

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

MURFIN DRILLING CO., INC.
 WELL: FREIDA #1-13
 LOC.: 2050' FSL & 2310' FWL
 SEC. 13-12-20W
 ELLIS COUNTY, KANSAS
 API: 15-051-26080-00-00

DRILLING CONTR.: MURFIN RIG #8
 SPUD: 01-18-11 COMP: 01-29-11
 MUD UP: 2771' TYPE MUD: CHEM.
 FIVE FT. DRILL TIME: BSP-3200'
 ONE FT. DRILL TIME: 3200-RTD
 RTD: 4025' LTD: 4028'
 SAMPLES SAVED: 3150'-RTD
 GEOLOGIST: ROBERT J. PETERSEN

ELEVATION
 KB: 2265'
 GL: 2260'
 LOG MEASURED
 FROM: KB

SURFACE CASING
 8 5/8" CASING SET
 @214' W/190SX

PRODUCTION CASING
 Plugged & Abandoned

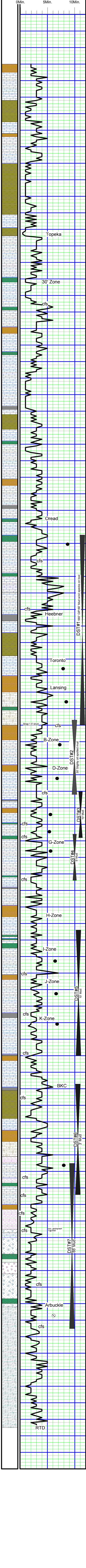
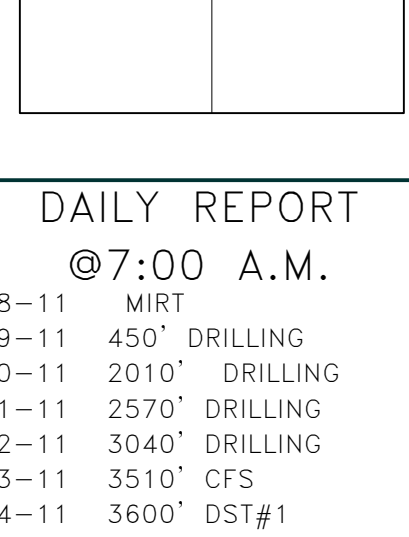
WELL LOG SURVEYS
 CDL/DIL/SONIC/MICRO

Formation	Depth	Datum	Pos. A	Pos. B
Anh	1635	+630	+1	+3
BA	1684	+581	-2	-6
Topeka	3307	-1042	+2	+2
Heebner	3536	-1271	+1	+2
Toronto	3560	-1295	+1	+2
LKC	3580	-1315	+2	FLAT
BKC	3818	-1553	+10	+10
Marm	3831	-1566	+12	+12
Arbuckle	3955	-1690	N/A	-54

REFERENCE WELL:
 Murfin Drilling Co. Homburg #1-18
 1150' FSL/700' FWL
 SW NE SW 13-12-20W 18-12-19W
 2217 KB 2231 KB

REMARKS AND RECOMMENDATIONS
 Due to the negative drill stem results this well was plugged and abandoned by the operator.
 Respectfully Submitted,
Robert Petersen
 Robert Petersen 1-31-11

DAILY REPORT
 @7:00 A.M.
 1-18-11 MIRT
 1-19-11 450' DRILLING
 1-20-11 2010' DRILLING
 1-21-11 2570' DRILLING
 1-22-11 3040' DRILLING
 1-23-11 3510' CFS
 1-24-11 3600' DST#1
 1-25-11 3668' DST#3
 1-26-11 3694' TH
 1-27-11 3800' Drilling
 1-28-11 3919' Drilling
 1-29-11 4025' TOH for Log



SAMPLE DESCRIPTION

LS: Tan/cream, fine crystalline to dense + LS; Gray, dense, arg. + SH; Dark gray (3200)

