

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

Well Name: Stull #1-21  
 API: 15-151-22464-00-00  
 Location: Sec: 21-27S-12W  
 License Number: 3959  
 Spud Date: 10/05/2017  
 Surface Coordinates: NW-NW-NE  
 330' FNL & 2310' FEL

Region: Pratt County, KS.  
 Drilling Completed: 10/16/2017

Bottom Hole  
 Coordinates:  
 Ground Elevation (ft): 1842'      K.B. Elevation (ft): 1854'  
 Logged Interval (ft): 2600'      To: 4557'      Total Depth (ft): 4557'  
 Formation: Arbuckle  
 Type of Drilling Fluid: Polymer/Chemical

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

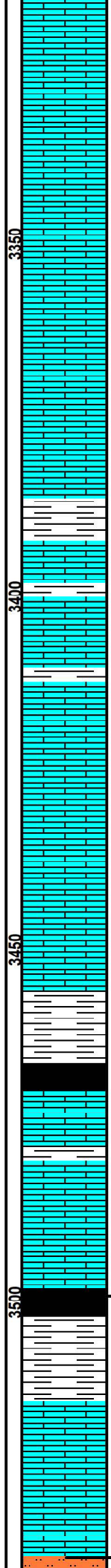
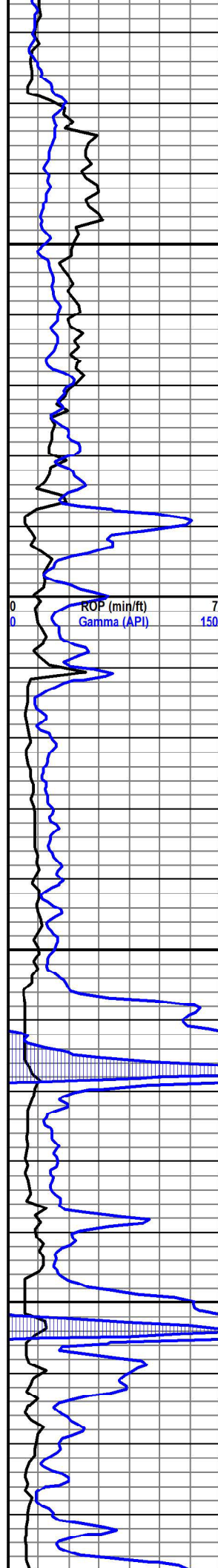
**OPERATOR**

Company: Siroky Oil Management, Inc.  
 Address: P.O. Box464  
 Pratt, KS. 67124-0464

**GEOLOGIST**

Name: Patrick J. Deenihan  
 Company: Independant Consultant  
 Address: 1407 N. Stratford Ln.  
 Wichita, KS. 67206

Curve Track 1		Lithology	Geological Descriptions	Drill Stem Tests	New Track
ROP (min/ft)	Gamma (API)				
			<p>Daily Penetration @ 7:00 A.M.</p> <p>Geologist on Location = *****</p> <p>10-05-17 : MIRU</p>	<p>Total GAS 500</p> <p>Dev. 1/4 @ 340'</p> <p>De 3/4</p>	



3350

3400

3450

3500

**Heebner 3499' (-1645')**

SH - Black, Carb.

