

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

BACH OIL PRODUCTION

WELL: ARCHER #1

LOC.: 2100' FNL & 990' FEL
SEC. 9-4-20W

PHILLIPS COUNTY, KANSAS
API: 15-147-20641-00-00

DRILLING CONTR.: MURFIN RIG #16
SPUD: 04-19-11 COMP: 04-23-11
MUD UP: 2800' TYPE MUD: CHEM.
DRILL TIME: 2900-RTD
RTD: 3530' LTD: 3530'
SAMPLES SAVED: 2900'-RTD
GEOLOGIST: ROBERT J. PETERSEN

ELEVATION

KB: 2070'
GL: 2065'

LOG MEASURED FROM: KB

SURFACE CASING

8 5/8" surface csg.
Set @220' KB.
Cem. w/160sx Common,
3% CC, 2% Gel.

PRODUCTION CASING

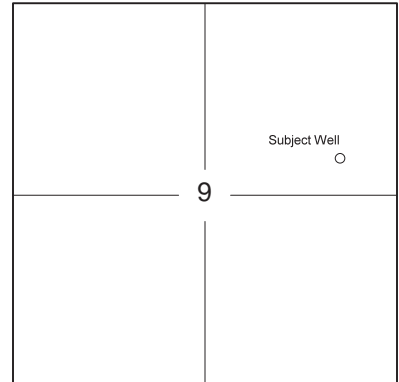
5 1/2" Set @3530'

WELL LOG SURVEYS

RAG

ELECTRIC LOG TOPS

FORMATION	DEPTH	DATUM	POSITION
Stone Corral	1680	+390	+1
Base Stone Corral	1707	+363	+1
Topeka	3049	-979	+22
Heebner	3243	-1173	+24
Toronto	3270	-1200	+25
Lansing	3286	-1216	+27
Base Kansas City	3485	-1415	+24



REFERENCE WELL:

F&M
Krouse #1
C SW SW
4-4-20W
2107 KB

REMARKS AND RECOMMENDATIONS

Production casing has been run to further test this well for commercial production.

Respectfully submitted,

Robert J. Petersen April 26, 2011

DAILY REPORT

@7:00 A.M.

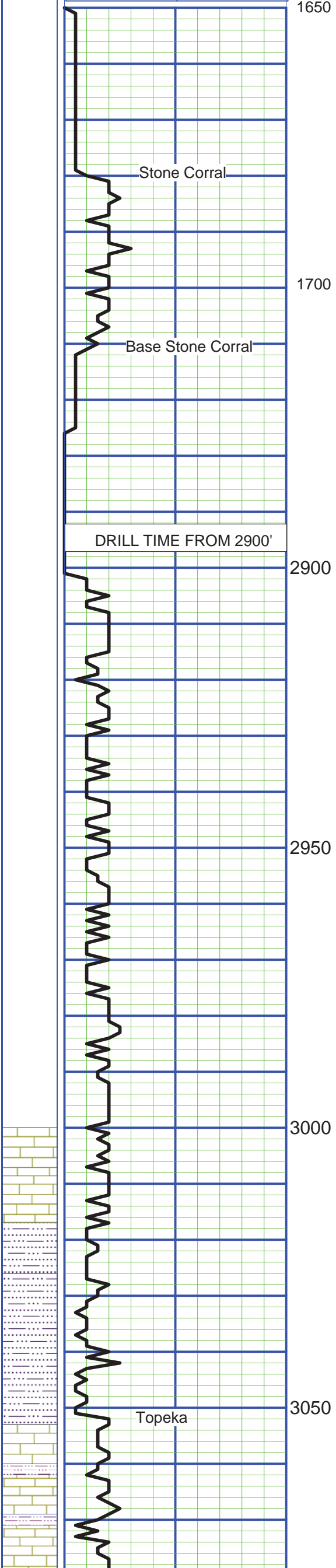
4-19-11 MIRU, SPUD
4-20-11 740' Drilling
4-21-11 2390' Drilling
4-22-11 3240' Drilling
4-23-11 3530' RTD Logging

