



Musgrove

Petroleum Geology
212 Main Street, Claflin KS

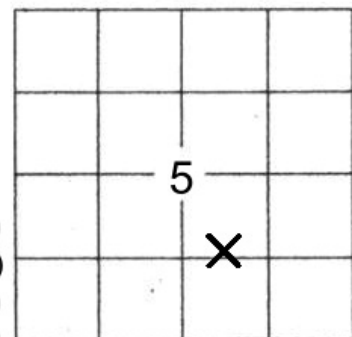
GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY <u>Grady Bolding, Corp</u>	ELEVATIONS
LEASE <u>Schloctermeier #7</u>	KB <u>1816'</u>
FIELD <u>St. Peter</u>	DF _____
LOCATION <u>NW-NE-SW-SE (1260' FSL& 1700' FEL)</u>	GL <u>1808'</u>
SEC <u>5</u> TWSP <u>19S</u> RGE <u>11W</u>	Measurements Are All From <u>KB</u>
COUNTY <u>Barton</u> STATE <u>Kansas</u>	
CONTRACTOR <u>Southwind Drilling, Inc. (Rig # 3)</u>	CASING
SPUD <u>07/14/2018</u> COMP <u>07/19/2018</u>	SURFACE <u>8 5/8"@305'</u>
RTD <u>3460'</u> LTD <u>3461'</u>	PRODUCTION <u>5 1/2"@ 3452'</u>
MUD UP <u>2700'</u> TYPE MUD <u>Chemical</u>	ELECTRICAL SURVEYS
	ELI; CDL/CNL
	MEL / DIL

SAMPLES SAVED FROM 2700' TO RTD
 DRILLING TIME KEPT FROM 2700' TO RTD
 SAMPLES EXAMINED FROM 2700' TO RTD
 GEOLOGICAL SUPERVISION FROM 2850' TO RTD
 GEOLOGIST ON WELL Wyatt Urban

FORMATION TOPS	LOG		SAMPLES	
Anhydrite	608	(+1208)	607	(+1206)
B. Anhydrite	634	(+1182)	632	(+1184)
Heebner	2950	(-1134)	2950	(-1134)
Toronto	2964	(-1148)	2966	(-1150)
Brown Lime	3067	(-1251)	3065	(-1249)
Lansing	3083	(-1267)	3085	(-1269)
Base KC	3330	(-1514)	3326	(-1510)
Congl.	3339	(-1523)	3343	(-1527)
Arbuckle	3383	(-1567)	3383	(-1567)
RTD	3460	(-1644)	3460	(-1644)
LTD	3461	(-1645)	3461	(-1645)