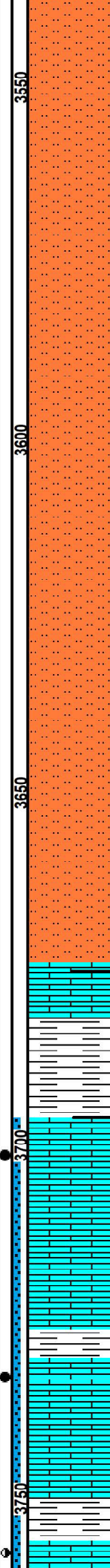
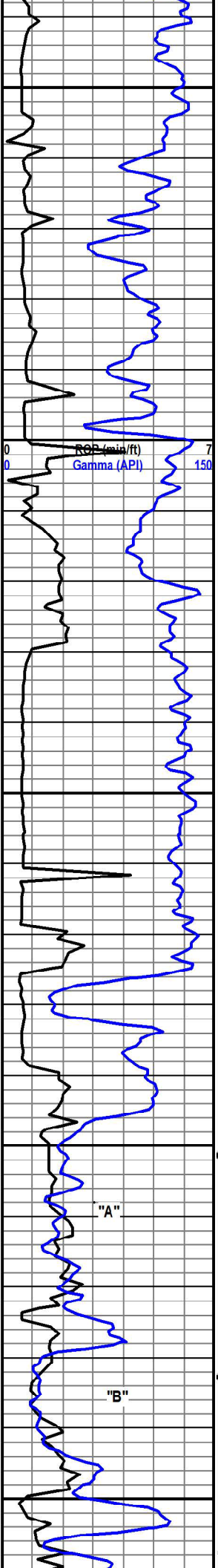
LS - Crm., Brn, gry, fine xln. No show

**Douglas 3536' (-1682')**

- 10-06-17 : 340'
- 10-07-17 : 815'
- 10-08-17 : 2255'
- 10-09-17 : 3365' \*\*\*\*\*
- 10-10-17 : 3760' \*\*\*\*\*
- 10-11-17 : 3885' \*\*\*\*\*
- 10-12-17 : 3948' \*\*\*\*\*
- 10-13-17 : 4042' \*\*\*\*\*
- 10-14-17 : 4160' \*\*\*\*\*
- 10-15-17 : 4444' \*\*\*\*\*
- 10-16-17 : 4555' \*\*\*\*\*

- Dev. 3/4 @ 1566'
- Dev. 3/4 @ 2318'
- Dev. 1/2 @ 2853'
- Dev. 3/4 @ 3353'

Total GAS 500



Siltstone, grey, green, v. fine to fine grained, trace of fine SS.

Very shaley. No show.

Siltstone, aa w/ cream to tan, fine xln to fssl LS, No show.

Siltstone, gry to dark grey, green, No show.

**Brown Lime 3676' (-1822')**

LS - tan to brown, Dense, fossiliferous to ool, slightly cherty, no show.

SH - grey, dark grey

**Lansing 3696' (-1842')**

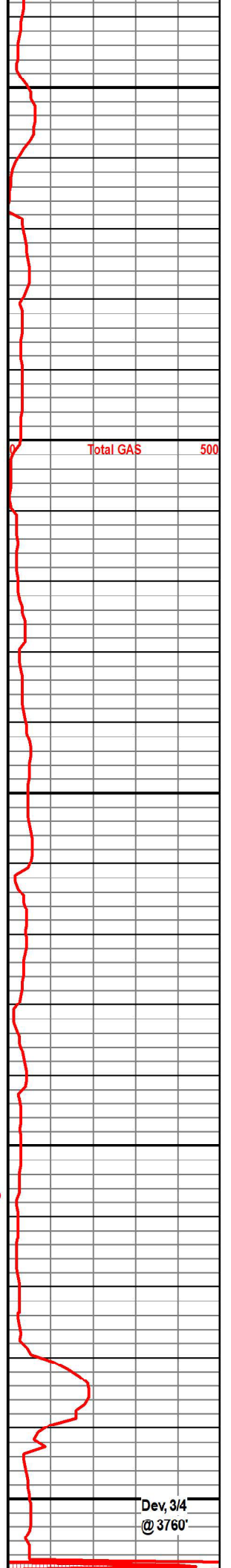
LS - cream, lt gry, fn xln, sing, no show

LS - cream, brown, fine xln to foss, dol interxin ooc pp to vuggular porosity, very good gassy oily odor, fair to good, show live free gassy oil, bright to dull gold fluor.

