



# AUSTIN B. KLAUS



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

**Well Name:** Preston Unit #1-A  
**Location:** Lyon County  
**License Number:** API #15-111-20534-00-00  
**Spud Date:** 4/12/18  
**Surface Coordinates:** Section 24, Township 15 South, Range 11 East  
222' FNL & 170' FEL  
**Bottom Hole Coordinates:** Vertical well w/ minimal deviation, same as above  
**Ground Elevation (ft):** 1,272  
**Logged Interval (ft):** 2,200  
**Formation:** LKC-Arbuckle  
**Type of Drilling Fluid:** Chemical (Mud Co.)

**Region:** Kansas  
**Drilling Completed:** 4/20/18  
**K.B. Elevation (ft):** 1,280  
**Total Depth (ft):** 3,050  
**To:** RTD

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

## OPERATOR

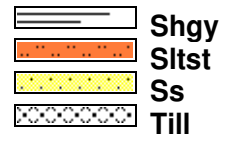
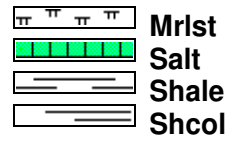
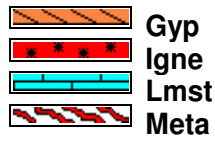
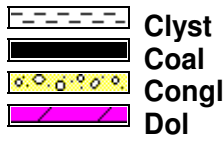
**Company:** John O. Farmer, Inc.  
**Address:** 370 W. Wichita Ave.  
Russell, KS 67665

## Comments

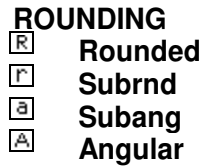
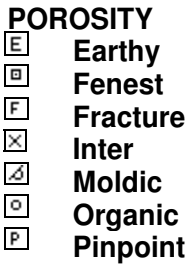
The Preston Unit #1-A well was drilled by Discovery Drilling Rig #2 (Tool Pusher: Terry Wickham).

The location for the Preston Unit #1-A was discovered via 3D seismic. Rock samples were gathered and evaluated from 2,200' - 3,050'. Oil shows were encountered in the Hunton, Viola, and Simpson Sand. Structurally, the Mississippian top was picked 5' high to the comparison well, Lewis #1 (Halliburton-Knighton). Structural thinning occurred through the lower Miss, which resulted in a Kinderhook picked 16' high to the comparison well. Structure remained consistent down to the Simpson Sand, which came in 13' high. After evaluation of all oil shows, drill stem test results, & electric logs, it was decided that 5 1/2" production casing be set to further evaluate the Preston Unit #1-A on 4/20/18.