ROCK TYPES



OTHER SYMBOLS

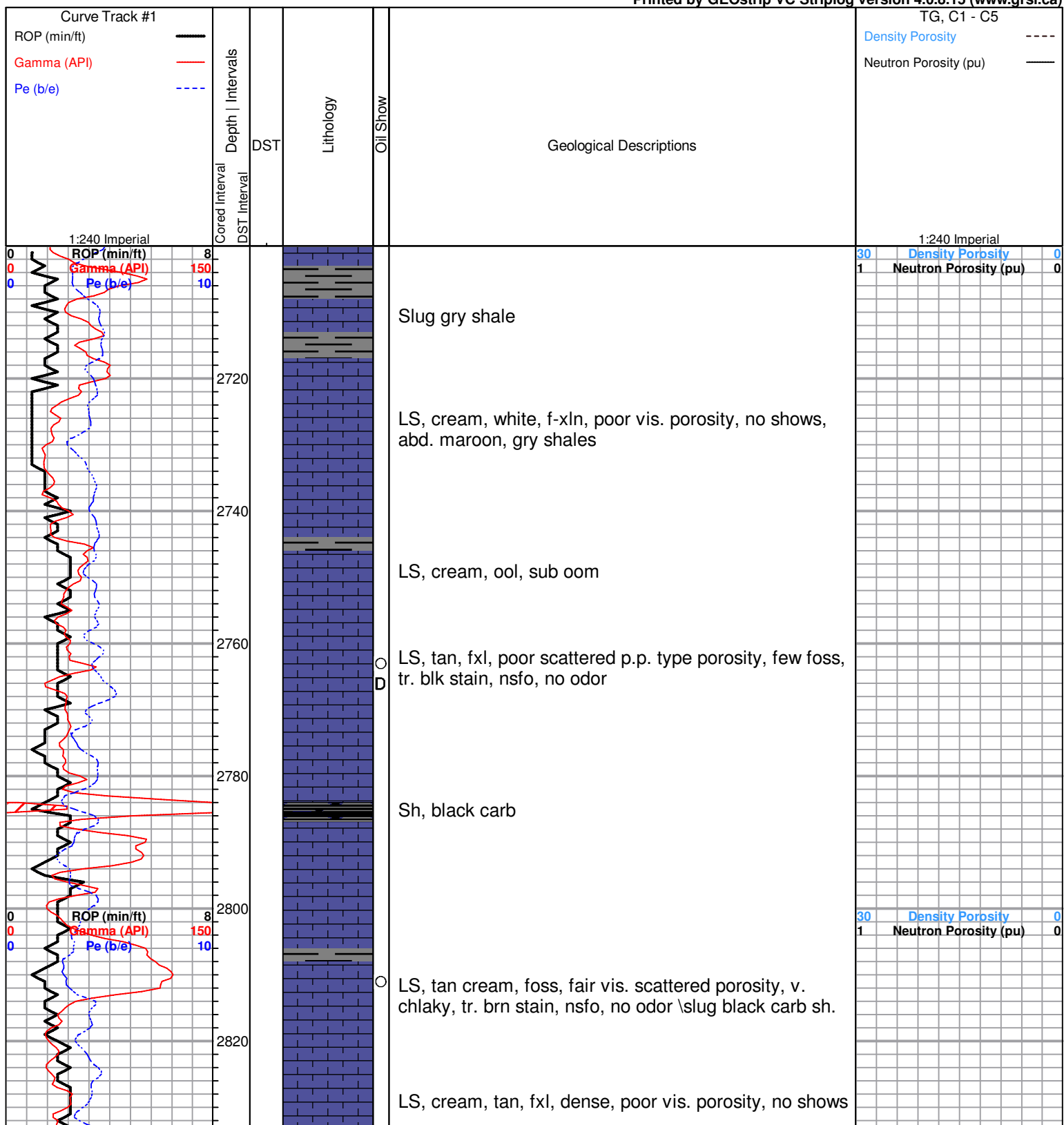
Oil Show

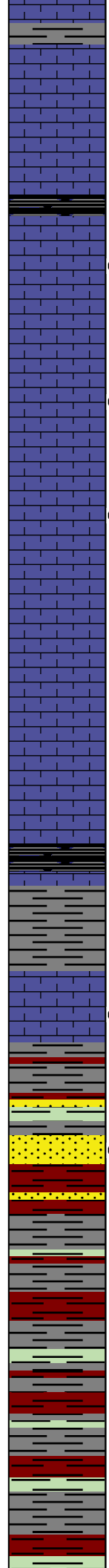
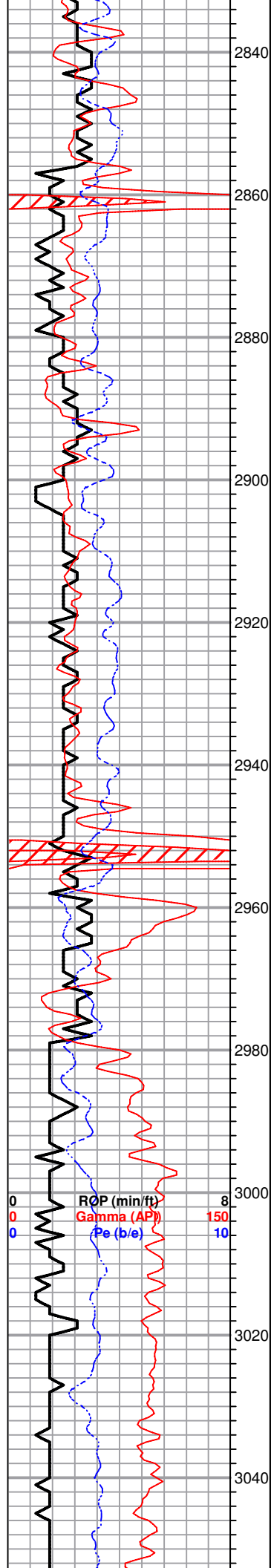
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- D Dead Oil Stn
- Fluorescence
- * Gas

