



# SHAKESPEARE OIL COMPANY, INC. STOLL #-22

2440' FSL & 1740' FWL of Section 22-T16S-R34W  
SCOTT COUNTY, KANSAS  
API#15-171-21087-00-00

## Geologist's Report WellSight Systems

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

Well Name: Stoll #1-22  
API: 15-171-21087-00-00  
Location: 2440' FSL & 1740' FWL of Section 22-T16S-R34W  
License Number: KLN #7311  
Spud Date: 9/08/2014  
Surface Coordinates: 2440' FSL & 1740' FWL of Section 22-T16S-R34W  
Region: Scott County, Kansas  
Drilling Completed: 9/18/2014

Bottom Hole Vertical Test D&A  
Coordinates:  
Ground Elevation (ft): 3128 K.B. Elevation (ft): 3140  
Logged Interval (ft): RTD To: 3750 Total Depth (ft): RTD 4916 LTD 4914  
Formation: Mississippi  
Type of Drilling Fluid: Chemical (Displacement complete @ 3507)

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

### Operator

Company: Shakespeare Oil Company, Inc. KLN# 7311  
Address: 202 W Main  
Salem, IL 62881

### Geologist

Name: Richard S.(Steve) Davis Jr.  
Company: Petroleum Geologist  
Address: 212 N. Market, Suite 268  
Wichita, Kansas 67202

### FORMATION TOPS

| Formation    | Sample | E-Log | KB    | 3140        | Sample | E-Log | Datum |
|--------------|--------|-------|-------|-------------|--------|-------|-------|
|              |        |       | Datum | Formation   |        |       |       |
| Anhydrite    | 2450   | 2448  | +692  | Hushpuckney | 4359   | 4354  | -1214 |
| B/Anhydrite  | 2470   | 2467  | +673  | Lansing L   | 4361   | 4357  | -1217 |
| Topeka       | 3821   | 3819  | -679  | BKC         | 4415   | 4411  | -1271 |
| Heebner      | 3991   | 3988  | -848  | Marmaton    | 4460   | 4456  | -1316 |
| Toronto      | 4006   | 4002  | -862  | Pawnee      | 4543   | 4540  | -1400 |
| Lansing      | 4032   | 4030  | -890  | Fort Scott  | 4583   | 4581  | -1441 |
| Lansing D    | 4146   | 4149  | -1009 | Cherokee Sh | 4611   | 4609  | -1469 |
| Muncie Creek | 4216   | 4212  | -1072 | Johnson     | 4653   | 4651  | -1511 |
| Lansing H    | 4229   | 4234  | -1094 | Mississippi | 4808   | 4804  | -1664 |
| Lansing I    | 4265   | 4262  | -1122 | Total Depth | 4916   | 4914  | -1774 |
| Lansing J    | 4294   | 4289  | -1149 |             |        |       |       |
| Stark        | 4318   | 4313  | -1173 |             |        |       |       |
| Lansing K    | 4328   | 4323  | -1183 |             |        |       |       |

#### DAILY PENETRATION: 7:00 AM

| Date     | Depth | Activity    |
|----------|-------|-------------|
| 09/08/14 | 0     | MIRU & Spud |
| 09/09    | 265   | WOC         |
| 09/10    | 1500  | Drlg        |
| 09/11    | 2080  | Drlg        |
| 09/12    | 2913  | Drlg        |
| 09/13    | 3507  | Drlg        |
| 09/14    | 4024  | Drlg        |
| 09/15    | 4449  | Drlg        |
| 09/16    | 4525  | Drlg        |
| 09/17    | 4682  | Drlg        |
| 09/18    | 4834  | Drlg        |
| 09/20    | 4916  | P&A         |

#### CONTRACTOR:

Southwind Drilling, Rig #70

Toolpusher: Sam Staggs

#### MUD:

Mud Co (displacement complete @ 3507)