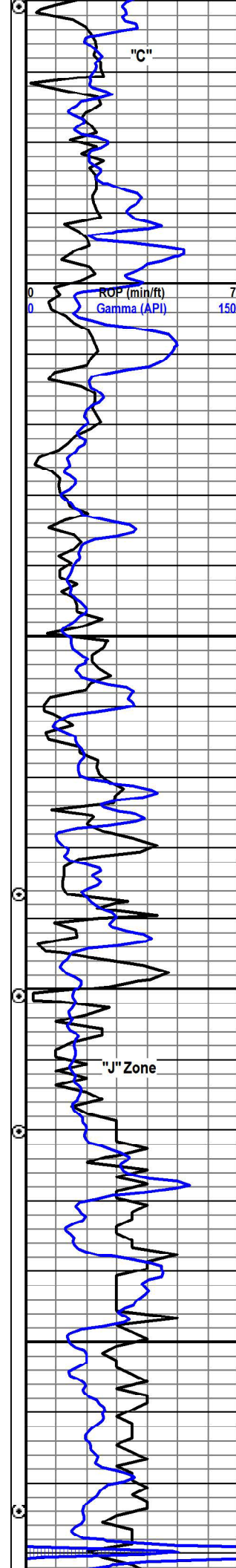
SH - gry to green, argillaceous

LS - cream to tan, lt gry, fin xln to foss, sub chalk, poor to fair pinpoint to shallow vugular porosity, scattered show of light free oil, fair stain, fair to good odor, poor to good fluor.

LS - cream, lt gry, scattered edge stain, weak odor, scattered rare



DST #2 (3696-3760)  
 30-45-45-60  
 IF: BOB 1"  
 ISI: .75" Blow, slowly died back to .25"  
 FF: BOB 15s FSI: 3" blow  
 Recovery:  
 GTS (TSTM) in 20" on first open  
 111' OCM (10%O 90%M) 313'  
 GMCO  
 (40%G 50%O) 10%M  
 IF: 70-152# ISI: 1275#  
 FF: 174-235# FSI: 1273#  
 BHT: 118 Grav.: 30



fluor, slightly cherty to micro-xln.

LS - cream to lt gry, micro to fine xln, no show.

SH - gry to dark gry

SH, grey to dark grey

LS - cream to brown, light grey, tan, grey-mottled, micro-xln to cherty; no show

SH, Gry.

LS - cream to brown, light gry, mott, sing, part fossiliferous, microxln to fn xln, chert, brown, sli fssl, fress, mott, no show

SH - grey

LS - cream, micro-xln to fssl, ool-ool, f-inter-xln in a few pcs, no show

SH - gry, green, brown

LS - cream, nne xln-fssl, ool in pt. ooc smooth chalky to fine xln, no show

**Muncie Creek 3856' (-2002')**

Sh., Black Carb. with Vari-color.

LS, clear to cm, fine xln to fssl, inter-xln ooc, ool, v-g pp-por w/ fair to good intersucrosic to fine xln. V. friable, fair-slight show free oil. Trace of sat to scatt stain in dry, fair to good odor

LS, cream to tan, lght Gry. No show.

LS - cm to tan, fine xln to fossiliferous, singular, abundant oolitic and oolitic porosity w/ fair to good show live free oil. good pinpoint to shallow vugular porosity in matrix. very friable upon crushing; good show live gassy free oil, fair fluor. Good sweet gassy odor.

LS - cm to tan, microxln to trace fine xln, poor foss porosity w/ slight pinpoint in matrix, chalky with depth, scattered show of brown to black free oil, some live, some dead. very poor fluor, very slight odor

**Stark Shale 3933' (-2079)**

SH., Black Carb.

