



# Musgrove

Petroleum Geology  
212 Main Street, Claflin KS

## NOTES

Company: Blueridge Petroleum Corporation

Lease: Brown 2-12

Location: SE-NW-NE-NW (630' FNL & 1858' FWL)

Sec: 12 Twsp: 3S Rge: 29W

Field: Pollnow Southeast

County: Decatur State: Kansas

KB: 2555' GL: 2547'

API #: 15-039-21235-00-00

Contractor: Discovery Drilling, Inc. (Rig #3)

Spud: 10/10/2016 Comp: 10/17/2016

RTD: 3810' LTD: 3812'

Mud Up: 3200' Type Mud: Chemical

Surface Casing: 8 5/8" @ 216'

Production Casing: 5 1/2" @ 3808'

Samples Saved From: 3300' to RTD

Drilling Time Kept From: 3300' to RTD

Samples Examined From: 3300' to RTD

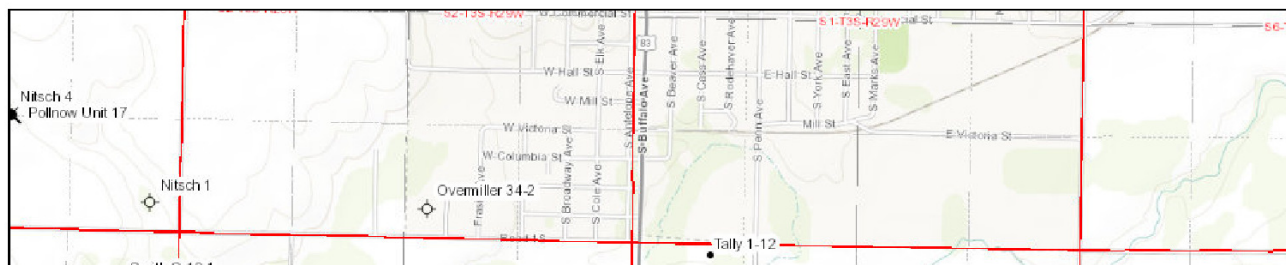
Geological Supervision from: 3300' to RTD

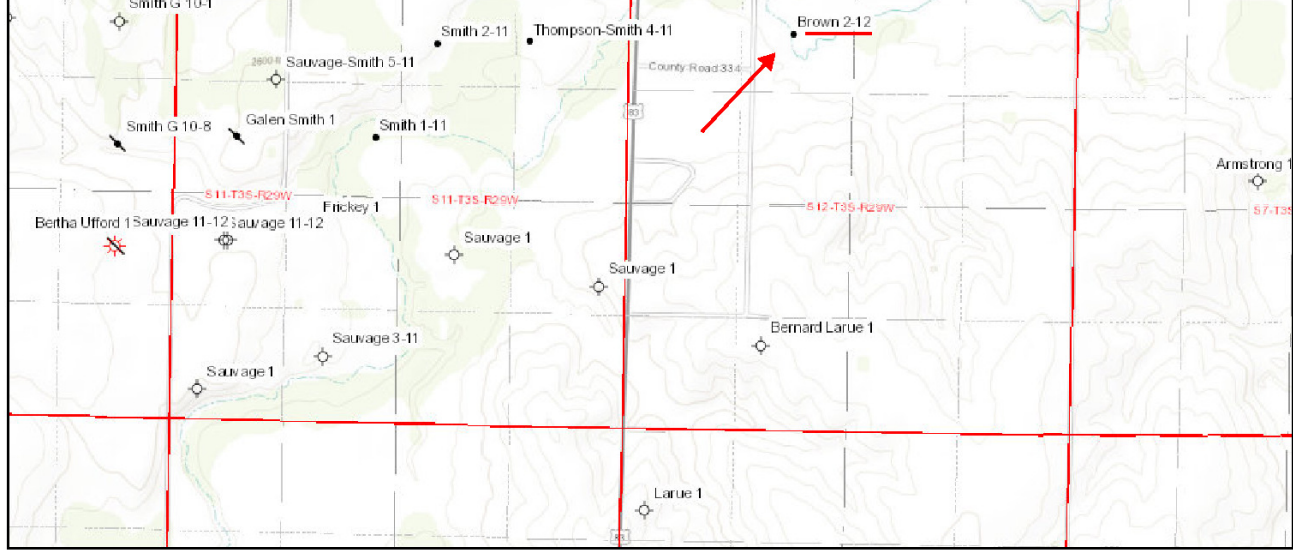
Geologist on Well: Wyatt Urban (3300'-3575') & Jim Musgrove (3575'-3810')