DST

- DST Int
- DST alt
- Core
- tail pipe

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)





LS, cream, tan, fxl, poor vis. porosity, no shows

2840

Sh, black carb

2860

LS, cream, gry, f-med xln, scattered vis porosity, lt. golden brn stain, tr. sfo/sat. faint odor

2880

LS, tan / buff, dense --> cherty, poor scattered p.p. type porosity, tr. blk stain, tr. sfo, ft. odor

2900

LS, cream, white, foss, poor to fair vis. porosity, tr. dk brn / black stain, tr. spty sfo, no odor

2920

LS, cream, white, fxl, dense, poor vis. porosity, cherty, no shows

2940

LS, a/a, tr. tan, and brn cherts

HEEBNER 2950.0 (-1134.0)

Sh.black carb

2960

Sh, gry, dk gry, silty

TORONTO 2966.0 (-1150.0)

LS, tan, buff, dense, poor vis. porosity, tr. spty brn-gry stain, tr. spty sfo, no odor

2980

DOUGLAS 2978.0 (-1178.0)

Sh, gry, greenish, silty, few soft

3000

Tr. sd. gry, vfg, mica, tr. brn stain, nsfo, no odor

Sh gry, dk gry, few green, tr. sd. a/a

3020

Sh a/a

3040

Sh, gry, dk gry, few maroon, tr. gry mica. sand

DST#1 3070-3118

30-30-45-45

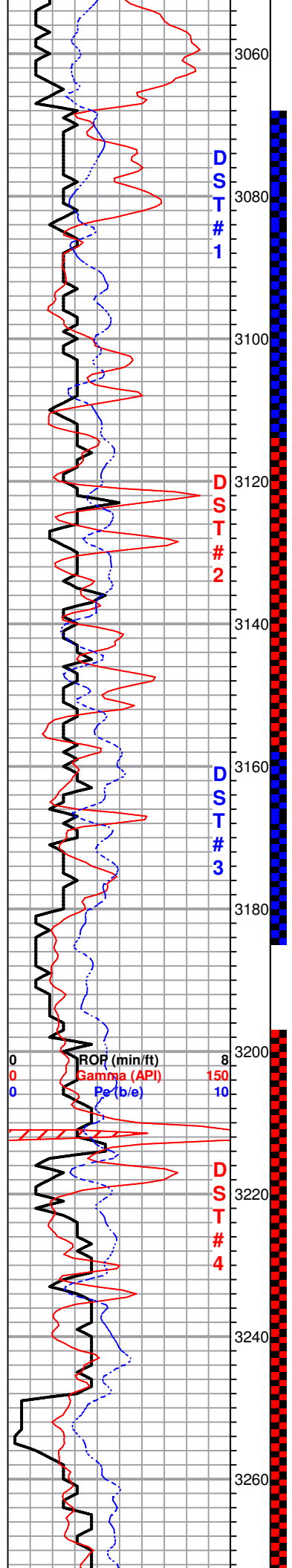
**1st Open:
BOB 6.5 mins.**

**2nd Open:
BOB inst.**

**Recovery:
1575' GIP**

36' Mud w/ tr. oil

**Pressures:
ISIP 335 psi
FSIP 368 psi
IEP 15.18 psi**



BROWN LIME 3065.0 (-1249.0)

LS, brn, dk brn fxl, cherty

LANSING 3085.0 (-1269.0)