Reid Atkins

**DRILL STEM TESTING: Trilobite Testing Inc.**

**Justin Harris**

**ELECTRIC LOG: Weatherford**

Derek Carter

(DIL, CDL/CNL, PE, MEL & Sonic)

#### CASING RECORD:

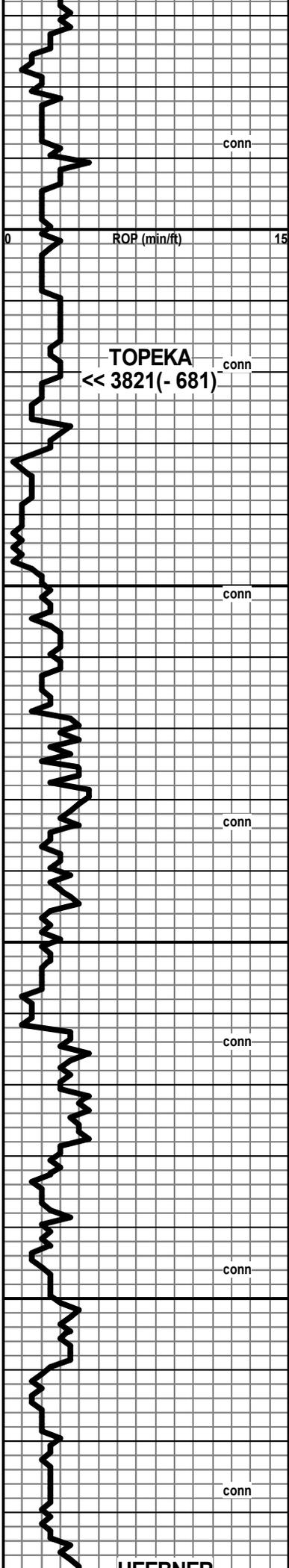
Surface: 8 5/8" @ 265' w/ 225 sx

Production: None

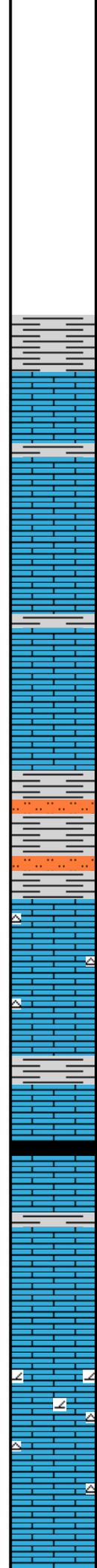
#### BIT RECORD:

| Bit No./Size | Make/Type | Out  | Ftg  | Hrs   |
|--------------|-----------|------|------|-------|
| #1/ 12 1/4"  | RTC/RT    | 265  | 265  | 2 1/4 |
| #2/ 7 7/8"   | RTC/S52P  | 4916 | 4651 | 138   |





3800  
3850  
3900  
3950



LS, brn-gray, f-vfxln, chky IP, foss & ool, P ipart por, NS, mhd

LS, tan-gray, f-mxln, arg, sub ool-foss, NV por, mhd-sft

Shale, black, gray & mar, some silty

LS, gray-tan, vf-micxln, chty, sharp, NV por, dense

Shale, black, dk gray

Shale, black, gray, grn & mar, silty + Slst, gray-gn

LS, white-tan, f-vfxln, chky IP, sltly foss, P pp-vgy por, SSFO, spt'd asph stn, dull fluor, N odor + Cht, tan, sltly foss, opq

LS, brn-gray, vf-micxln, sltly foss, NV por, dense

Shale, dk gray & mar

LS, gray-tan, vfxln, sltly foss, NV por, dense

Shale, black carb

LS, crm-off white, f-vfxln, chky, foss, P ixln por, NS, sft

LS, crm-tan, f-vfxln, foss & ool, F ipart por, SSFO(hvy), spt'd asph stn, dull spt'd fluor, N odor

