

Geologic Report
Aaron L. Young

Drilling Time and Sample Log

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

Well Name: Starrett "B" #4
API: 15-135-25854
Location: Section 12 - T17S - R21W
License Number: 5123
Spud Date: 3/3/ 2015
Surface Coordinates: 2310' FNL and 1320' FEL
Approx. S2 - S2 - NE
Region: Ness Co., KS
Drilling Completed: 3/10/15

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2164' **K.B. Elevation (ft):** 2171'
Logged Interval (ft): 3300' **To:** 4140' **Total Depth (ft):** 4140'
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: Pickrell Drilling Company, Inc.
Address: 100 S Main Ste 505
Wichita, KS 67202+3738

GEOLOGIST

Name: Aaron L. Young, M.S.
Company: Pickrell Drilling Company, Inc.
Address: 100 S Main, Suite 505
Wichita, Kansas 67202

General Info

CONTRACTOR: Pickrell Drilling, Rig #10

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	JZ RR	15-15-15	409	403	3.50
2	7-7/8	HA20JQ	15-15-15	4066	3663	107.25
3	7-7/8	537GLY	15-15-15	4140	74	4.5

SURVEYS: 217'-1, 409'-.75, 1171'-1, 1608'-1, 2108'-1, 2608'-1, 4066'-.1, 4140'-.75

GENERAL DRILLING AND PUMP INFORMATION:

Drilling with 32,000 - 42,000 lbs. on bit and approx 65-75 RPM.
Running 8 stands of collars; 474.88'
Pumping approx 900 psi at standpipe.

Daily Status

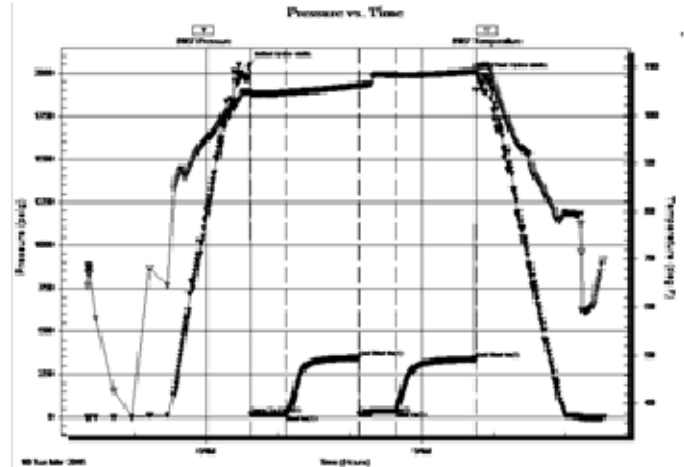
3/3/15 - Spud @ 4:00pm
 3/4/15 - WOC @ 409', Ran 10 jts of used 8 5/8" 28# surface casing set @ 407', cmt w/ 260 sx Class A, 2% gel, 3% CC
 3/5/15 - Drilling @ 1421'
 3/6/15 - Drilling @ 2327'
 3/7/15 - Drilling @ 2858'
 3/8/15 - Displacing @ 3757'
 3/9/15 - Drilling @ 3830'
 3/10/15 - Prep to test @ 4066' DST #1 4043'-4066', RTD 4140', LTD 4139'
 3/11/15 - Ran logs, P&A w/ 50sx @1490', 60sx @ 750, 50sx @420, 20sx @ 60', 30sx in RH of 60-40 poz w/ 4% gel & 1/4#FC/sx

DST #1: 4,043' - 4,066' Cherokee Sand
 30" - 60" - 30" - 60"

IF: 1/4" initial blow, built to 3/4"
 ISI: No blow back
 FF: No blow, flushed tool @ 10min, built to 1"
 FSI: No blow back

RECOVERY: 43' Mud

SIP: 345-338; FP: 17-19, 19-40; HP: 2048-1982;



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
- 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
- Graint
- 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