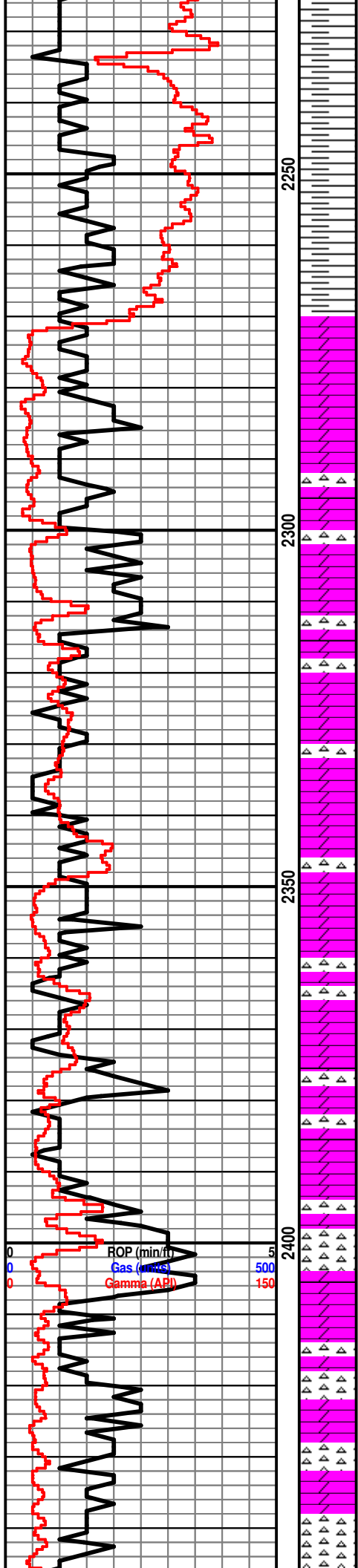
### ROCK TYPES



### OTHER SYMBOLS



Curve Track 1	Depth	Lithology	Geological Descriptions	DST/Mud/Survey																								
ROP (min/ft) ——— Gas (units) - - - - - Gamma (API) ———																												
0 ROP (min/ft) 5 0 Gas (units) 500 0 Gamma (API) 150	21		<p>The open-hole logging was performed by Mr. Casey Patterson with Gemini Wireline, LLC (Hays, KS). Logs included: Compensated Density Neutron, Dual Induction, and Microresistivity.</p> <p>Formation tops and datums from the open-hole logs include the following:</p> <table style="margin-left: 20px;"> <tr><td>Miss</td><td>2271</td><td>-991</td></tr> <tr><td>Kinderhook</td><td>2595</td><td>-1315</td></tr> <tr><td>Hunton</td><td>2742</td><td>-1462</td></tr> <tr><td>Maq</td><td>2837</td><td>-1557</td></tr> <tr><td>Viola</td><td>2860</td><td>-1580</td></tr> <tr><td>Simp. SD</td><td>2976</td><td>-1696</td></tr> <tr><td>Arbuckle</td><td>3025</td><td>-1745</td></tr> <tr><td>RTD</td><td>3052</td><td>-1772</td></tr> </table>	Miss	2271	-991	Kinderhook	2595	-1315	Hunton	2742	-1462	Maq	2837	-1557	Viola	2860	-1580	Simp. SD	2976	-1696	Arbuckle	3025	-1745	RTD	3052	-1772	Mud Engineer: Rick Hughes Tester: Jimmy Ricketts
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4/12/2018 Spud 12 1/4" @ 7:15pm																												
4/13/2018 223', Circ to Clean Hole																												
4/14/2018 720', Drilling																												
4/15/2018 988', Change Pump																												
4/16/2018 1,600', Drilling																												
4/17/2018 2,509', Trip for Cracked Collar																												
4/18/2018 2,870', DST #1	2150																											
4/19/2018 2,998', Drilling																												
4/20/2018 3,050, Completed																												
0 ROP (min/ft) 5 0 Gas (units) 500 0 Gamma (API) 150	2200	Sh: blk, carb  Sh: ala																										



Sh: drk gry-blk

Sh: ala, scat sltst: lt gry

**Mississippian 2261' (-981)**

Dolo: off wh-tan-lt gry, fn-sub xln, vry DNS, scat chert-off wh-brn

Dolo: tan-lt gry, fn-sub xln, DNS, no visible porosity, scat pyrite, scat chert-off wh

Dolo: off wh-tan-gry, fn-sub xln, scat int xln porosity, NSFO, scat chert-off wh

Dolo: tan-brn, fn xln, fair int xln & scat vuggy porosity, NSFO, scat foss, scat chert- wh

Dolo: tan-gry, fn xln, poor-fair int xln & scat vuggy porosity, scat glauc strk in dolo, chert- off wh