LS, tan-gray, f-vfxln, sltly foss, NV por, hd

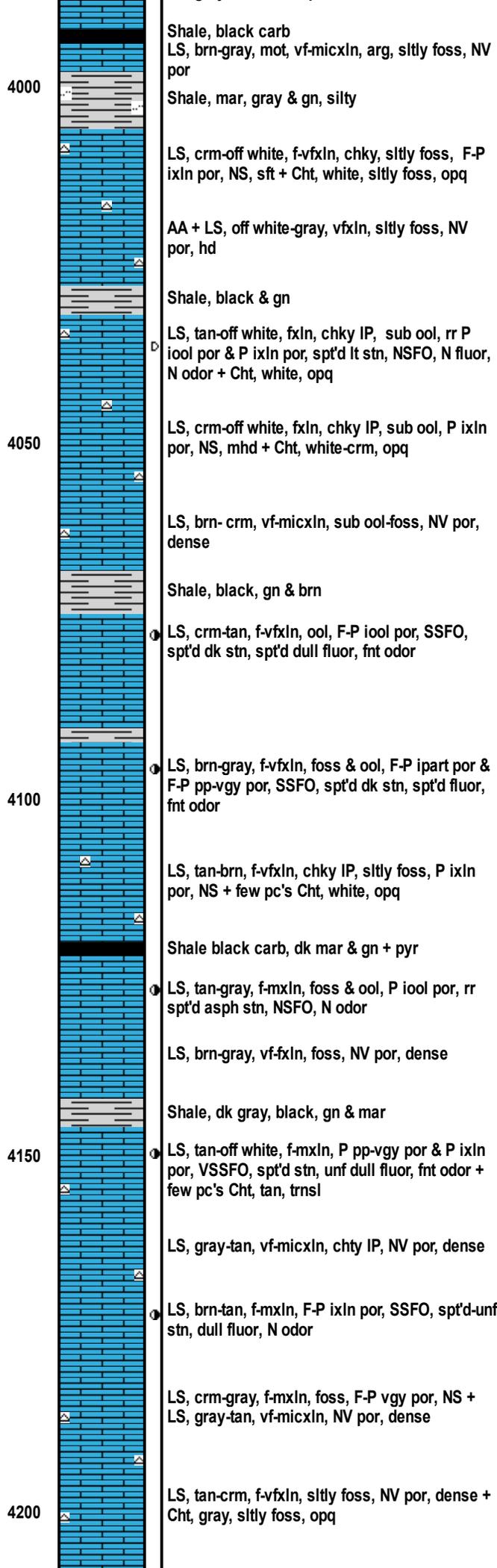
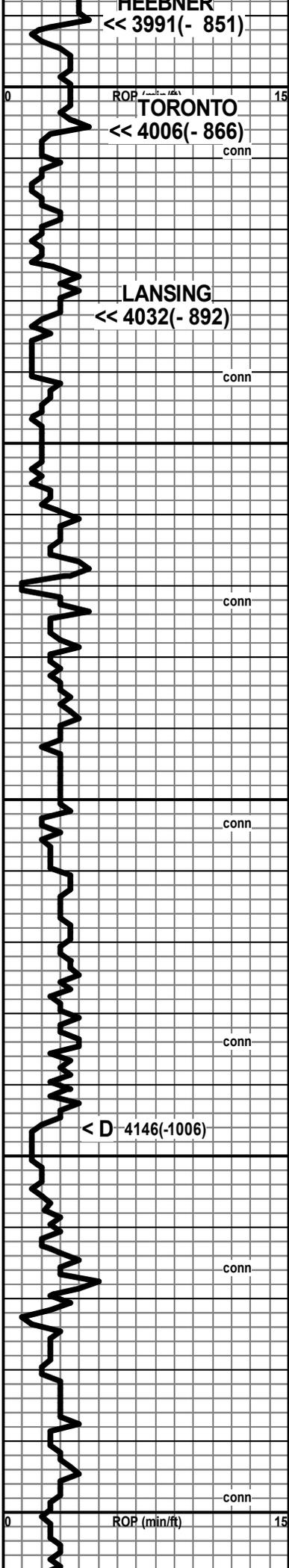
LS, dolo, tan-crm, fxln, P ixln por, rr spt'd stn, NSFO, N odor