DRILL TIME MIN./FT

0

5

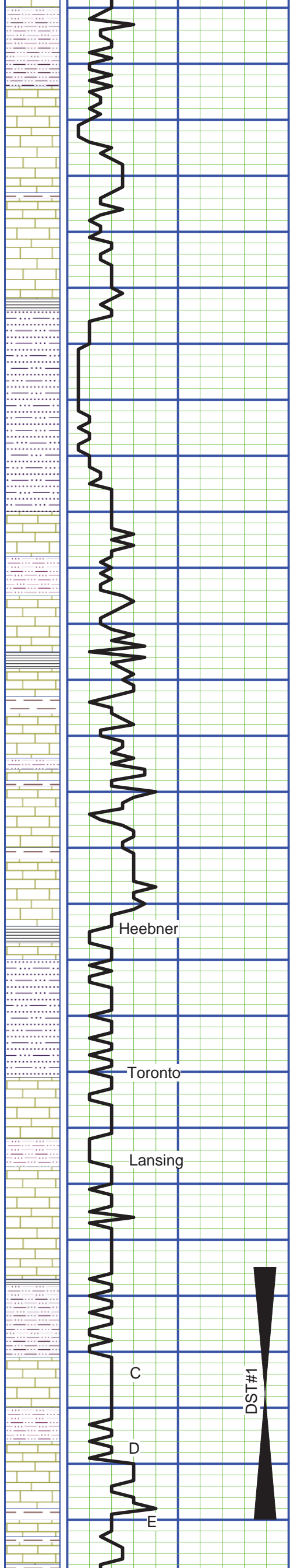
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SAMPLE DESCRIPTION

- LS; Cream/lt gray, fine crystalline to dense, chalky + SH; Red (20)
- LS; Lt gray/cream, fine crystalline to dense, foss, chalky + SH; Gray, silty (40)
- SH; Black (50)
- LS; Cream/lt gray, fine crystalline, sl dolomitic/chalky, foss (60)
- SH; Gray (70)
- SH; Gray, silty-sandy (80)
- LS; Gray/tan, fine crystalline to dense, sl foss, chaly, sl cherty (90)
- SS; Gray, fine grained, silty + SH; Gray (3000)
- LS; Gray/cream/tan, fine crystalline to dense, foss, argillaceous in part, mottled (10)
- SH; Gray, silty, sandy (20)
- LS; Cream/gray, fine crystalline, fossil mottled + SH; Gray, silty (30-40)
- SH; Dark gray, silty (40)
- SS; Gray, fine grained, calcareous (50)
- SS; Gray, fine to medium, silty, calcareous, trace mineral stain + SH; Gray (60)
- LS; Cream/gray, fine crystalline, fossil-mottled + SH; Dark gray (80)
- LS; Cream, fine crystalline to dense, foss, cherty + SH; Gray, silty (90)
- SS; Gray, silty + SH; Gray (3100)

Vis 76
Wt 8.7
LCM 4#



3100

3150

3200

3250

3300

3350

SS; Gray, fine grained, subangular, friable (10)

LS; Cream, fine crystalline, foss (10)

LS; Cream, fine crystalline to dense, foss, chalky, soft, cherty (angular-blocky)(20)

LS; Cream, fine crystalline, fossiliferous-granular w/fair fossilcast por, sl chalky (30)

LS; Cream/lt gray, fine crystalline, fossilifeorus, dolomitic, chalky (40)

LS; Cream, fine crystalline, fossilifeous-subgranular, very dolomitic, chalky (soft) (50)

SH; Black (60)

SH; Red/gray (60)

SD; Tan, fine grained, friable, silty-gummy (70)

SD; Gray, fine grained, fraibel + SH; Red, silty, soft (80)

LS; Cream, fine crystalline, foss, dolomitic, chalky (90)

SH; Gray, silty, sandy (3200)

LS; Lt gray, fine crystalline, sl foss, dolomitic (10)

SH; Black (10)

SH; Green/gray/red (20)

LS; Cream, fine crystalline, fossiliferous-subgranualr, dolomitic, trace stain (20)

SH; Red (30)

LS; Cream/gray, fine crystalline, fossil-mottles, sl chalky (30)

LS; Lt gray/cream, fine crystalline, fossiliferous-subgranular, chalky + LS; Gray, dense (40)

LS; Lt gray, fine crystalline to dense, sl foss, cherty (50)

SH; Black (flood 60)

LS; Tan/lt gray, fine crystalline, sl foss, hard (60)

SH; Red, silty-sandy +SD, gray, fine grained, well-cemented to friable (70)

SH; Red/gray, silty-sandy (80)

LS; Cream, fine crystalline, fossiliferous-granular, poorly sorted w/fair tp good intergranular and fossilcast por, sl dolomitic, sfo, odro, light to medium brown stain on dry (80)

LS; Cream/lt gray, fine crystalline, fossiliferous, subgranular in part, sl dolo, chalky (90)

SH; Red/gray, silty (3300)

LS; Cream, fine crystalline, foss, w/some inter-foss por, chalky, cherty, ssfo, faint odor (3300)

LS; Cream/white, fine crystalline to dense, sl foss, chalky (10)

LS; Cream/lt gray, dense, chalky (20)

SH; Black (20)

SH; Red/gray (30)

LS; Cream, fine crystalline, foss, w/fair fossil-cast por, cherty (cream/translucent to opaque) sfo, faint odor (30)

LS; Cream, fine crystalline, sl dolo, fossiliferous in-part, poor to fair intergran/moldic por, cherty (tan/brown, angular to blocky) sfo, ft odor, full-sat on dry(30/30")

