



Mudgrove

PETROLEUM CORPORATION
Clafin, Kansas

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY R.F. Hembree Oil LLC.
 LEASE Beau #1
 FIELD Eakin NW
 LOCATION S2-S2-SW-NW
 SEC 22 TWSP 21S RGE 21W
 COUNTY Hodgeman STATE Kansas

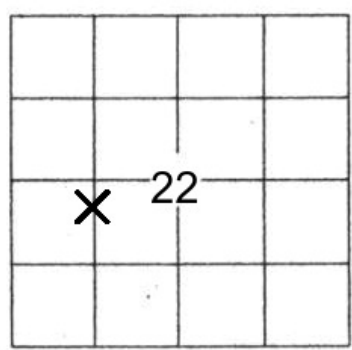
ELEVATIONS
 KB 2136
 DF _____
 GL 2129'
 Measurements Are All
 From KB

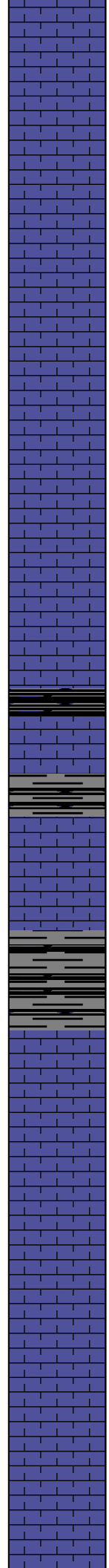
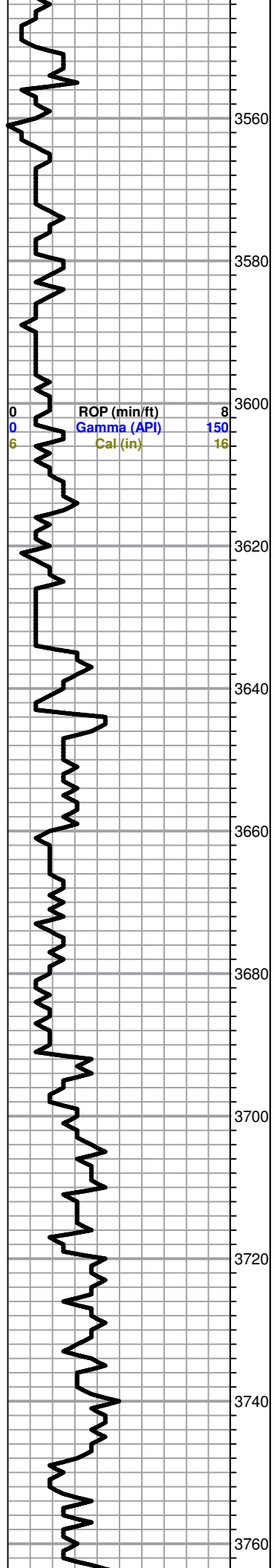
CONTRACTOR Pickrell Drilling, inc (Rig #10)
 SPUD 11/16/2018 COMP 11/25/2018
 RTD 4292' LTD _____
 MUD UP 700' TYPE MUD Chemical

CASING
 SURFACE 8 5/8" @ 1262'
 PRODUCTION _____
 ELECTRICAL SURVEYS
 NONE

SAMPLES SAVED FROM 3500' TO RTD
 DRILLING TIME KEPT FROM 3500' TO RTD
 SAMPLES EXAMINED FROM 3500' TO RTD
 GEOLOGICAL SUPERVISION FROM 3540' TO RTD
 GEOLOGIST ON WELL Wyatt Urban

FORMATION TOPS	LOG		SAMPLES
Anhydrite	1254	(+882)	
B. Anhydrite	1279	(+857)	
Heebner	3641	(-1505)	
Toronto	3658	(-1522)	
Lansing	3690	(-1554)	
Base KC	4055	(-1919)	
Ft. Scott	4213	(-2073)	
Cherokee	4231	(-2095)	
Miss	4271	(-2135)	
RTD	4292	(-2156)	