LS, brn-gray, f-vfxln, chky IP, sltly foss, NV por + Cht, white-tan, opq

LS, gray, f-vfxln, NV por, dense

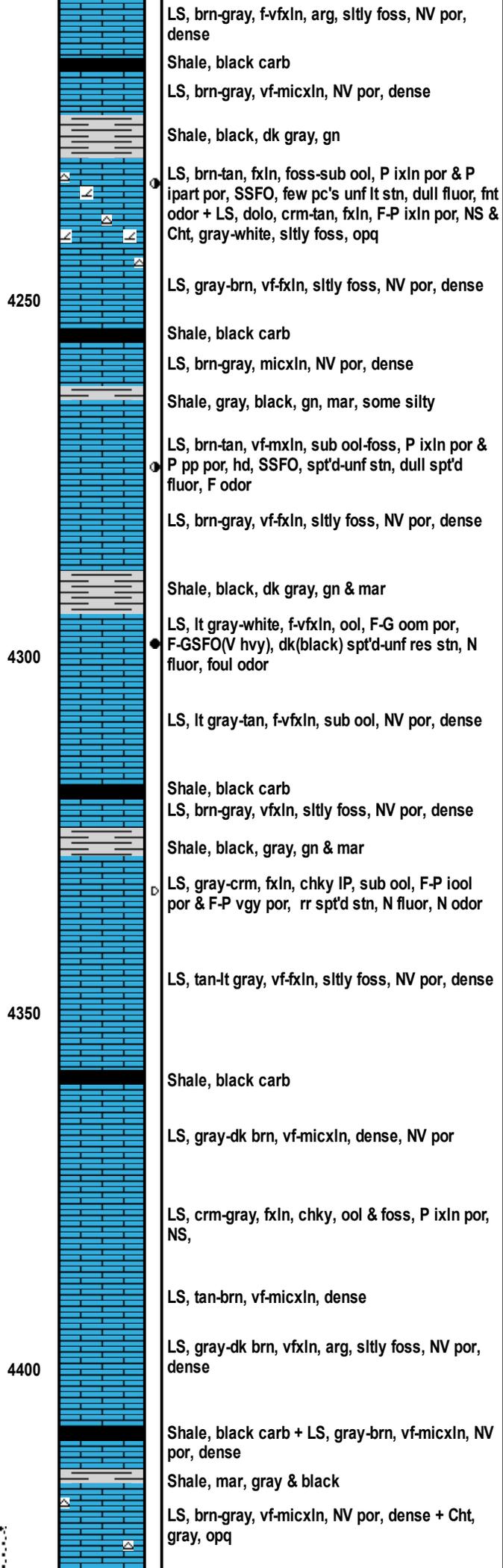
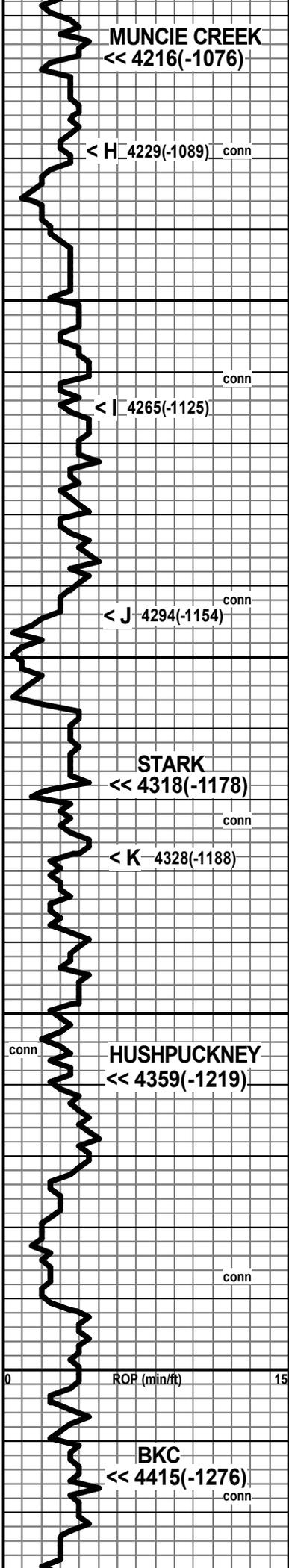
Start 10' Wet & Dry @ 3800