LS: Gray/tan, dense, foss, subgranular in part, chalky + SH; Gray (10)

LS: Tan/gray, dense, foss + SH; Gray/green, silty-sandy (20)

LS: Cream/gray/tan, dense, foss, chalky + SH; Gray, trace LS; Brown/tan, chalky, mealy w/trace dead stain (30)

Decrease SH (40)

SH: Gray, silty (50)

LS: Tan/cream, fine crystalline to dense, sl foss, chalky (50)

LS: Cream/gray, dense, foss, mottled, chalky (60)

SH: Gray, silty, sandy (60)

LS: Lt gray, dense, foss, chalky, blocky (70-80)

SH: Dark gray, silty-sandy (80)

SH: Gray, silty-sandy + SS; Gray, fine grained, angular, friable, micaceous (90)

SH: Gray/dark gray, silty (3300)

SH: Brown/gray, silty, sandy, gummy (3310)

LS: Cream/gray, dense, foss, chalky (3310)

SH: Black + SH; Red/gray, silty (20)

LS: Gray w/cream fossil mottle, very foss, dense (20)

LS: Cream/tan/gray, fine crystalline to dense, sl foss, chalky, trace stain (30-40)

SH: Dark gray + SH; Gray, silty (45/20')

LS: Cream, fine crystalline, foss, chalky, trace poor fossil-cast por + LS; Tan/gray, dense (45/20')

LS: Tan, fine crystalline, foss, chalky, slightly dolomitic, trace poor fossil-cast por (45/40')

LS: Tan/gray, dense, foss (45/60')

SH: Black (60)

LS: Gray/cream, fine crystalline, foss, chalky, sl dolo + SH; Gray, silty (60)

LS: Tan, fine crystalline, foss, dolo, poor vug por, trace min stain (70)

LS: Cream/gray, fine crystalline to dense, foss w/poor vug por, sl dolo, chalky, mealy, cherty, tr dead stain + SH; Gray, sandy (80-90)

LS: Cream, fine crystalline, very chalky, mealy + SH; Dark gray (3400)

LS: Tan, fine crystalline to dense, foss, chaly (10)

LS: Gray/cream, fine crystalline, chalky, trace dead stain + SH; Dark gray (20-30)

LS: Tan/cream, fine crystalline to dense, foss, chalky, dolo + SH; Black/SH; Gray, sandy (40)

LS: Gray/cream/tan, fine crystalline to dense, foss, chalky (50)

SH: Gray (60)

LS: Cream/gray, fine crystalline, foss, chalky, sl cherty (60)

LS: Tan/cream, fine crystalline, chalky, sl cherty (70)

SH: Black (80)

SH: Gray, silty (80)

LS: Cream/tan, fine crystalline to dense, chalky, cherty (80)

LS: Cream/tan, fine crystalline to dense, chalky, soft (90)

LS: Gray, fine crystalline, foss w/tr poor intercrystalline por, patchy, stain, sso (heavy-larry) (3500-10)

LS: Cream/gray, fine crystalline, foss, chalky, sl dolo, cherty + SH; Gray (10)

+ SH; Red/gray (10/20')

LS: Cream/white, fine crystalline to dense, sl foss, cherty(foss-chert), chalky (10/40-60')

LS: Tan/cream, fine crystalline, foss, chalky w/patchy stain(dead), trace dead oil flakes (20-30)

LS: Tan/cream, fine crystalline to dense, foss (40)

SH: Black, carb (50)

LS: Gray/tab, dense, foss (50)

SH: Red/gray, + SS; Gray, fine grained, friable, micaceous(60)

SH: Gray + SS; Gray/tan, very fine to fine grained, friable to well-cem (70)

LS: Cream/white, fine crystalline to dense, chalky, sl cherty (70)

LS: Tan, fine crystalline, foss w/trace poor ppt por, trace stain, vssfo (70/15')

LS: Tan, fine crystalline, very foss, poor ppt por, trace stain, trace dead oil flakes (70/30') vssfo (70/45')