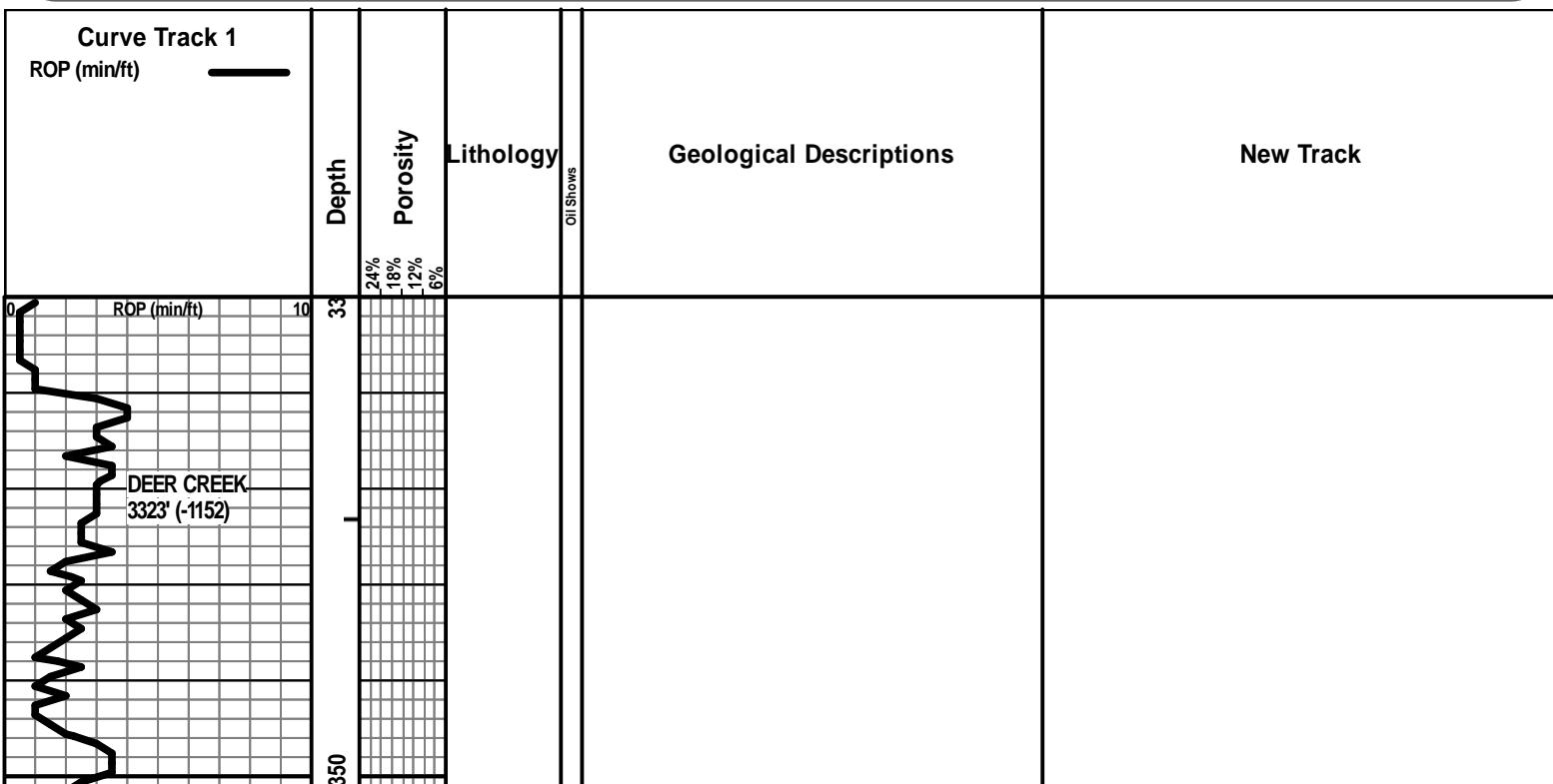
INTERVALS

- Core
- Dst

- Dst

EVENTS

- Rft
- Sidewall
- Conn



Displaced at 3358'