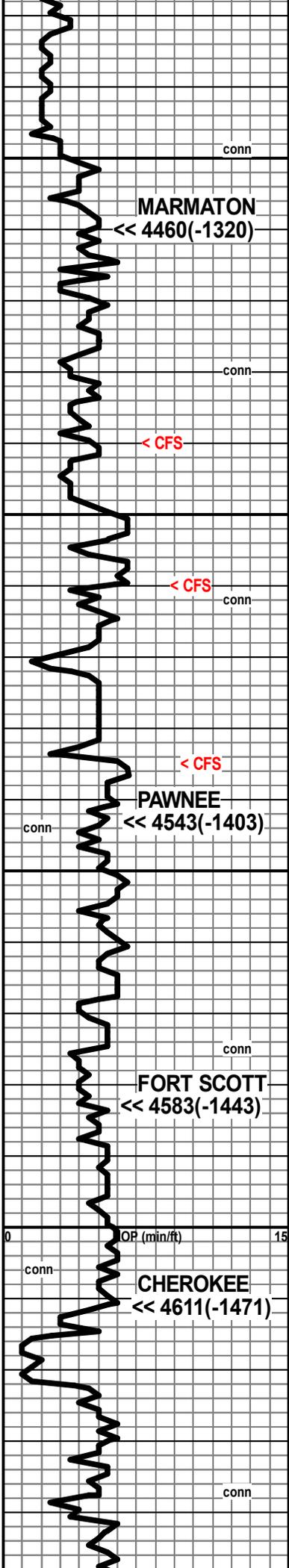
HEERNE



Vis 50 Wt 9.1 Fil 9.6 PH 10  
 Chl 4,000 LCM 1#  
 9/14/14 @ 4042

Vis 46 Wt 9.1





Shale, gray, mar, black & gn + Sltst, gray-gn

Sltst, gray-gn + Shale, black, gray, mar & gn

LS, tan-brn, vf-micxln, sltly foss, P vgy por, spt'd stn, NSFO, N odor

Shale, black, gray & mar

LS, gray-brn, f-mxln, sub ool-foss, F-P ixln por & F-P vgy-pp por, S-FSFO, unfl stn, dull unfl fluor, fnt odor

LS, tan-gray, f-crs xln, sub ool, F ixln por & F-P vgy por, FSFO, unfl stn, dull unfl fluor, fnt odor + Cht, tan-gray, sltly foss, trnsl

LS, crm-off white, vf-micxln, ool & foss, NV por, hd + Shale, black, gray & gn

LS, lt gray-tan, f-vfxln, sub ool-foss, P ixln por & P vgy por, SSFO, spt'd-unfl stn, spt'd fluor, fnt odor + LS, crm-off white, f-vfxln, sltly foss, NV por, chky-dense & Inc Shale, black, gray-gn & mar

LS, gray-tan, vfxln, sub ool-foss, NV por, dense

LS, crm-tan, f-vfxln, chky IP, ool, P iool por, rr spt'd stn, NSFO, N odor

LS, brn-gray, vf-micxln, NV por, dense

Shale, black carb

Shale, black, gray, gn & mar(silty)