Electronic Surveys: Logged by ELI: DIL, MEL, CDL/CNL

## Area Map

Blueridge Petroleum - Brown #2-12





October 17, 16

1:18,056  
 0 0.15 0.3 0.6 mi  
 0 0.25 0.5 1 km  
 Sources: Esri, HERE, DeLorme, Intermap, Inetmap, P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey.  
 Kansas Geological Survey  
<http://maps.kgs.ku.edu/figs>

### Well Comparison

# BLUERIDE PETROLEUM CORP WELL COMPARISON SHEET

Formation	DRILLING WELL				COMPARISON WELL				COMPARISON WELL				
	Blueridge- Brown 2-12				Blueridge-Tally 1-12				Blueridge-Thompson-Smith 4-11				
	SE-NW-NE-NW 12-3S-29W				NW-NE-NW-NW 12-3S-29W				NW-SW-NE-NE 12-3S-29W				
	oil		2555 KB		oil		2567 KB		oil		2572 KB		
	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log	
Anhydrite	2253	302	2285	270									
B. Anhydrite	2291	264	2291	264									
Heebner	3523	-968	3524	-969	3538	-971	3	2		3545	-973	5	4
Toronto	3556	-1001	3555	-1000	3569	-1002	1	2		3580	-1008	7	8
Lansing	3564	-1009	3564	-1009	3579	-1012	3	3		3586	-1014	5	5
Stark	3718	-1163	3719	-1164	3734	-1167	4	3		3739	-1167	4	3
Base Kansas City	3762	-1207	3764	-1209	3774	-1207	0	-2		3786	-1214	7	5
RTD	3810	-1255	3810	-1255									
LTD	3812	-1257	3812	-1257	3830	-1263	6	6		3850	-1278	21	21