Finished displacement

WT 8.9
VIS 71

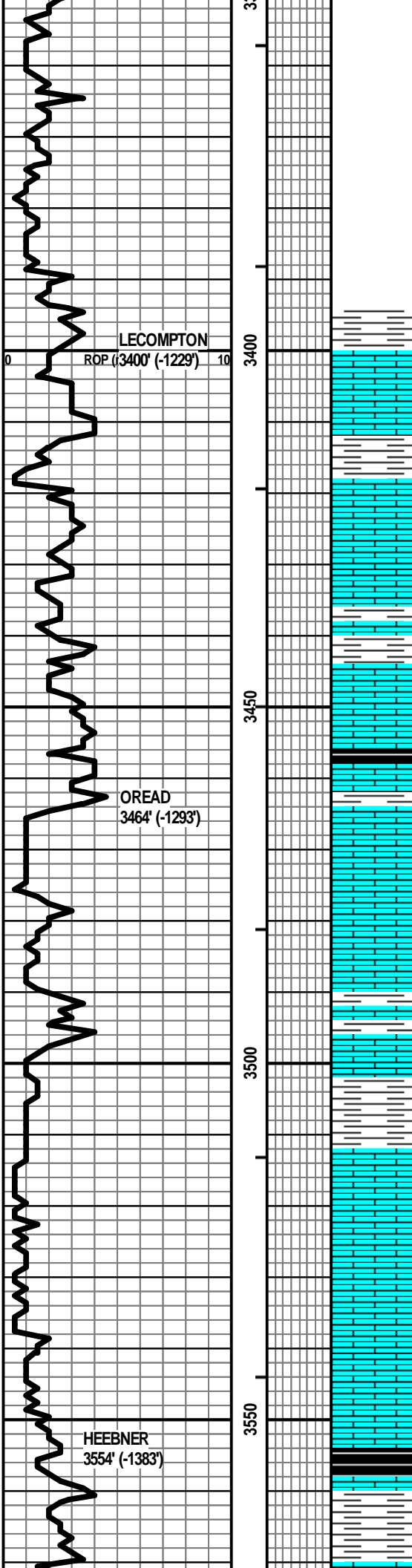
NOT ENOUGH MUD VOLUME

HARDLY ANY CUTTINGS COMING UP

SAMPLE QUALITY IS TERRIBLE

WT 8.9
VIS 89

WT 8.9
VIS 46



SH - GY

LS - TAN, F XLN, P / F INTXLN POR, NS, NO ODOR

SH - GY, V SOFT

LS - LT TAN / DK TAN, F XLN, P / F INTXLN POR, NS, NO ODOR

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

LS - TAN, F XLN, MOD DNS / DNS

SH - GRN
SH - RD

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

SH - BLK, CARB

LS - CRM / TAN, VF / F XLN, MOD DNS, ABUND FOSS, NO VIS POR

LS - TAN / GY, F XLN, DNS

SH - RD / GRN / GY

SH - MAR / RD / RD-ORNG / GRN / BRN / GY, V SOFT IN PT

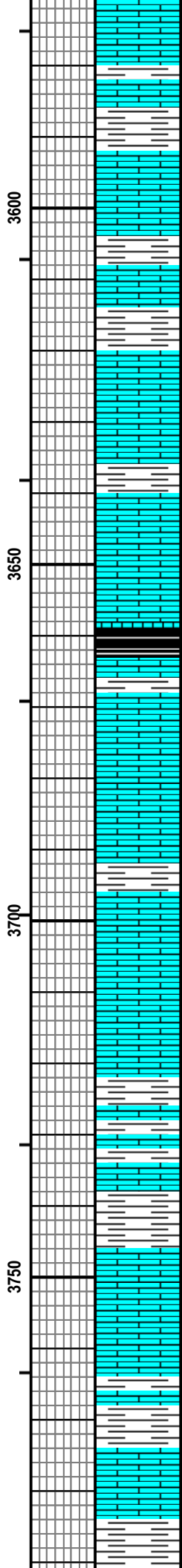
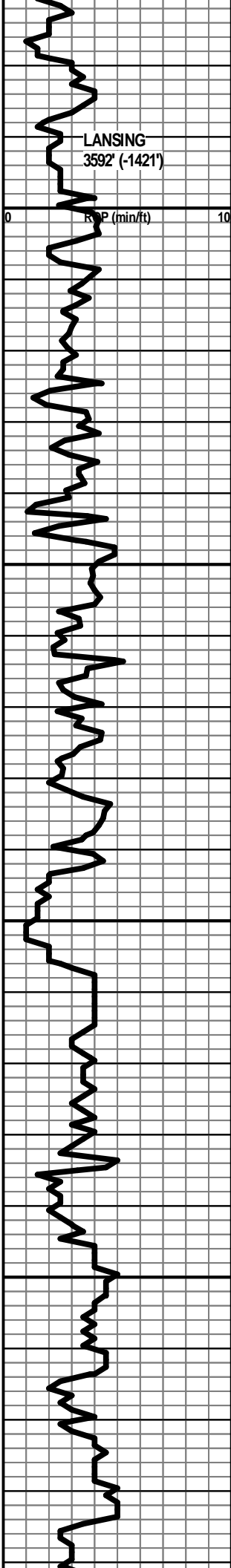
LS - CRM / TAN, VF / F XLN, MOD DNS, FOSS