Tr. LS white cream, foss fair scattered porosity, chalky in pts, no shows,

3560

LS, tan, cream, foss, scattered p.p porosity, slightly chalky, no shows

3580

LS a/a, tr. white, tan cherts, no shows

3600

ROP (min/ft) 8
Gamma (API) 150
Cal (in) 16

Total Gas (units) 100
C1 (units) 100
C2 (units) 100
C3 (units) 100
C4 (units) 100

LS, tan, cream, foss, p.p. porosity, chalky

3620

LS, a/a , tr. white/ boney foss cherts

3640

Heebner 3641.0 (-1505.0)

Sh black carb

3640

LS, tan, cream fxl, dense cherty in pts, no show

3660

Toronto 3658.0 (-1522.0)

LS, cream tan foss, poor vis porosity chalky nsfo, no odor

3660

abd, Sh, gry, dk gry, maroon, silty,

3680

Lansing 3690.0 (-1554.0)

LS, cream, tan, scattered p.p. porosity, sl. chalky, no shows

3700

Lg. amnts of metal in samples "Shavings"

LS, a/a, inc. in chalk, no shows, no odor

3720

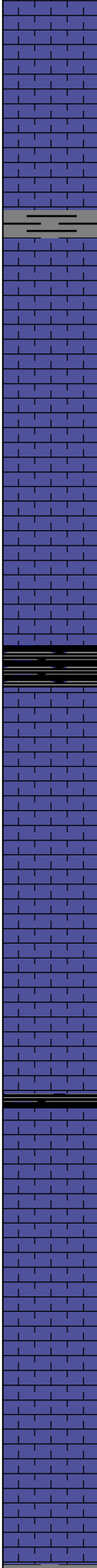
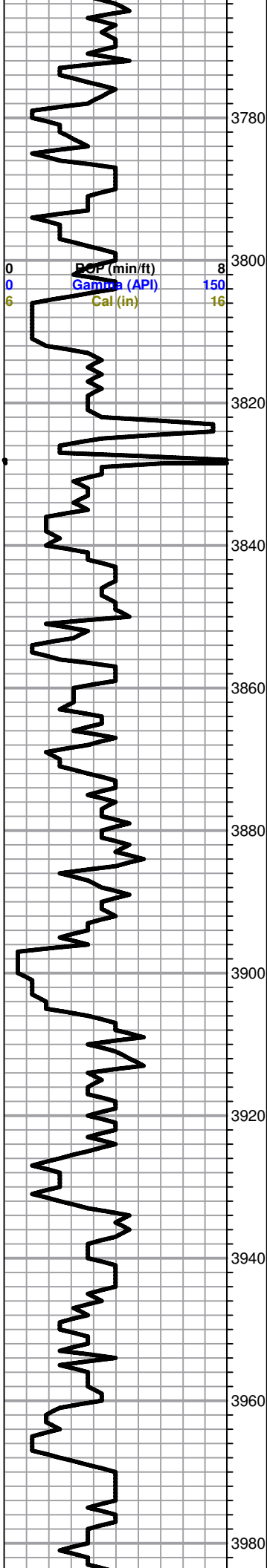
LS, tan, cream, ool, poorly developed, chalky, no shows

3740

LS, white, tan, foss, poor scattered p.p. porosity, sl. chalky, no shows,

3760

LS, tan, buff, mottled, few foss, chalky no shows



LS, tan, cream, fxl, poor vis. porosity, v. chalky, tr .
 boney white cherts , no shows

Sh, gry, maroon

LS, tan, white, foss/ ool, poor scattered porosity,

LS, tan, cream, foss, poor - fair scattered vis. porosity.
 tr. white, tan, ool cherts, no shows

Slug black carb sh.