### ROCK TYPES

Lmst fw<7	shale, gry	shale, red
shale, grn	Carbon Sh	Ss

### ACCESSORIES

**MINERAL**  
 △ Chert White

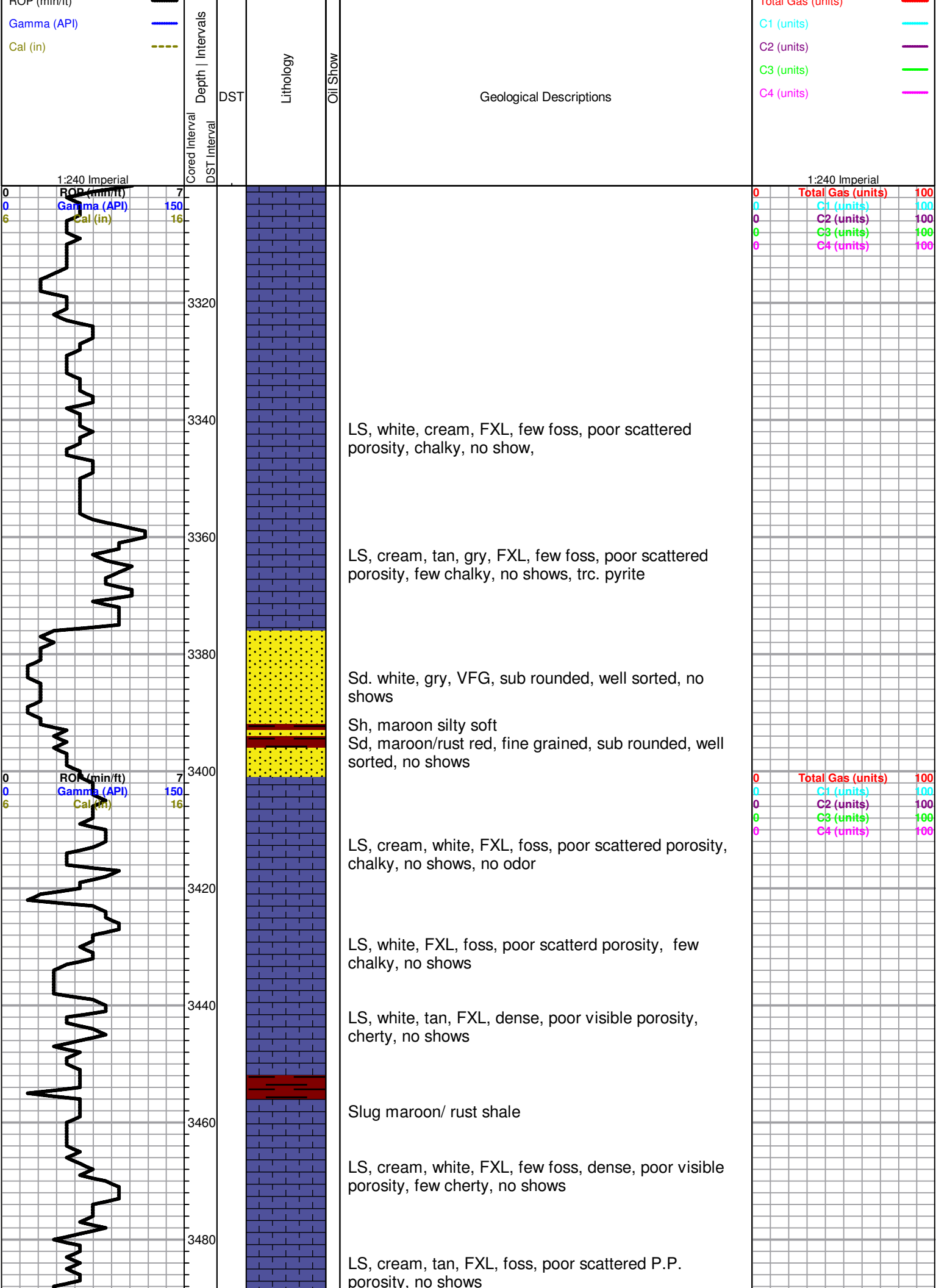
**FOSSIL**  
 ○ Oolite  
 ⊕ Oomoldic

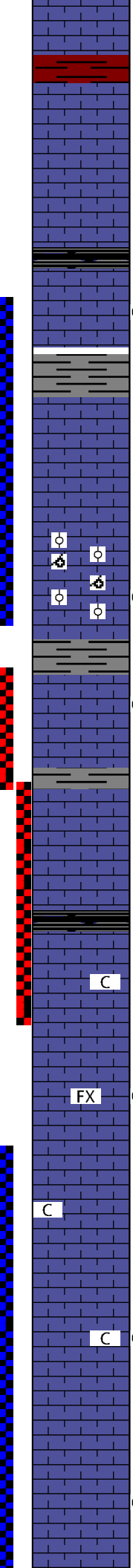
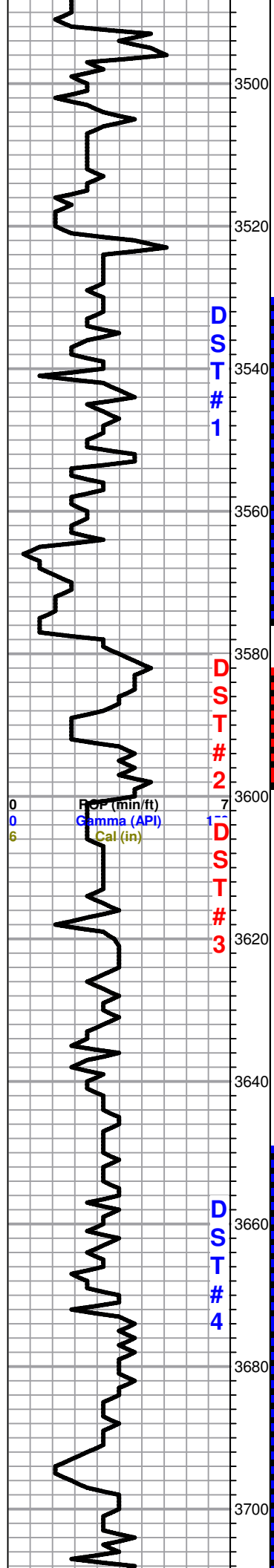
**TEXTURE**  
 C Chalky  
 FX Finexln

