



# Musgrove

Petroleum Geology  
212 Main Street, Claflin KS

## GEOLOGIST'S REPORT

### DRILLING TIME AND SAMPLE LOG

COMPANY John Roy Evans, Oil Co. Inc.

LEASE Penka #26-1

FIELD Snow White North

LOCATION NE-SW-NE-SE (1840' FNL & 975' FEL)

SEC 26 TWSP 17S RGE 12W

COUNTY Barton STATE Kansas

CONTRACTOR Royal Drilling, inc. (Rig #2)

SPUD 12/17/2018 COMP 12/29/2018

RTD 3340' LTD 3338'

MUD UP 2527' TYPE MUD Chemical

#### ELEVATIONS

KB 1814'

DF \_\_\_\_\_

GL 1807'

Measurements Are All  
From KB

#### CASING

SURFACE 8 5/8"@275'

PRODUCTION 5 1/2"@3338'

#### ELECTRICAL SURVEYS

ELI Wireline;  
DIL, CDL/CNL, Micro, Sonic Log

SAMPLES SAVED FROM \_\_\_\_\_ 2600' TO \_\_\_\_\_ RTD

DRILLING TIME KEPT FROM \_\_\_\_\_ 2600' TO \_\_\_\_\_ RTD

SAMPLES EXAMINED FROM \_\_\_\_\_ 2600' TO \_\_\_\_\_ RTD

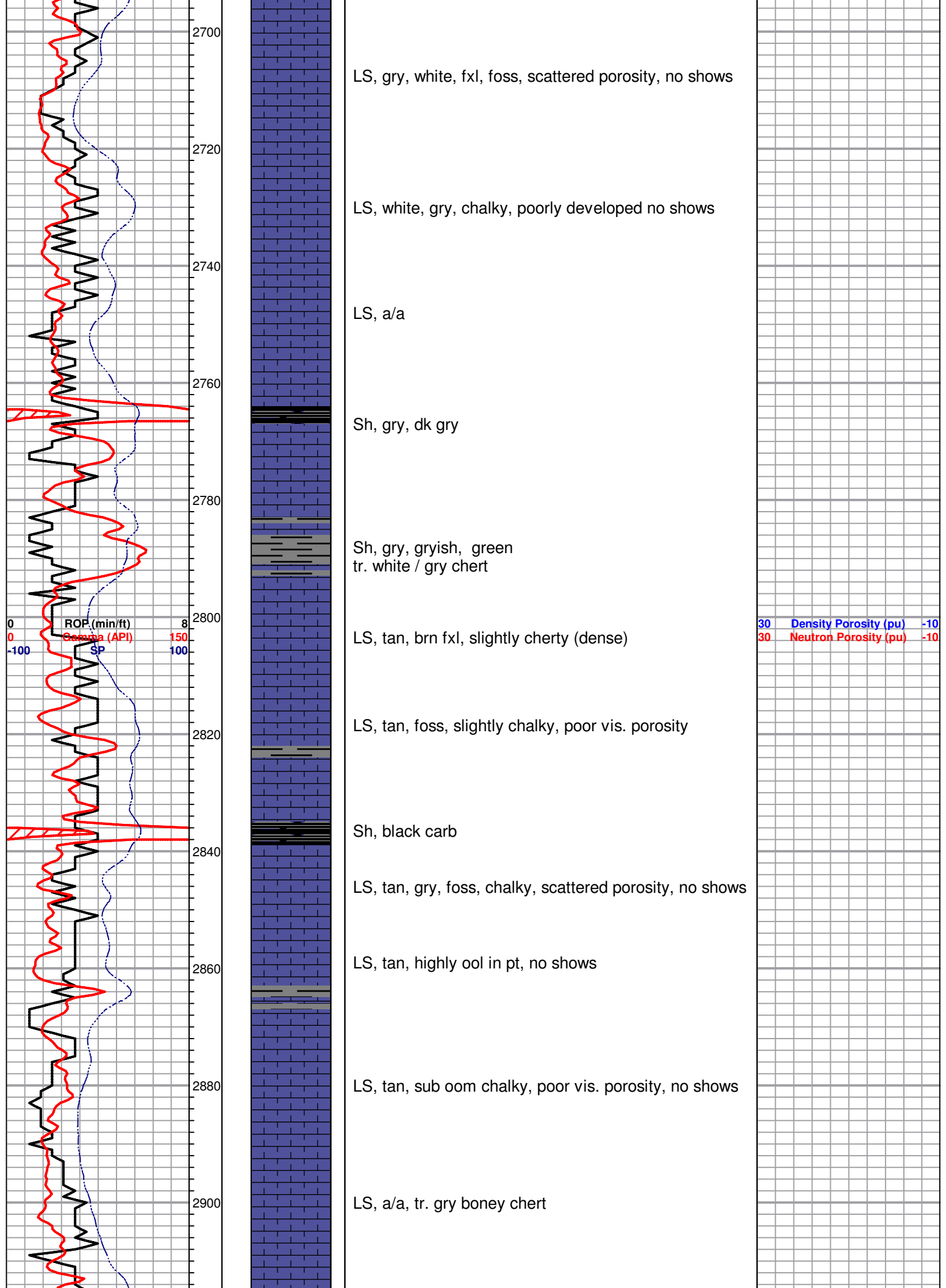
GEOLOGICAL SUPERVISION FROM 2640' TO \_\_\_\_\_ RTD