LS, cream, white, foss, fr. oom / vuggy type porosity, lt. brn stain, golden brown sfo/sat, ft. odor

LS, cream, white, cherty, dense

LS, white, ool/oom, good oom, vuggy porosity, lt. goldn brn stain, sfo, good odor

LS, tan, fxl, dense, poor vis. porosity, no shows, abd. gry silty shales

LS, tan, cream, foss/frag. ool, poor vis. scattered p.p. type porosity, chalky, lt. golden brown sfo, strong odor

LS, tan, med-fn xln, fair scattered porosity, ool/foss frag., lt. golden brown stain, dk brn spty sfo, strong odor

Sh, black carb

LS, tan, buff, fxl, few foss, scatt. p.p. type porosity, tr. brn stain, tr. spty sfo, - fair odor

LS, tan, foss/ool, good vuggy type porosity, chalky, nsfo, tr. brn/ blk stain, odor

LS, white, cream, foss, poor vis. porosity, nsfo, tr. black stain, no odor

Sh, black carb

LS, tan, tan, oom, porosity, sl. chalky, tr. brn- blk stain, nsfo, ??? odor

LS, tan, oom, fair vuggy porosity, chalky, tr. brn stain, tr. sfo

LS, tan, oom, good vuggy type oom porosity, brn staining, sfo, vis. gas bubbles, strong odor

LS, white, cream, fxl, dense, poor scattered vis. porosity, nsfo, no odor

IFP 15-18 psi
FFP 335-27 psi
HSH 1444 psi

DST#2 3116-3164
30-30-45-45

1st Open:
BOB 4 mins.

2nd Open:
BOB inst.

Recovery:
2646' GIP
40' SLOGGM
(22%G, 8%O, 70%M)

63' SLWCMOCG
(53' G, 25%O, 2%W,
20%M)

Pressures:
ISIP 214 psi
FSIP 328 psi
IFP 9-36 psi
FFP 23-56 psi
HSH 1465-1457 psi

DST#3 3159-3185
60-30-30-30

***Tool stuck open on**

1st Open:
GTS on 2nd open:

Recovery:
3024' GIP

45' Mud tr. oil on tool

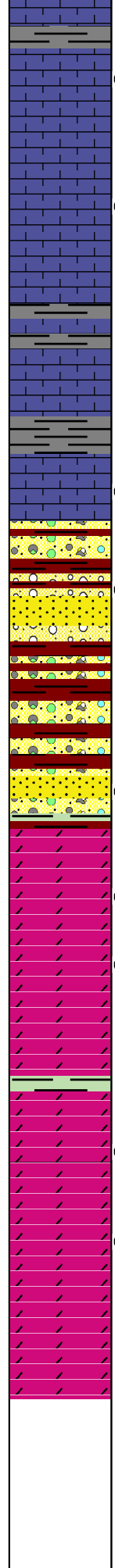
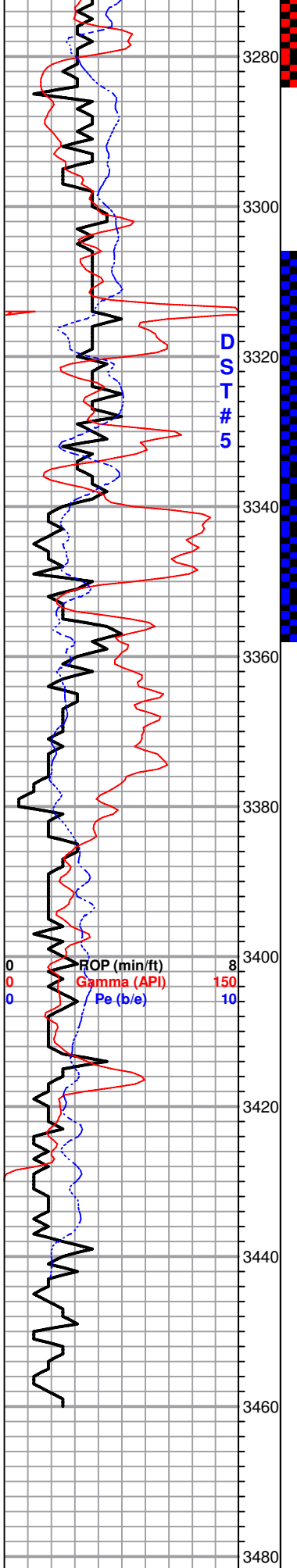
Pressures:
ISIP 423 psi
FSIP 421 psi
IFP 14-21 psi
FFP 19-34 psi
HSH 1470-1461 psi