### OTHER SYMBOLS

**Oil Show**  
 ● Good Show  
 ● Fair Show  
 ○ Poor Show  
 ○ Spotted or Trace  
 ○ Questionable Stn  
 D Dead Oil Stn  
 ■ Fluorescence  
 \* Gas

**DST**  
 ■ DST Int  
 ■ DST alt  
 ■ Core  
 || tail pipe





Slug of maroon/ rusty shale

LS, cream, tan , FXL, few foss, poor scattered porosity, cherty in pts, no shows

**Heebner 3523.0 (-968.0) Log (-969.0)**

Black carb Shale

LS, cream, white, FXL, poor visible porosity, chalky in pts, Trc. Spty SFO (very dark tar viscous in 40 min sample) no odor

Sh, gry, greenish, few maroon

**Toronto 3556.0 (-1001.0) Log (-1000.0)**

LS, white, cream, FXL, few foss, poor scattered P.P. porosity, no shows, no odor

**Lansing 3564.0 (-1009.0) Log (-1009.0)**

LS, white, oom, fair scatered oom vuggy porosity, chalky, NSFO (Barren) few Orange ool. chert, few pyrite  
LS, white, cream, FXL, ool, poor -fair scattered oom vuggy porosity, Lt. spty SFO, trc. black stain, odor???

LS, white, gry, F-MedXLN, good INXLN / vuggy porosity, few chalky, ( 100% stain/saturation in few pieces), fair/good stain & saturation, good SFO, fair odor

LS, white, gry, foss/ ool, scattered porosity, brown black stain, SFO, faint odor

Black carb Shale

LS, white, gry, cream, chalky, few foss  
Maroon, green shale

LS, white, gry, FXL, foss, in pts, Trc. brown stain, Trc. SFO (cavings???)

LS, white, cream, slightly foss, chalky, dense, poor visible porosity,

A/A, slightly chalky, (dense)

LS, tan, brown, white, chalky, few scattered P.P. porosity, trc. lt. brown stain, trc. SFO, no odor

Trc. gry, greenish shale, slug maroon/brick red shale

LS, white, cream, foss, few MedXLN, fair brown stain/sat, SFO, odor???

**DST # 1 3531-3575**

30-30-45-45

1st Open: BOB 9.5 mins

2nd Open: BOB 12 mins

Recovery:  
715' Muddy Water  
W/ Show of oil

Wyatt Urban  
3300-3575

Jim Musgrove  
3575-RTD

**DST #2 3585-3600**

30-30-45-60

1st open:  
BOB 2.5 mins

2nd Open:  
Built to 2"

Recovery:

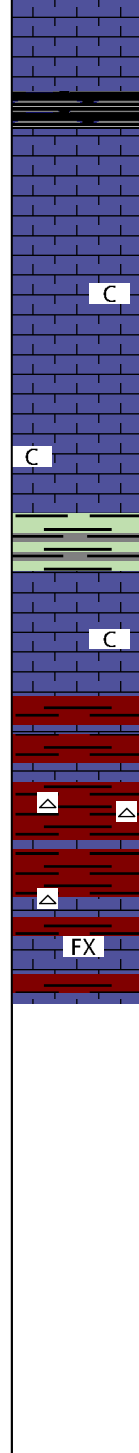
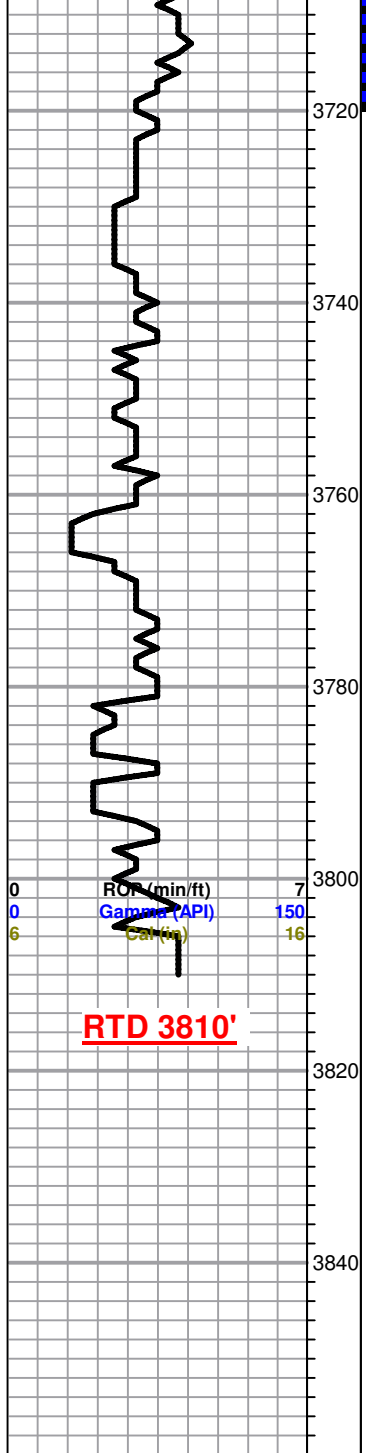
1147' GIP

341' Clean Gassy  
Oil  
( 30%G, 70% O)

62' MWCGO  
(30%G, 55%O,  
10%W)

310' G&OCMW  
(5%G, 5%O, 60%  
W, 30%M)

434' Muddy water  
with show of oil



LS, white/ gry, F-Medxin, trc. sppty stain, no odor

**Stark 3718.0 (-1163.0) Log (-1164.0)**

Black carb Sh

Slug of cavings

LS, white, cream, chalky, poor visible porosity, no shows

Trc. black carb shale

LS, white, gry, cream, chalky in pts, dense, no shows

**Base KC 3762.0 (-1207.0) Log (-1209.0)**

Gry, green, brick red/maroon silty shales

LS, white/ gry, cream, few maroon tinted, chalky, no shows

Maroon, silty shale and yellow chert,

Maroon, brick red, shale to silty red soft shale, trc. white cherts & LS, white, gry, FXL, few foss, poor scattered porosity, no shows

**RTD 3810.0 (-1255.0) Log (-1255.0)**

**LTD 3812.0 (-1257.0) Log (-1257.0)**

(95%W, 5%M)

Pressures:  
 ISIP 961 psi  
 FSIP 971 psi  
 IFP 56-301 psi  
 FFP 309-509 psi  
 HSH 1722-1681 psi

**DST#3 3598-3634**  
 Packer Failure

**DST#4 3650-3720**  
 30-30-30-45

1st Open:  
 Weak blow died in 7 mins

2nd Open:  
 Dead

Recovery:  
 5' Oil Spotted Mud

Pressures:  
 ISIP 87 psi  
 FSIP 98 psi  
 IFP 34-35 psi  
 FFP 35-38 psi