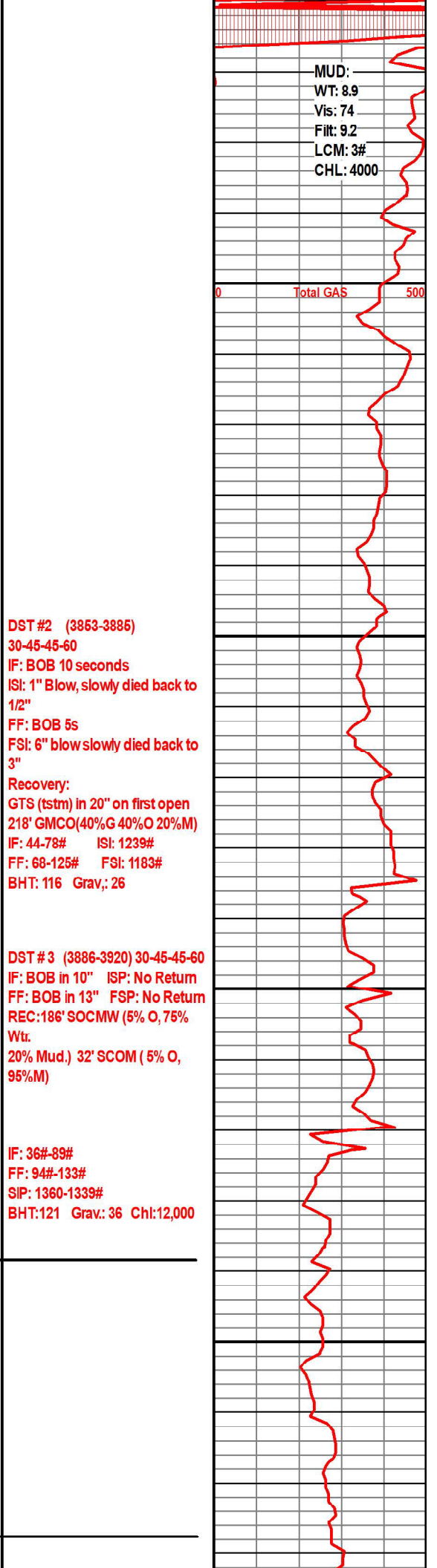
SH., Gry., Blk., Bm. Argil.

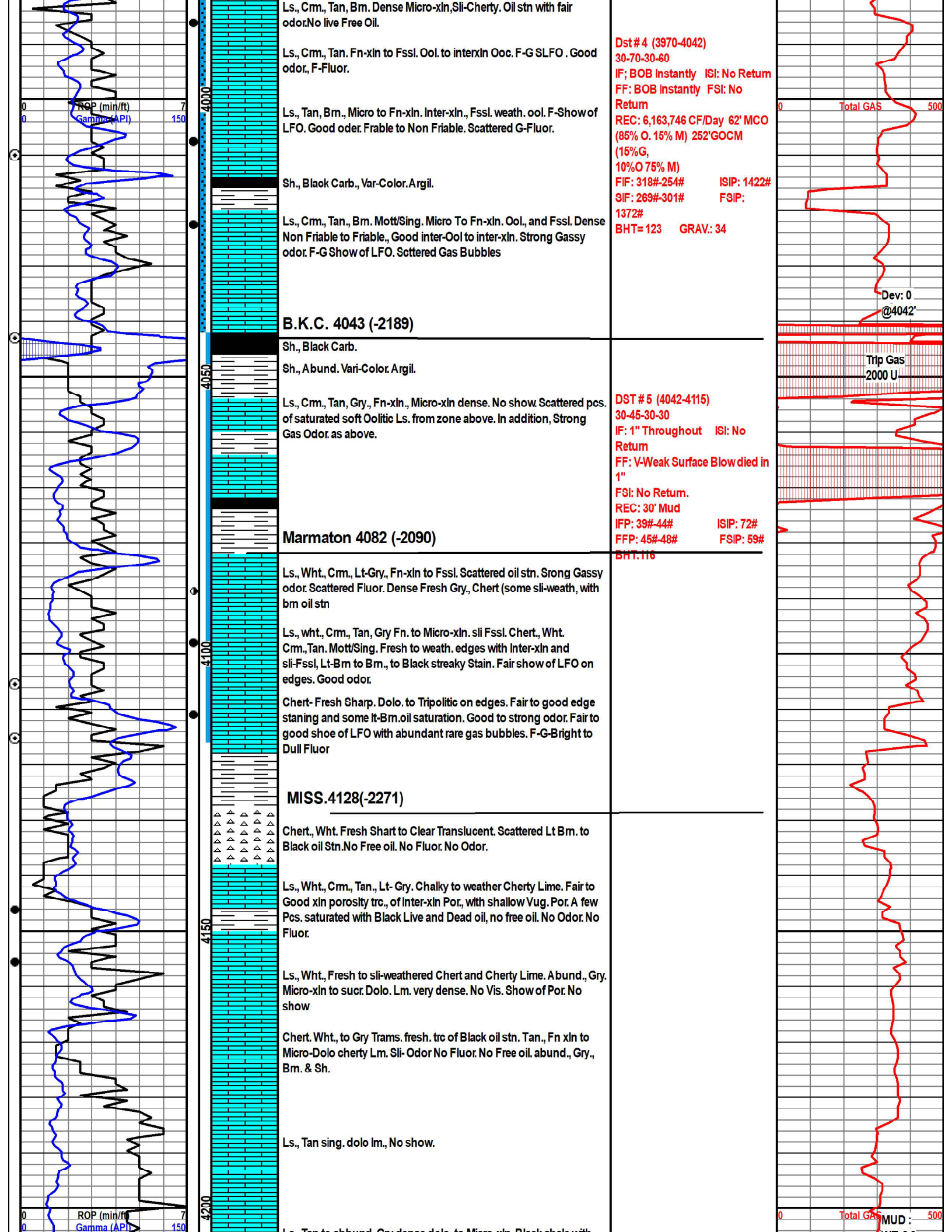
LS., Cm to Tan., Micro-xln to abunfd Mott. Fresh to sli-Weath. Chert. Very dense. No.show.

