 (-1726)

Vis: 49, Wt: 9.1, YP: 11,
GelS: 8/28, pH: 10.5, WL: 8.8,
Chl: 5.500, Sol: 5.4, LCM: Tr



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

PAWNEE 4146 (-1814)

LS - TAN / BRN / CRM, VF / F XLN, TR M REXLN CALC, MOD CHKY, PRED DNS, NS

LS - TAN / GY / BRN, VF / SCAT F XLN, SUBCHKY IN PT, ARGIL IN PT, PRED DNS, NS

Vis: 48, Wt: 9.1, LCM: 0.5#

LS - BRN / GY / SCAT TAN, VF / SCAT F XLN, SUBCHKY IN PT, ARGIL IN PT, PRED DNS, NS

LS - BRN / GY, VF / SCAT F XLN, SUBCHKY IN PT, ARGIL IN PT, PRED DNS, NS W/ ABNT SH - GY / BLK

FT SCOTT 4230 (-1898)

LS - CRM / TAN, F XLN, FOSS, SL OOL, F VUG + INTXLN POR IN PT (FAIR %), F / G SFO + GB, F ODOR, SPTYLT BRN STN, G FLUOR + CUT

Vis: 55, Wt: 9.1+, LCM: 2#

LS - CRM / TAN, F XLN, FOSS, SL OOL, F / G VUG + P / G INTXLN POR IN PT (SMALL %), F / G SFO + GB, G ODOR, SPTYLT BRN STN, G FLUOR + CUT W/ SCAT CHT - LT GY

CHEROKEE SH 4256 (-1924)

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

DST #1: 4,307' - 4,347' (Mississippian)
15" - 30" - 45" - 90" MIS-RUN

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

IF: Good blow, BOB in 3 min.
ISI: Weak blow building to 2 in.
FF: BOB in 1-1/2 min, the decreasing
FSI: No blow back

LS - CRM / TAN / BRN, MOT IN PT, F / VF XLN, SCAT CRYPTO XLN, SCAT CHKY, PRED DNS, NS W/ SH - GY / GRN

RECOVERY: 250' GIP & 750' Total Fluid:
45' CO (100% O)
267' MCO (75% O & 25% M)
438' OSM (1% O & 99% M)
Oil Gravity: 35 API

LS - CRM / TAN / SCAT BRN, F / VF XLN, SCAT CHKY, PRED DNS, NS W/ SCAT CHT - LT GY

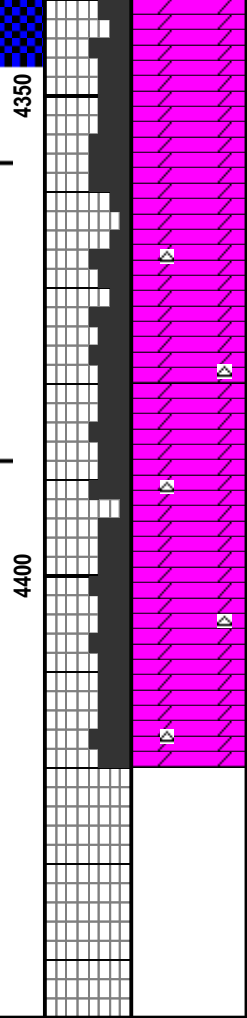
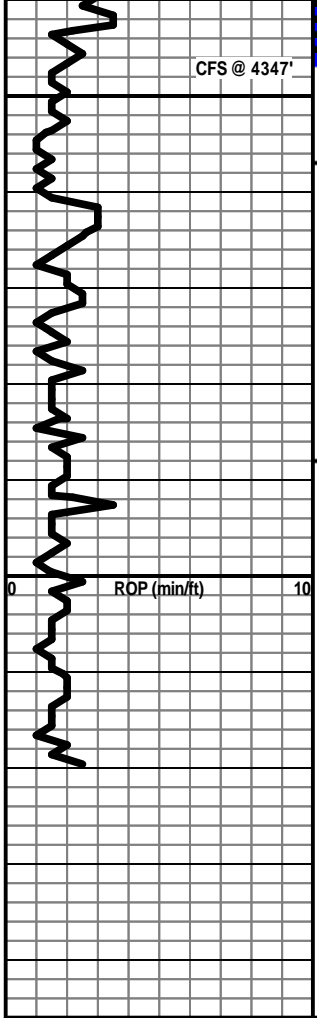
FP: 139-208, 366-1217
(FFP plugged off, creating SIP)
All other pressures invalid.

LS - V SIM TO ABOVE, PRED DNS, NS W/ SH - GY / GRN, TR SLTY W/ SCAT CHT - GY W/ SCAT SS CLSTRS - GY, F GR, SIL CEM, V WELL CEM / CHTY, NO VIS POR, SL / F SFO + GLS, BLK STN

Mis-run due to plugging and leaking around packers.

DOLO - LT GY / CRM, F / SCAT M XLN, P / G VUG + INTXLN POR, F / G SFO, G ODOR, SAT / SPTY STN, G FLUOR + CUT

MISSISSIPPIAN 4333 (-2001)



DOLO - LT GY / CRM, F / SCAT M XLN, F / G VUG + INTXLN
 POR, F / G SFO, G ODOR, PRED SAT STN, G FLUOR + CUT

DOLO - LT GY / CRM, F / SCAT M XLN, F / G VUG + INTXLN
 POR, F / G SFO IN PT, PSFO IN PT / TR BARR, G ODOR, PRED
 SPTY / SAT STN

DOLO - LT GY / CRM, F / SCAT M XLN, F / G VUG + INTXLN
 POR, SL / F SFO, BARR IN PT, F / FT ODOR, SPTY / NO STN
 W / SCAT CHT - LT GY / WHT

DOLO - LT GY / CRM, F / SCAT M XLN, F / G VUG + INTXLN
 POR, SSFO IN PT, PRED BARR, FT / NO ODOR, PRED NO STN
 W / SCAT CHT - LT GY / WHT

DOLO - LT GY / CRM, F / SCAT M XLN, F / G VUG + INTXLN
 POR, PRED NS, NO ODOR W / SCAT CHT - LT GY / WHT

Vis: 51, Wt: 9.3, YP: 12,
 GelS: 8/30, pH: 9.0, WL: 8.4,
 Chl: 5,500, Sol: 6.8, LCM: 1#

PIPE STRAP @ 4347': SHORT 0.21'

DST #2: 4,292' - 4,347' (Mississippian)
 60" - 120" - 0" - 0"

IF: Good blow, BOB in 3-1/2 min.
 ISI: Surface blow, died in 12 min.

RECOVERY: 170' GIP & 770' Total Fluid:
 713' GCO (10% G & 90% O)
 62' GOSM (10% G, 2% O & 88% M)
 Oil Gravity: 35 API

SIP: 1153 HP: 2161-2149
 FP: 137-279 BHT: 122

Vis: 50, Wt: 9.2, YP: 12,
 GelS: 8/36, pH: 10.0, WL: 8.8,
 Chl: 6,000, Sol: 6.1, LCM: 1#

TOTAL DEPTH 4420 (-2088)