Dolo: ala

Dolo: tan-gry, fn-sub xln, mostly DNS, NSFO, hvy chert-wh, sharp

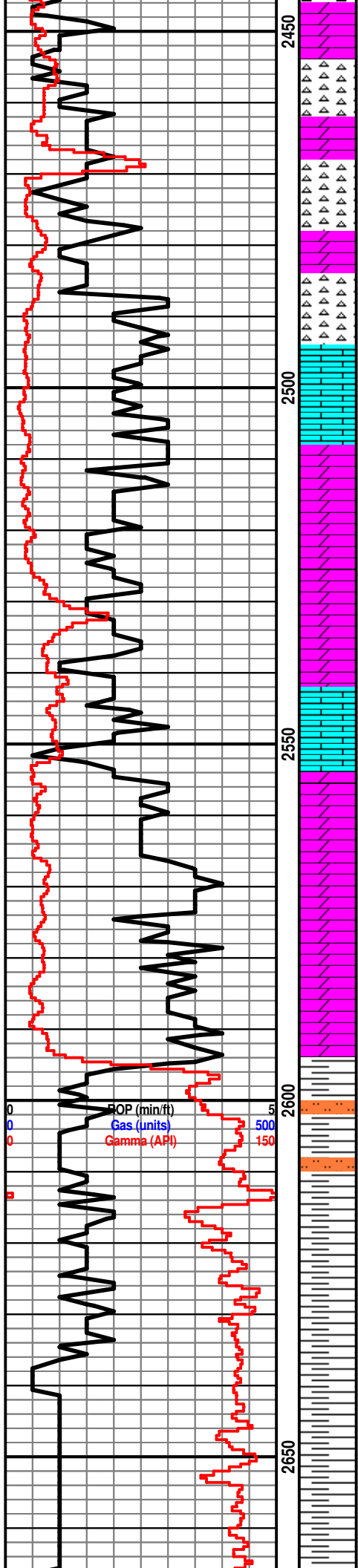
Dolo: off wh-tan, fn-sub xln, mostly DNS, scat chert-off wh, scat qtz: off wh

Dolo: tan-brn, fn-md xln, vry DNS, scat chert-off wh

Dolo: ala, hvy chert-off wh, sharp

Chert: wh-off wh, vry DNS, sharp

Chert: off wh-lt gry, vry DNS, sharp



Chert: ala

Dolo: tan-lt gry, fn-sub xln, mostly DNS, NSFO, scat chert-off wh, scat pyrite

Chert: off wh-lt gry, vry DNS, sharp

Ls: tan-gry, fn xln, poor int xln porosity, NSFO, scat sh: drk gry

Dolo: tan-gry, fn xln, poor int xln porosity, NSFO, scat chert-off wh

Dolo: ala

Ls: tan-brn, fn xln, scat foss, poor-fair int xln porosity, NSFO, scat chalk

Dolo: tan-brn, fn-sub xln, mostly DNS, NSFO, scat chert-off wh, sharp

Dolo: ala

Dolo: tan-brn, fn xln, poor int xln porosity, NSFO, scat chalk, scat chert-off wh, DNS