LS, tan, brn, ool/ oom, good vuggy porosity, chalky ,no
 shows barren

LS tan, cream, foss, / vuggy p.p. type porosity no
 shows
 Tr. LS brn fxl, dense no shows

Slug black carb sh.

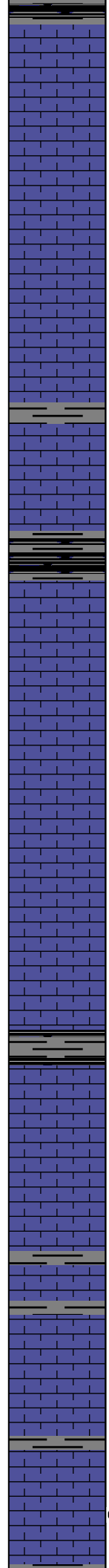
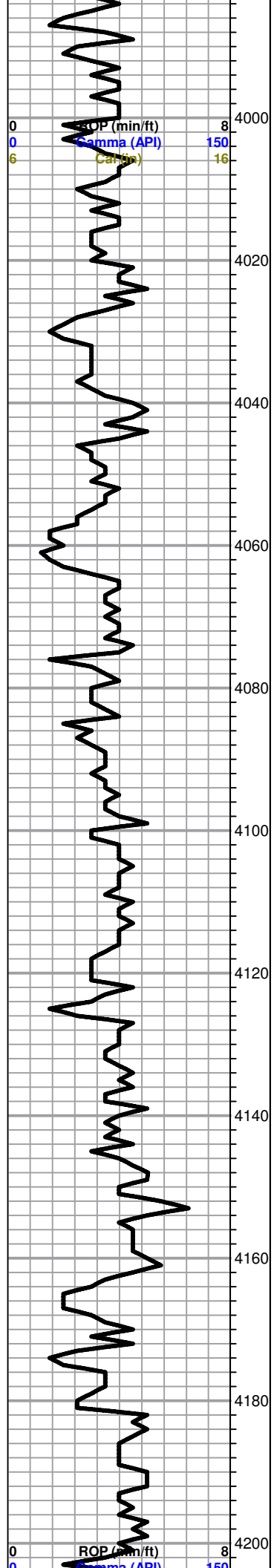
LS, tan, cream, ool/ oom, good vuggy porosity, sl.
 chalky, no shows

LS, tan, brn fxl, dense, no shows

LS, tan, cream, vuggy porosity, chalky, no shows

Tr. Sh black brn

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100



Tr. Sh, black, brn

Tr. LS, tan, oom, fair oom porosity, no shows

LS, brn, sl. chalky, poor scattered p.p. type porosity, no shows

Slug shale , aqua green waxey - silty

LS, brn, dense, few foss, no shows

BKC 4055.0 (-1919.0)

Sh, gry, green, maroon

LS, white, cream, poor scattered porosity, sl. chalky, no shows, tr. pyrite

LS, tan, ool, chalky, no shows, tr. tan & white, cherts

LS, tan, ool, chalky, no shows, tr. tan, white cherts

Sh, gry- dk gr

LS, tan, buff, few foss, ool, poorly developed p.p. porosity, sl. chalky

Sh, gry, blk, few maroon

Chert white, boney gry- poor scattered- vuggy porosity,
Sh, a/a
60 min sample decrease of SFO, ft. odor