LS, tan-lt gray, vfxln, chky IP, sltly foss, NV por, hd + Cht, tan-gray, sltly foss, trnsl-opq

LS, gray-crm, vf-fxln, sub ool-foss, NV por dense + Cht, dk brn-gray, trnsl-opq

Shale, black carb

LS, brn-gray, f-vfxln, foss & ool, chky IP, NV por, hd + Shale, black carb, gn, gray & mar

Shale, black carb

LS, crm-gray, f-vfxln, ool & foss, rr P pp por, spt'd stn, N fluor, NSFO, N odor, hd + Cht, dk gray-brn, opq

LS, brn-gray, micxln, sltly foss, NV por, dense

Shale, black carb

LS, white-lt gray, f-vfxln, chky, sub ool-foss, NV por, sft

LS, gray-brn, vf-fxln, sltly foss, NV por, dense + Cht, gray, sltly foss, opq + Shale, black carb

LS, gray-tan, f-vfxln, sltly foss, NV por, chky-dense

Shale, black carb

PIPE STRAP & SURVEY @ 4490  
Strap 3.48' short to board  
Survey 2 1/2 deg

**DST #1 4422 - 4490**  
(Marmaton A)  
30 30 45 60  
BLOW:  
IF Surface built to 1"  
FF Surface built to 1 1/2"  
RECOVERY: 31' GIP  
5' SGCO (1%g 99%o)  
31' G&MCO (5%g 55%o 40%o)  
36' TOTAL FLUID (Gr 27 deg)  
IHP 2180  
IFP 35 - 38  
ISIP 1160  
FFP 38 - 42  
FSIP 1192  
FHP 2100 BHT 112 deg F

Vis 57 Wt 9.2 Fil 8.0 PH 10.5  
Chl 5,000 LCM 2#  
9/15/14 @ 4490

**DST #2 4484 - 4535**  
(Marmaton B & C)  
30 30 30 30  
BLOW:  
IF Surface blow died 10 min  
FF No blow  
RECOVERY:  
15' M w/ oil spots  
IHP 2216  
IFP 28 - 27  
ISIP 1161  
FFP 25 - 27  
FSIP 1094  
IHP 2181 BHT 109 deg F

Vis 55 Wt 9.3 Fil 9.6 PH 11.5  
Chl 6,000 LCM 2#  
9/16/14 @ 4535

**JOHNSON**  
 << 4653(-1513)

4650

Shale, black, gray, gn & mar

LS, tan-gray, vf-micxln, sub ool-foss, rr P pp por, spt'd stn, NSFO, N fluor, N odor + Cht, brn, trnsl-opq

**DST#3 4662 - 4720**

(Johnson Zone)  
 30 30 60 90  
**BLOW:**  
 IF Surface blow built to 2"  
 FF Surface blow built to 2 1/2"  
**RECOVERY:**  
 45' G&OCM (1%g 30%o 69%m)  
 IHP 2307  
 IFP 32 - 28  
 ISIP 144  
 FFP 36 - 33  
 FSIP 963  
 FHP 2181 BHT 118 deg F

conn

4700

LS, tan-lt gray, vf-micxln, sub ool, NV por, dense + Cht, tan-gray, trnsl

LS, tan-lt gray-crm, v-micxln, sub ool-foss, chky-dense, NV por + Cht, gray-tan, sltly foss, trnsl

LS, brn-gray, vf-micxln, NV por, dense + Cht, dk brn-gray, trnsl

LS, tan-gray, vf-mxln, sltly foss, P ixln por & P vgy-pp por, SSFO, spt'd-unf lt stn, dull fluor, fnt odor

LS, brn-gray, vf-fxln, foss(bry), F vgy por & F ixln por, GSFO w/gas bubb (bleeding), unf-spt'd dark stn, dull fluor, G odor