**Kinderhook 2595' (-1315)**

Sh: lt-drk gry, soft, scat sltst

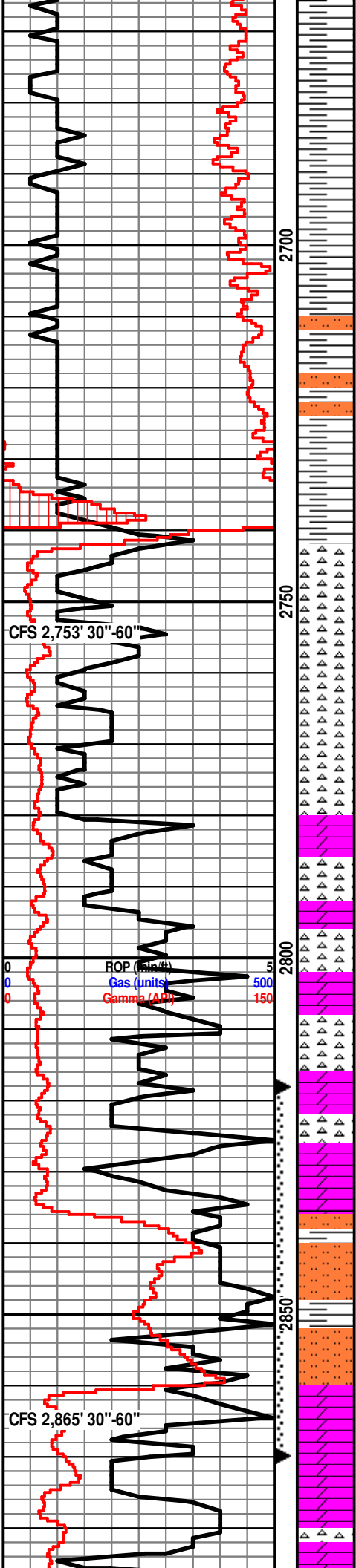
Sh: lt gry, few pcs soft

Sh: ala

Sh: lt gry, scat soft

Sh: lt gry, vry soft

Sh: ala



Sh: lt-drk gry, soft

Sh: ala

Sh: lt-drk gry, soft

Sh: ala, scat sltst

**Hunton 2738' (-1458)**

Chert: off wh-lt gry, fair-good frac porosity, hvy tarry oil stn, fair-good odor, SSFO in cup

Chert: off wh-lt gry, fn-sub xln, mostly DNS, no visible porosity, NSFO

Chert: ala

Dolo: tan-lt gry, fn-sub xln, mostly DNS, scat pyrite

Dolo: ala

Dolo: tan-brn, fn-sub xln, mostly DNS, NSFO

Dolo: tan-lt brn, fn xln, scat int xln porosity, NSFO, scat pyrite

**Maquoketa 2831' (-1551)**

Slstst: drk gry, fn grn, no visible porosity, barren, scat sh: drk gry

Slstst: ala

**Viola 2861' (-1581)**

Dolo: off wh-lt gry, fn-md xln, few pcs crs xln, fair-good int xln porosity, GSFO, fair-good odor

Dolo: off wh-lt gry, fn-md xln, fair-good int xln porosity, mostly barren, NSFO, scat chert-off wh

**DST #1 2,818-70' Viola**

10"-30"-5"-30"

IF: BOB in 1 minute, no blow back on shut in

FF: BOB in 45 seconds, no blow back on shut in

Rec: 1,000' Water (Chl. 11K)

200' Heavy Mud Cut Water (44% M, 56% W)