SH: Black/green + SH; Red/gray, silty (40/45')

LS: Cream/gray, silty-sandy (80)

SH: Green/gray, silty-sandy + SH; Black, sandy (90)

LS: Cream/white, fine crystalline, foss, cherty w/chert inclusions, w/fair fossil-cast por, patchy stain, sfo (90)

LS: Cream, fine to medium crystalline, sl dolo, cherty, foss w/fair intercrystalline por, trace dark stain, sfo (3600)

LS: Cream/tan/gray, fine crystalline to dense, sl dol, cherty, no vis por (00/30')

SH: Gray, silty-sandy (10)

SH: Green, gray, silty (20)

LS: Cream/tan, dense, cherty + LS; Tan, fine crystalline, sl foss (20)

LS: Cream/gray, fine crystalline to dense, foss, w/trace poor vug por, sfo (25)

LS: Cream, fine crystalline, foss, granular w/por to fair intergranular por, sfo, good odor, med brown to dark stain on dry + LS; Tan, dense, slightly dolomitic w/por vug por, sfo (25/30')

SH: Gray, dense, foss, blocky (30)

SH: Dark gray silty-sandy +SH; Black (30)

LS: Tan, fine crystalline to dense, dolomitic, cherty + chert inclusions w/fair vug por, sfo, odor + LS; Cream, fine crystalline, foss - subgranular, chalky (40)

LS: Cream/white, fine crystalline, foss-granular in part, w/fair intercrystalline + vug por, sfo, increase odor, full medium brown stain on dry (42/30') increase dolo (42/45')

LS: Gray, fine crystalline to dense, foss, blocky (42/60')

LS: Cream, fine crystalline, sl foss, dolo w/poor interfoss por, patchy stain + SH; Red/gray (50)

SH: Black + LS: Cream, fine crystalline, dolo, chalky-gummy (60)

LS: Cream/gray, fine crystalline, foss, chalky, gummy, tr ppt por, vssfo (60/20')

LS: Cream/tan/gray, fine crystalline, chalky, cherty, dolo w/por intercrystalline por, vssfo, odor, It even stain on dry (60 40-60')

SH: Black (68)

LS: Cream/lt gray, fine crystalline, foss, chalky w/chert inclusions, fair ppt por, gsf, odor, med brown stain on dry (68/20') sl dolo, foss, subgran w/por to fair intercrystalline por, sfo, good odor, patchy to full sat on dry + SH; Black (68/40-60')

SH: Black (68/60' flood 3680)

LS: Cream, fine crystalline to dense, foss, chalky (80)

LS: Cream, fine crystalline to dense, foss-granular in part, dolomitic w/fair intercrystalline por, sfo, odor, light to medium brown stain on dry (90)

LS: Lt gray/cream, dense w/trace frac por, sso, odor + LS; Lt gray, fine crystalline, foss, chalky + SH; Black/green (94/20')

LS: Cream/dense, chalky-cherty + SH; Black (94/40') flood black shale (94/60')

LS: White, fine crystalline, sl ool, chalky, cherty + SH; Red/gray (3710)

SH: Red/gray + LS: Cream, fine crystalline, ool (20)

LS: Cream/white, fine crystalline, foss, chalky, cherty, trace fracture por, trace stain (30)

LS: Cream/gray, fine crystalline, foss, cherty + SH; Black(40)

SH: Red/green (50)

LS: Cream/white, fine crystalline, foss, chalky, trace stain (50)

LS: Cream/tan, fine crystalline to dense, foss, w/trace ppt/frac por, patchy stain, vssfo (50/20')

LS: Cream/tan, predominately dense (60)

SH: Gray (70)

LS: Cream, fine crystalline to dense, foss, cherty, dolomitic w/trace ppt por, sso, lt stain (70)

LS: Cream/tan, fine crystalline to dense, sl ool, decrease in stain/sfo (74/20')