LS - TAN / BRN, VF / F XLN, MOD DNS / DNS, ABUND FOSS

SH - BLK, CARB

LS - WHT, VF XLN, CHKY

SH - GRN / GY



LS - TAN, F XLN, DNS

LS - TAN / BRN, F XLN , V DNS

SH - GY

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

SH - GY, W/ LS - TAN, F XLN, DNS

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

LS - TAN / GY, VF / F XLN, MOD DNS / DNS

LS - WHT / CRM, VF / F XLN, CHKY / SUBCHKY, W/ SH - GY

LS - CRM, F XLN, DNS, FOSS

LS - TAN / BRN, VF / F XLN, MOD DNS, FOSS, STYLOLITIZED IN PT

SH - BLK, CARB

LS - TAN / LT GY, F XLN, SUBCHKY / DNS, FOSS, W/ SH - DK GRN, FOSS

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

LS - TAN / GY, VF / F XLN, MOD DNS / SUBCHKY, FOSS

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

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

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

SH - GY, W/ LS - CRM, VF / F XLN, MOD DNS

LS - TAN / GY, F XLN, MOD DNS, W/ SH - GY

SH - GRN / GY, W/ LS - CRM / TAN, F XLN, DNS

LS - TAN / GY, VF / F XLN, MOD DNS

SH - GY, W/ LS - CRM, F XLN, MOD CHKY / CHKY

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

SH - GY / GRN / MAR

WT 8.9
VIS 50

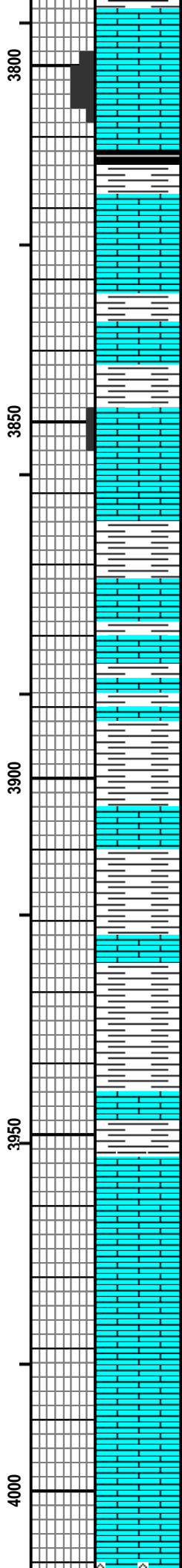
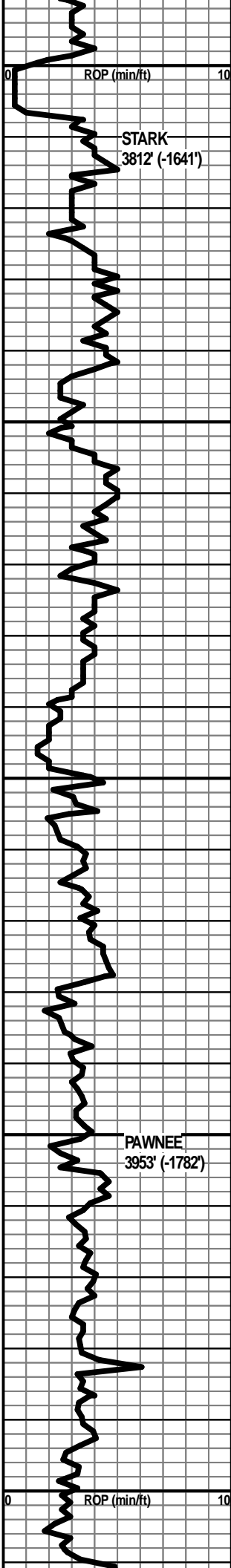
WT 9.0
VIS 49