LS., as above with a few Pcs, of very Ool. To Sli-Ooc Lime.No show.

**Hertha 3978' (-2124)**

SH., Black Carb.





Ls., Cm., Tan, Bm. Dense Micro-xln, Sli-Cherty. Oil stn with fair odor. No live Free Oil.

Ls., Cm., Tan. Fn-xln to Fssl. Ool. to interxln Occ. F-G SLFO . Good odor, F-Fluor.

Ls., Tan, Bm., Micro to Fn-xln. Inter-xln., Fssl. weath. ool. F-Show of LFO. Good oder. Frable to Non Friable. Scattered G-Fluor.

Sh., Black Carb., Var-Color. Argil.

Ls., Cm., Tan., Bm. Mott/Sing. Micro To Fn-xln. Ool., and Fssl. Dense Non Friable to Friable., Good inter-Ool to inter-xln. Strong Gassy odor. F-G Show of LFO. Scattered Gas Bubbles

**B.K.C. 4043 (-2189)**

Sh., Black Carb.

Sh., Abund. Vari-Color. Argil.

Ls., Cm., Tan, Gry., Fn-xln., Micro-xln dense. No show. Scattered pos. of saturated soft Oolitic Ls. from zone above. In addition, Strong Gas Odor. as above.

**Marmaton 4082 (-2090)**

Ls., Wht., Cm., Lt-Gry., Fn-xln to Fssl. Scattered oil stn. Strong Gassy odor. Scattered Fluor. Dense Fresh Gry., Chert (some sli-weath, with bm oil stn

Ls., wht., Cm., Tan, Gry Fn. to Micro-xln. sli Fssl. Chert., Wht. Cm., Tan. Mott/Sing. Fresh to weath. edges with Inter-xln and sli-Fssl, Lt-Bm to Bm., to Black streaky Stain. Fair show of LFO on edges. Good odor.

Chert- Fresh Sharp. Dolo. to Tripolitic on edges. Fair to good edge staning and some lt-Bm. oil saturation. Good to strong odor. Fair to good shoe of LFO with abundant rare gas bubbles. F-G-Bright to Dull Fluor

**MISS.4128(-2271)**

Chert., Wht. Fresh Shart to Clear Translucent. Scattered Lt Bm. to Black oil Stn. No Free oil. No Fluor. No Odor.