Tr. LS, white chalky, tr. brn stain (v. weak), nsfo, no odor

Sh. blk carb

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

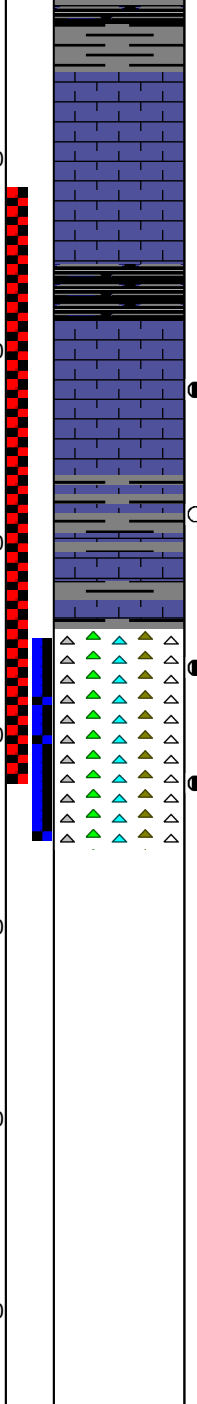
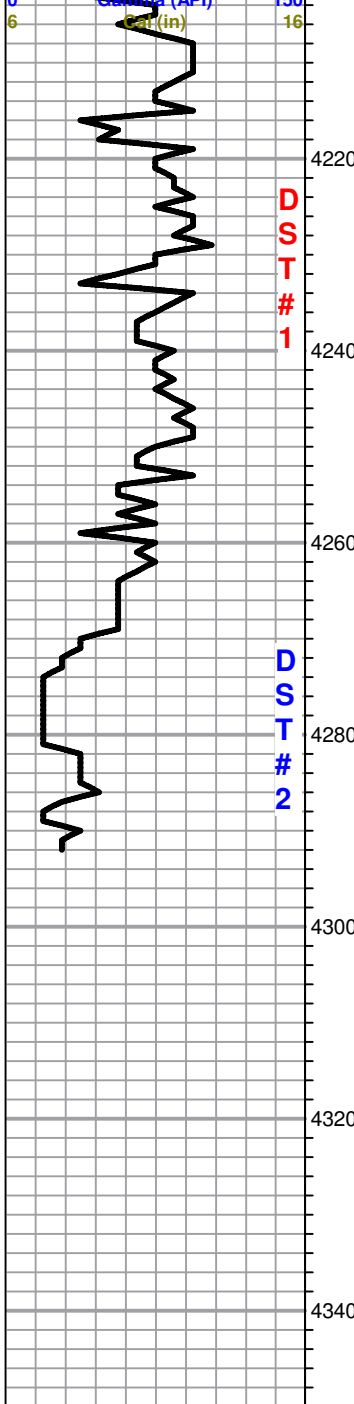
DST#1 4224-4284

45-45-45-45

1st Open:
Weak building blow
6"

2nd Open:
Weak : built to 3"

Recovery:
82' OWCM
(5%O 5%W 90%M)



Ft. Scott 4213.0 (-2073.0)

LS, tan, brn sl. chalky, no shows

LS, tan, brn fxl, dense, cherty, no shows

Cherokee 4231.0 (-2095.0)

Sh, black carb, dk gry

LS, brn, fxl, heavily fractured, dense, tr. blk to dark brn stain, spotty lt. brn sfo, few vis gas bubbles. fair odor

LS, cream, white, chalky, few sl. dol., fair scattered porosity, tr. blk stain, fair odor, nsfo

Miss. 4271.0 (-2135.0)

Chert white/ boney, trip, scattered p.p. porosity, sl. trip. tr. blk stain, golden brn SFO, faint odor (inc. odor in 40 min. sample)

Chert, white, boney/ gry, poor scattered vuggy porosity, tr. brn-blk stain, poor spotty sfo, faint odor, 60 min. sample dec. SFO & odor

RTD 4292.0 (-2156.0)

Pressures:

ISIP 396 psi
 FSIP 500 psi
 IFP 21-40 psi
 FFP 44-52 psi
 HSH 2155-2136 psi

DST#2 4274-4292

45-45-30-30

1st Open:

Weak building 5.5"

2nd Open:

Weak; 2.5"

Recovery:

10' Clean Oil

55' Muddy Water
 (25%M, 75%W)

Pressures:

ISIP 704 psi
 FSIP 386 psi
 IFP 19-32 psi
 FFP 32-43 psi
 HSH 2209-2091 psi