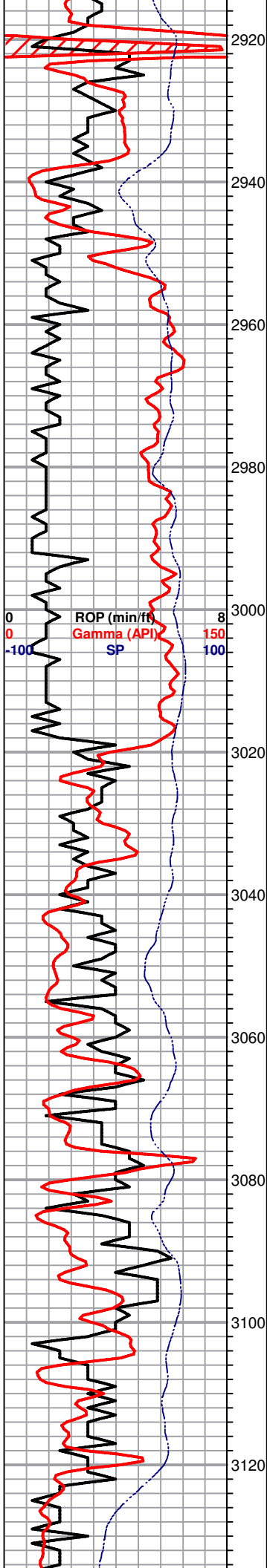
GEOLOGIST ON WELL Jim Musgrove (2600'-3190') & Wyatt Urban (3190'-RTD)

| FORMATION TOPS | LOG          | <del>SAMPLES</del> |
|----------------|--------------|--------------------|
| Anhydrite      | 653 (+1161)  | RTD 3340 (-1526)   |
| B. Anhydrite   | 680 (+1134)  | LTD 3338 (-1524)   |
| Topeka         | 2626 (-812)  |                    |
| Heebner        | 2919 (-1105) |                    |
| Toronto        | 2937 (-1123) |                    |
| Douglas        | 2948 (-1134) |                    |

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|--|--|----|--|
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|  |  |    |  |
|  |  | 26 |  |







**Heebner 2918.0 (-1104.0)**

Sh, black carb

**Toronto 2937.0 (-1123.0)**

LS, white, gry, foss, scattered foss. cast porosity, lt. brn / brn stain, nsfo, ??? odor

**Douglas 2948.0 (-1134.0)**

Sh, gry, maroon, rusty brn gryish green, silty

Tr. sd. gryish green, vfg. mica, poor vis. porosity no shows

Sh, a/a , tr. sd. a/a

**Brown Lime 3018.0 (-1204.0)**

LS, brn, tan, fxl, slightly chert

Sh, gry, waxey, silty

**Lansing 3036.0 (-1222.0)**

LS, tan, fxl, foss in pt. , chalky, tr. brn stain, nsfo, ft. odor

LS white, gry, chalky, poorly developed porosity

LS, white, ool, slightly chalky, lt. brn / golden brn stain, tr. fo, no odor

LS, gry, foss, scattered vuggy porosity, golden brn stain, nsfo, no odor

LS, tan, ool, slightly cherty, brn stain, nsfo, no odor

LS, tan, oom, fair , good oom porosity (barren)

**DST#1 3161-3195**  
30-30-45-60

**1st Open:**  
BOB 5 mins.

**1st Close:**  
Built to 3/4 "

**2nd Open:**  
BOB 30 sec.

**Recovery:**  
1275' GIP

50' HOCM  
(30%O, 70%M)

63' Muddy Oil  
(40%O, 60%M)