Ls., Wht., Cm., Tan., Lt- Gry. Chalky to weather Cherty Lime. Fair to Good xln porosity trc., of Inter-xln Por., with shallow Yug. Por. A few Pcs. saturated with Black Live and Dead oil, no free oil. No Odor. No Fluor.

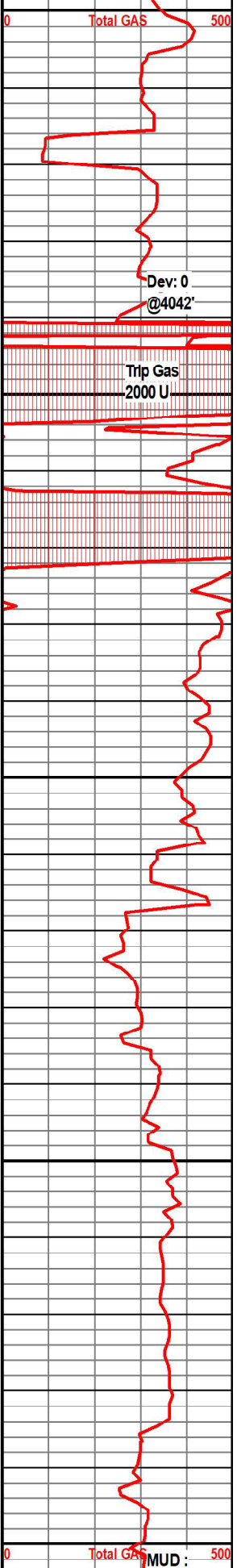
Ls., Wht., Fresh to sli-weathered Chert and Cherty Lime. Abund., Gry. Micro-xln to sucr. Dolo. Lm. very dense. No Vis. Show of Por. No show

Chert. Wht., to Gry Trans. fresh. trc of Black oil stn. Tan., Fn xln to Micro-Dolo cherty Lm. Sli- Odor No Fluor. No Free oil. abund., Gry., Bm. & Sh.

Ls., Tan sing. dolo lm., No show.

**Dst # 4 (3970-4042)**  
 30-70-30-60  
 IF: BOB Instantly ISI: No Return  
 FF: BOB Instantly FSI: No Return  
 REC: 6,163,746 CF/Day 62' MCO  
 (85% O. 15% M) 252' GOCM  
 (15%G,  
 10%O 75% M)  
 FIF: 318#-254# ISIP: 1422#  
 SIF: 269#-301# FSIP:  
 1372#  
 BHT= 123 GRAV: 34

**DST # 5 (4042-4115)**  
 30-45-30-30  
 IF: 1" Throughout ISI: No Return  
 FF: V-Weak Surface Blow died in 1"  
 FSI: No Return.  
 REC: 30' Mud  
 IFF: 39#-44# ISIP: 72#  
 FFP: 45#-48# FSIP: 59#  
 BHT: 116



LS., Tan to abbund. Gry dense dol. to Micro-xln. Black Shale with scatterer Gry and Gm. Argil.No show.

WT: 9.0  
Vis: 74  
Filt: 9.2  
LCM: 4#  
CHL: 7000

Chert., Vari-Colored Fresh to Sil-Weathered., Some Rounded to Angular Qtz>, No show.,Abund. Vari- Colored Argil. Shale

Sh., Black, Gry, Gm., Bm.

**Viola 4272 (-2418)**

LS., Wht., Brn., Cherty Ls., Dense Micro-xln., non Friable Trc. of P-edge stn., NFO. No odor.

Lm., Wht., Cm., Micro-xln. Very Dense., Wht. to Gry. Chert, Fresh. No shoe

LS., As above with abund., Vari-color. Sh. No show.

Sh., Black Carb.