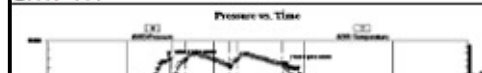
1,200' Total Fluid Recovery

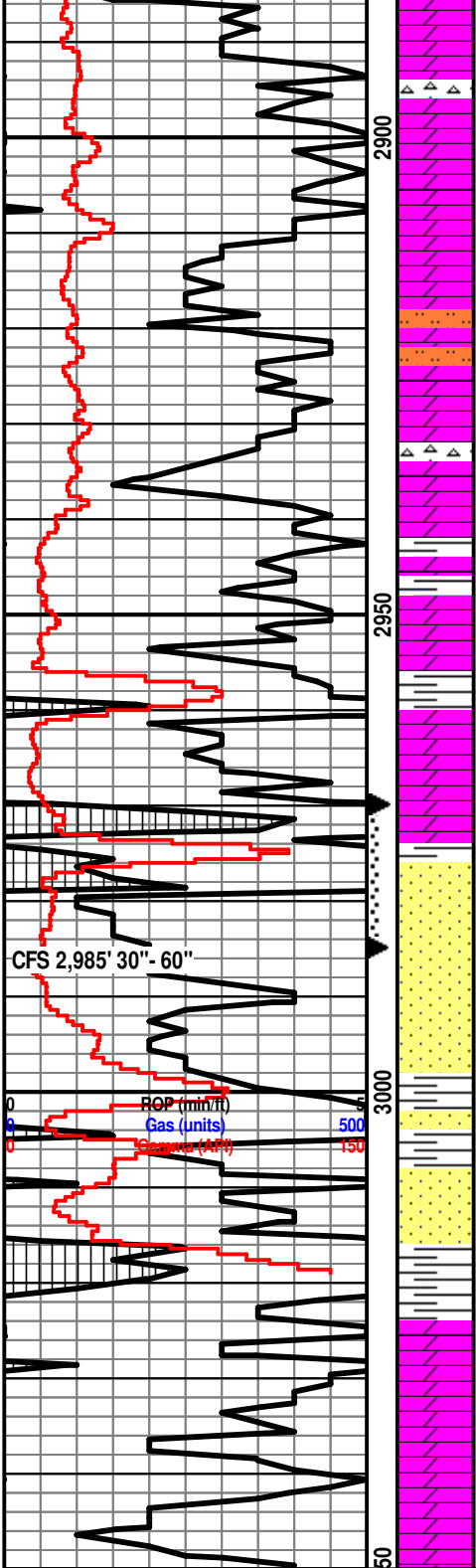
FP: 188-489, 489-604#

SIP: 1,010-1,010#

HP: 1,395-1,387#

BHT: 111°





Dolo: off wh-lt gry, fn-crs xln, mostly DNS, NSFO, scat chert-off wh

Dolo: ala

Dolo: tan-brn, fn-md xln, porr int xln porosity, NSFO, scat sltst

Dolo: tan-brn, fn-md xln, fair int xln porosity, NSFO, scat chert-off wh

Dolo: off wh-tan-brn, fn-md xln, scat int xln porosity, mostly barren, NSFO, scat sh: drk gry

**Simpson Dolomite 2958' (1678)**

Dolo: off wh-tan-brn, fn-md xln, fair int xln porosity, scat oil in porosity, fnt odor

Dolo: off wh-tan, fn-md xln, poor int xln porosity, fair-good oil sat, GSFO, strong odor

**Simpson Sand 2975' (-1695)**

Ss: qtz, off wh, fn-md grn, fairly well rnd, poorly sorted, good int grn porosity, friable good oil sat, GSFO, good odor

Ss: qtz, off wh, vry fn-md grn, fairly well rnd, poorly sorted, fair int grn porosity, mostly barren, NSFO

Ss: qtz, off wh, vry fn-md grn, sub ang, poor int grn porosity, NSFO, scat sh: drk gry-grn

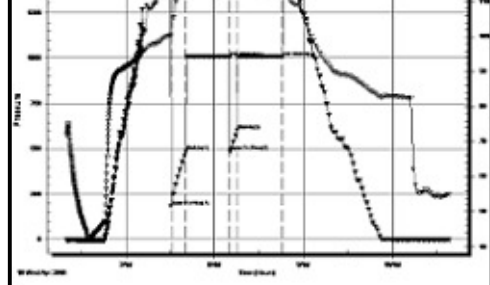
Ss: qtz, off wh, fn-md grn, ang, poor int grn porosity, mostly barren, scat pyrite, scat sh: drk gry-grn

**Arbuckle 3024' (-1744)**

Dolo: off wh-tan-brn, fn xln, mostly DNS, no visible porosity, NSFO, scat pyrite, scat chert-off wh

Dolo: ala

Dolo: tan-brn, fn-sub xln, mostly DNS, NSFO, scat chert-off wh



**DST #2 2,970-85' (Top 10' of Simpson Sand)**

15'-30"-15'-30"

IF: BOB in 10 minutes, no blow back on shut in

FF: BOB in 4 minutes, no blow back on shut in

Rec: 390' Clean Oil

50' Oil Cut Mud (13% O, 87% M)

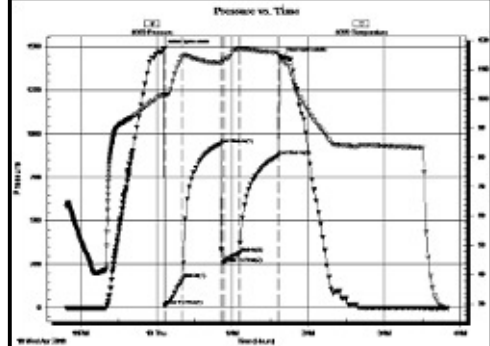
440' Total Fluid Recovery

FP: 16-168, 260-316#

SIP: 941-875#

HP: 1,484-1,441#

BHT: 113°



Final Survey: 3/4 degree