WT 9.1
VIS 48

WT 9.1
VIS 45

Started premix in

WT 9.3
VIS 51
Premix in



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

LS - CRM, F XLN, P OOLMOLDIC POR, NS, NO ODOR, ABUND OOL

SH - BLK, CARB, W/ SH - GY

LS - CRM, F XLN, P OOLMOLDIC POR, NS, NO ODOR

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

SH - GY

LS - CRM, VF / F XLN, P INTXLN POR IN PT, NS, NO ODOR, FOSS

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

SH - GRN / MAR

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

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

SH - GRN / GY / RD, W/ LS - TAN / GY, F XLN, DNS

SH - GRN / MAR

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

SH - GRN / MAR / GY

LS - CRM, VF XLN, SUBCHKY

SH - MAR / GRN / RD-ORNG / VIOL

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

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

LS - TAN, F XLN, DNS

LS - WHT / CRM, VF XLN, SUBCHKY / CHKY, FOSS IN PT

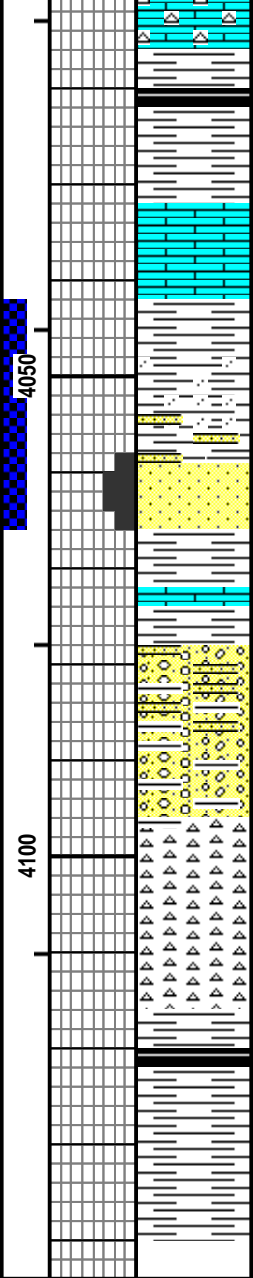
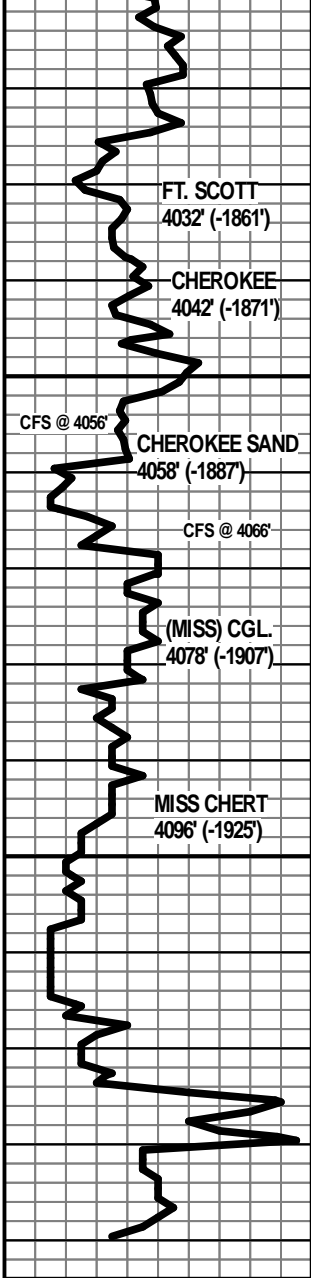
LS - CRM / TAN, F XLN, DNS, W/ CUT - ORNG /

WT 9.2
VIS 54

WT 9.2
VIS 50

WT 9.3
VIS 53

WT 9.1
VIS 53



LS - GRN / TAN, F XLN, DNS, W/ CHT - ORNG / TAN / BRN, OPAQ + TRANSLCNT, DNS

SH - GRN / MAR, SNDY, CLR, FN GR, SUB RND, P SRTD, NO NO ODOR
SH - BLK, CARB

SH - BLK, CARB

LS - TAN, F XLN, DNS, FOSS

SH - GRN / GY / MAR, SNDY

SS - CLR, FN / MED GR, SUB RND, P SRTD, F / G INTXLN POR, GSFO, V SLI ODOR, SLI GRN FLUOR

LS - TAN, F XLN, DNS
SH - GY / GRN / MAR, SNDY IN PT

CONG - SNDY, VSHLY, GRN / GY SH, W/ CLR QTZ GR, FN / M GR, P SRTD, SUB RND

CHT - WHT / ORNG / TAN / GY, FRSH, OPAQ + TRANSLCNT, DNS, W/ SH - RD / GRN / GY
CHT - PRED WHT / YEL IN PT, FRSH, OPAQ + TRANSLCNT, DNS
CHT - WHT / YEL, SLI WEATH, NO POR, OPAQ + TRANCLNT, DNS

SH - LT GY / DK GY
SH - BLK, CARB

SH - GY

RTD 4140'

Strap .76' short to board

WT 9.4
VIS 53

DST #1
CHEROKEE SAND
4043'-4066'
30"-60"-30"-60"

IF: 1/4" initial, built to 3/4"
ISI: No blow back
FF: No blow, flushed tool @ 10min, built to 1"
FSI: No blow back

Rec': 43' Mud

IH: 2048#
IF: 17#-19#
ISI: 345#
FF: 19#-40#
FSI: 338#
FH: 1982#