**Simpson Shale 4393 (-2539)**

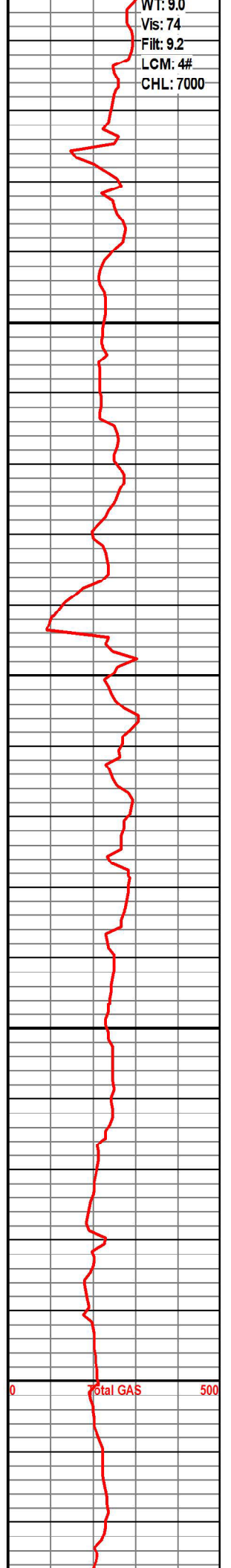
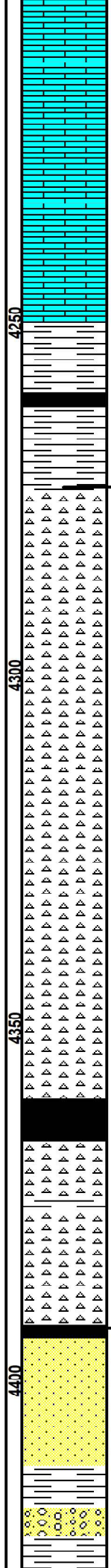
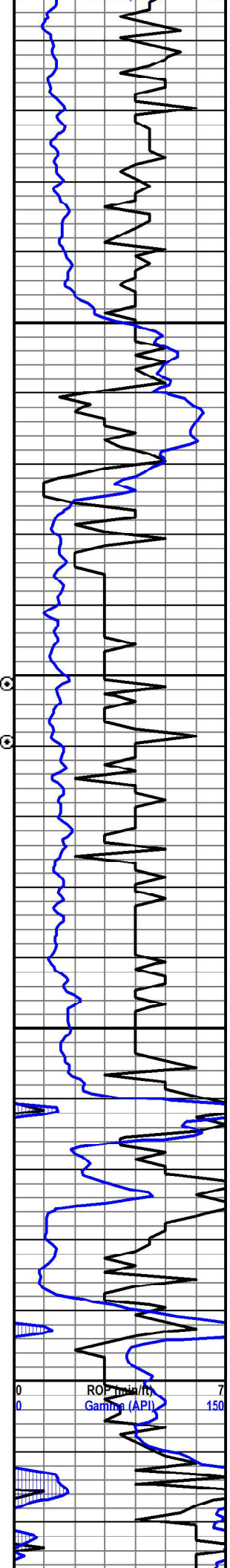
Sh Black Gm., and Gry., Silty to Argil.

SS., Wht., Clear, Cm.Very Fn-Gm., Well Rounded, Well Sorted. V-Dense Silica Cementation in Matrix. Non-Friable. Abund. Pyrite and fair amout of Gluconite. No show.

Sh., Black and Gry., Argil

SS., Wht. to Cm. As above., with trace of Free Qtz., No Fluor. or show of oil.

Sh. Black and Gry. Argil



ROP (m/min)  
Gamma (API)

Total GAS

Sh., Black and Gray, Argill.

Sh., Abund. Vari-Color.

**Arbuckle 4472 (-2618)**

Dolo., Wht., Cm. Sucr. to Fn-Gm., Rhomb. Very Dense. No show  
Sli-Sulfur odor.

Dolo., As above with sulfur odor

Dolo., Sucr. to Fn-gm. to medium Rhombic Porosity No show,  
Strong Sulfur odor.

RTD = 4555' Reached on 10-15-17

LTD = 4557'

Bit Trip @ 4455'

MUD :  
WT: 9.2  
Vis: 57  
Filt: 10.4  
LCM: 3#  
CHL: 6000

Dev: 1.5  
@ 4555  
RTD