***Gas Gauged**
5" @ 2 psi; 1.231 MCF/D
10" @ 6 psi; 2.218 "
15" @ 7 psi; 2.419 "
20" @ 9 psi; 2.793 "
25" @ 12 psi; 3.200 "
30" @ 13 psi; 3.456 "

DST#4 3196-3248
30-30-45-45

1st Open:
BOB 9 mins.

2nd Open:



LS, white, cream, few foss, scattered vuggy / p.p. type porosity, tr. brn stain on few, tr. sfo, ft. odor

LS, white, cream, poor vis, porosity, tr. dk brn stain on few, nsfo, ??? odor

Sh, gry, silty

LS, white, fxl, poor vis. porosity, no shows

BKC 3326.0 (-1510.0)

Sh, gry, maroon, green, waxey

LS, white, cream, fxl, poor scattered porosity, tr. blk stain, nsfo, tr. orange, tan, cherts & V.C. Sh,

CONGLOMERATE 3343.0 (-1527.0)

Sd. tan, f-med grain, subrounded, well sorted, friable, lt. brn stn, sfo, good odor,

Sh, gry, maroon, green, few soft, abundant v.c. chert

Sh, a/a, tr. sd. gry, sub angular, poorly sorted, tr. brn/blk stain on few (sh staining??) nsfo, ???odor

ARBUCKLE 3383.0 (-1567.0)

Dol. tan, brn suc. pr-fair scattered vis. porosity, tr. brn stain, tr. sfo, odor

Doo. tan, buff, suc./ scattered vuggy porosity, tr. brn stain, tr. sfo, fair odor

tr. white, dol. suc. nsfo, odor

Tr. sh, green, aqua green, tr. white chert (ool)

Dol. white/ cream, fxl, scattered vuggy type porosity, tr. brn/ golden brn stain, tr. spty dk brn sfo, odor

Dol. tan, buff, fxl, dense, scattered p.p. type porosity, tr. dk brn/blk stain on few (v. weak), strong odor, tr. pyrite abundant white/boney cherts

RTD 3460.0 (-1644.0)

LTD 3461.0 (-1645.0)

2nd Open.
BOB 45 sec.

Recovery:
945' GIP

45' SLOGGM
(8%G, 2%O, 90%M)

63' SLW&OCGM
(29%G, 15%O, 1%W, 55%M)

63' SLW&OCGM
(43%G, 15%O, 2%W, 40%M)

Pressures:
ISIP 302 psi
FSIP 417 psi
IFP 12-52 psi
FFP 59-88 psi
HSH 1438-1479 psi

DST#5 3312-3358
30-30-30-30

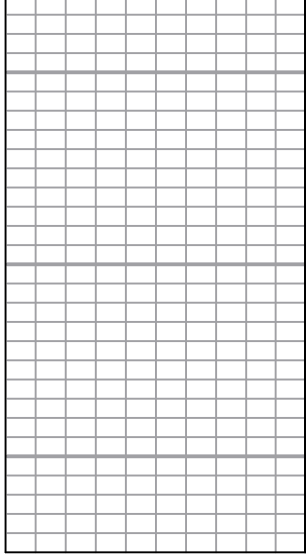
1st Open:
Weak Surface blow

2nd Open:
Weak Surface blow

Recovery:
1' Clean Oil

24' OCM
(10%O, 90%M)

Pressures:
ISIP 732 psi
FSIP 475 psi
IFP 9-13 psi
FFP 15-16 psi
HSH 1559-1543 psi



3500

3520

3540