**Pressures:**  
ISIP 863 psi  
FSIP 894 psi  
IFP 12-34 psi  
FFP 38-59 psi  
HSH 1441 - 1434 psi

**DST#2 3198-3250**  
30-30-45-60

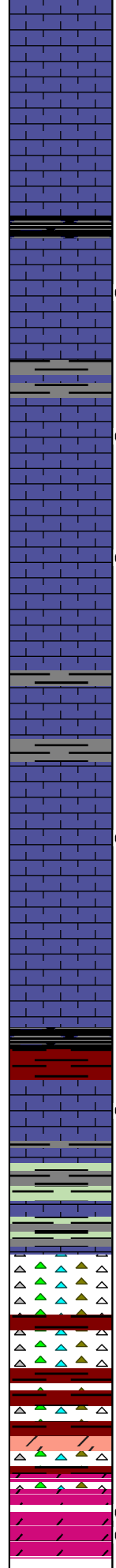
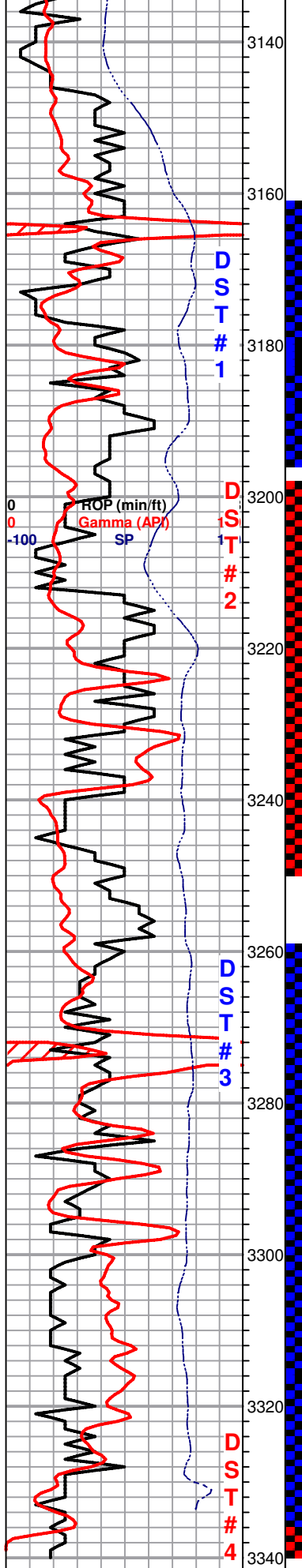
**1st Open:**  
BOB 4 mins.

**1st Close:**  
Built to 12"

**2nd Open:**  
BOB 1.5 mins

**2nd Close:**  
BOB 20.5 mins.

**Recovery:**  
972' GIP  
855' SLGCMO  
(10%G, 38%O, 52%



LS, tan, fxl, slightly cherty, dense

Sh, black carb

● LS, cream, oom, fair oom porosity, chalky in part, brown spty stain, sfo, faint -fair odor

● LS, white, highly foss/ ool, fair - good porosity, brown - dk brn stain/ sat., sfo, ft. odor

● LS, tan, gry, fxl, dense, poor vis. porosity, scattered vuggy type porosity, on few, tr. brn stain, spty sfo, few vis. gas bubbles

Slug dk gry sh, platey+ LS, gry, tan, fxl, dense, few foss, no shows

● LS, tan, gry, foss, sub oom, poorly developed vuggy porosity, poor inner dev. porosity, dk brn stain, spty sfo, few vis. gas bubbles

LS, dk gry, fxl, dense poor scattered porosity, sl. cherty

**Base KC 3270.0 (-1456.0)**

Sh, blk carb, gry, maroon, soft,

○ LS, tan, gry, fxl, poor vis. porosity, heavily fract. poor vis. porosity, sl. chalky, tr. gry- brn stain, tr. spty dk brn- blk spty sfo, ft. odor

**Conglomerate 3290.0 (-1476.0)**

Sh, maroon, green, aqua green, tr. LS, tan, sdy/ gran. nsfo, no odor

Sh, maroon, soft, v.c. cherts, tr. sd. white, vfg. no shows, no odor

Sh, a/a, tr. chert, tan, brn, tr. ool, chert, no shows

Tr. weathered, dol., poor scattered porosity, tr. brn stain, sfo, odor

**Arbuckle 3328.0 (-1514.0)**

● Dol. f- med xln, fair - good scattered porosity, golden brn stain, spty sfo, odor tr. pyrite

● 40"- Dol. white, tan, scattered p.p. porosity, fair inxln porosity, tr. brn stain, dk brown sfo, faint odor

**RTD 3340.0 (-1526.0)**

**LTD 3338.0 (-1524.0)**

**Pressures:**  
 ISIP 996 psi  
 FSIP 993 psi  
 IFP 25-173 psi  
 FFP 201-326 psi  
 HSH 1488-1474 psi

**DST#3 3260-3334**  
 30-20-15- pulled

**1st Open:**  
 Weak surface blow

**2nd Open:**  
 Dead

**Recovered:**  
 10' Clean Oil

10' SLMCO  
 (95%O, 5%M)

63' HOCM  
 (30%O, 70%M)

**Pressures:**  
 ISIP 981 psi  
 FSIP 0 psi  
 IFP 11-31 psi  
 FFP 33-42 psi  
 HSH 1531-1525 psi

**DST #4 3260-3340**  
 30-30-30-30

**1st Open:**  
 Fair blow  
 10" @ 30 mins.

**2nd Open:**  
 Fair blow  
 7" @30 mins

**Recovery:**  
 32' Clean Oil

30' SLOCM  
 (15%O, 85% M)

M)

LTD 3336.0 (-1524.0)

3360

3380

63' SLOCM  
(5%O, 95%M)

Pressures:  
ISIP 1035 psi  
FSIP 966 psi  
IFP 15-39 psi  
FFP 41-61 psi  
HSH 1512-1212 psi