LS; Cream, fine crystalline to dense, chalky (40)

SH; Red/gray (40)

LS; Cream, fine crystalline, foss, dolomitic, cherty + chert inclusions w/good vug por, gsfo, odor, heavy full saturation on dry (50)

SH; Red/gray (50/20")

LS; Cream, fine crystalline, foss, chalky, cherty w/chert inclusion (50/40-60")

SH; Red/gray (70)

LS; Cream, fine crystalline, foss, sl chalky (70)

Vis 69
Wt 8.8
LCM 4#

SHORT TRIP
3240'

DST #1
3305-3350"
15-45-30-60"
IF: Bottom of bucket in 6 min.
ICIP: Weak return blow
FF: Bottom of bucket in 8 min.
FCIP: 1" blow died in 43 min.
Recovered:
150' GIP
60' OCM
120' GMWCO
90' M&WCO
90' GW &MCO
SIP:953-938#
FP: 60-121/126-187#

Vis 53
Wt 8
LCM 4#

Heebner

Toronto

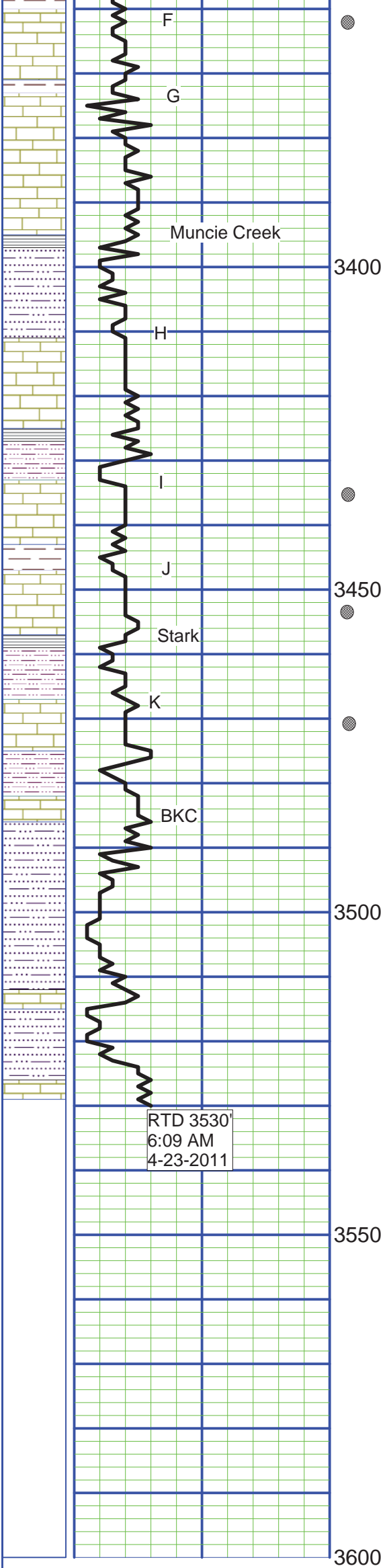
Lansing

C

D

E

DST#1



LS; Cream, fine crystalline, foss/oolitic/sl dolo, w/fair to good, vug por, ssfo, w/even sat, light to medium brown stain on dry (80)
 LS; Cream, dense, chalky (90)
 SH; Red/gray (90)

LS; Cream/lt gray, fine crystalline to dense, chalky, cherty (3400)

LS; Lt gray, fine crystalline to dense, foss, cherty (10)
 SH; Black (10)
 SH; Red/gray, silty-sandy (20)

LS; Cream/lt gray, fine crystalline, foss, chalky, cherty (30)
 SH; Black (40)
 SH; Red/gray (40-50)

LS; Cream, fine crystalline to dense, dolomitic, blocky, w/pinpoint intercrystalline por + fracture por, gsfo (black/brown), odor, sark sat on dry (50)
 LS; Cream, fine crystalline to dense, foss, w/fair to good intercrystalline/foss, por, gsfo, odor (60)
 SH; Dark gray (60)

LS; Cream, fine crystalline, foss w/fair fossil-cast ppt por, patchy stain, sfo, faint odor, med brown stain on dry (70-80)
 SH; Black (80)
 SH; Red/gray, silty (80)

LS; Cream/lt gray, fine crystalline, sl foss, chalky, trace poor ppt por, light stain (90/3500)
 SH; Gray, silty w/trace SS; Clear, coarse, well-rounded, friable (3400/10)
 LS; Cream/lt gray, fine crystalline to dense, foss/ool, trace vug por, sl stain (10)

SH; Red/gray, silty-sandy (20)

LS; Cream/white, dense, chalky + SH; Red, silty, sandy (30)

RTD 3530
 6:09 AM
 4-23-2011

Vis 52
 Wt 9.0
 LCM 3.5#

VIS 64
 WT 9.1
 LCM 4#