Vis 67 Wt 9.3 Fil 10.4 PH 10  
 Chl 7,700 LCM 2#  
 9/17/14 @ 4718

conn

< CFS

LS, tan-lt gray, fxln, chky IP, sltly foss, NV por, hd

LS, tan-crm, fxln, chky IP, foss & ool, rr P vgy por, NS, hd + Shale, gray, black, gn & mar

conn

Most Shale, black, gray, gn, mar, red, yel + pyr w/ few clus SS, white, vfgrn, rd, well sort, comp, P ig por, NS

4750

Shale vcol + few clus SS, white-gray, sltly glauc, vfgrn, rd, well sort, comp-fri, F-P ig por, NS

conn

SS, white-clr qtz, sltly glauc, f-vfgrn, rd, mod sort, comp-fri, F-P ig por, rr spt'd gils stn, NSFO, N fluor, N odor + Shale, vcol

< CFS

Shale, gn, gray(sdy), black, mar & yel + pyr

Shale, mar, gray, black, gn + pyr & SS, white-gray, sltly glauc, some w/ black shale incl, rd, mod sort, comp-fri, F-P ig por, NS

conn

4800

ROP (min/ft)

**MISSISSIPPI**  
 << 4808(-1668)

LS, tan-lt gray, vfxln, sdy, vfgrn, NV por, hd

LS, white-gray, fxln, vfgrn, chky IP, NV por, hd

conn

LS, gray-white, fxln, chky IP, sdy & ool, vf-fgrn, NV por, hd

LS, white-crm, fxln, chky IP, ool, f-mgrn, NV por, hd

4850

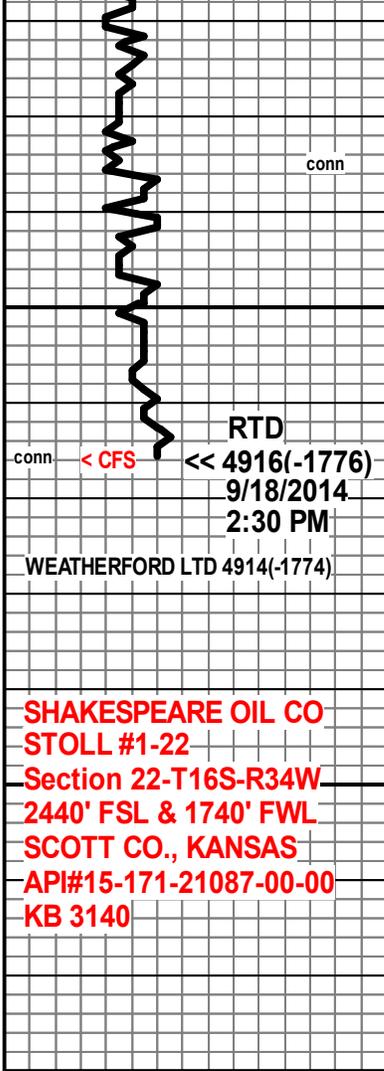
LS AA + LS, white-tan, vf-micxln, sub ool, NV por, dense

LS, crm-gray, fxln, chky IP, sub ool, NV por, dense

conn

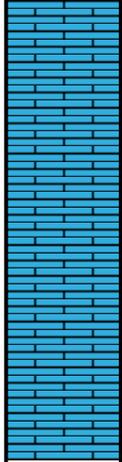
Vis 49 Wt 9.2 Fil 7.4 PH 11  
 Chl 4,500 LCM 2#  
 9/18/14 @ 4850

LS AA + LS, tan-gray, micxln, chky IP, NV por



conn

4900



4950

LS AA + LS, tan-gray, micxln, chky IP, NV por, dense  
 LS AA + LS, crm-gray, vf-fxln, sub ool-foss, NV por, dense  
 LS, crm-gray, vf-fxln, chky IP, sub ool-foss, NV por, dense  
 LS, brn-gray, micxln, NV por, mhd

Survey @ 4916, 2 1/2 deg