LS: Cream/lt gray, dense, w/trace poor vug por, sso, trace stain (73/40"-3780)

SH: Black, carb(80)

LS: Cream/lt gray, fine crystalline to dense, sl foss, cherty, trace poor vug por, sso, patchy medium brown stain on dry (3790)

LS: Cream/tan, fine crystalline to dense, ool, chalky w/trace poor moldic/inter-crystalline por, scattered stain, vssfo (3800)

LS: Cream, fine crystalline, ool, chalky, sl dolo (3800/20')

LS: Tan, fine crystalline, dolo + cherty (00/40')

SH: Black/green (00/40" + SS; Gray, fine to med, subrounded, glauconitic (00/60"

SH; Gray, sandy, pyritic

LS: Cream, fine crystalline, ool, chalky, trace ppt por, trace stain + LS; Gray/dark gray, fine crystalline, fossil-mottled (20)

LS: Cream/tan, fine crystalline, foss/ool in part, chalky (25/15')

SH: Black (25/15')

SH: Red, silty-sandy +SH; Gray (40)

SH: Maroon/gray, sandy (50)

LS: Cream, fine crystalline to dense, sl dol, chalky (50)

SH: Red/gray, silty (60)

LS: Cream/white, fine crystalline, ool, chalky (60)

LS: Cream/white, fine crystalline, ool, chalky, cherty (orange/white, foss., blocky to ang), fair intercrystalline por, bleeding gas, sfo, odor, amber to med brown stain on dry (70)

LS: Cream, fine crystalline to dense, ool/chaly/cherty + LS; Gray, dense, arg, blocky (74/20')

LS: Lt gray, fine crystalline to dense, sl dolo w/chert inclusion (80)

LS: gray/lt brown, fine crystalline to dense, arg, foss + Chert; Orange/brown/yellow, foss. + SH; Red, silty, sandy + SH; Gray (84/20") +Dolo; Gray, dense (84/40')

Chert, Orange/cream, foss, blocky chert + LS; Cream/white, fine to med crystalline w/por intercrystalline por, lt stain, vssfo (84/60')

LS: Cream/white, fine crystalline to dense, cherty, sl dol, chalky + Green/black, blocky (95/40-60')

LS: Cream/white, fine crystalline to dense, cherty, chert, ool, chalky + Green/black, blocky, brittle, trace SH; Brown, sandy (05/20')

FLOOD SH; Green/black, trace sand, trace Sand; Clear, coarse./Chert; Orange (06/40-60')

LS: Cream/lt gray, fine crystalline to dense, + Chert; White, blocky +SH; Black/red/gray (3918) + tr reworked LS; (pebbly) gray, dense, trace stain + LS; Tan, dense, sandy (18/20')

Chert; White/cream, blocky + SH; gray, sandy + SS; Graym fine grained, silty, glauc (18/40')

LS: Cream/white, fine crystalline to dense, chalky + SH; Red/green/black, abundant Chert; White/yellow/translucent, SS; Amber, finegrained, well-cem (18/60-30')

SH: Black/green/red + Chert; White, yellow, angular + SH, gray, sandy + Sand; Clear, med-cse (38-38/20')

increase SH; Black/green (38/40')

SH: Red, silty + Sand; Clear, coarse, loose + SS; Clear/gray, fg, well-cem, fe stain + Chert; Tan/cream/orange, sharp to blocky (50-60)

LS: White, chalky, cherty, trace stain, trace Dolo; Tan/gray, coarse crystalline w/por intercrystalline por, vssfo (60)

Dolo; Gray, coarse crystalline, sucrosic + Chert; Gray, blocky, ool (first ool chert) (65/40')

Dolo; Cream/gray, med-coarse crystalline, por vug por, vssfo (65/60')

Dolo; Cream, coarse crystalline, suc/Chert; Gray, ool + SH; Black/green/maroon (75/20')

Dolo; Cream/gray, fine to coarse crystalline, su + SH; Green/gray + Chert; Red/white + SH; Gray, hem nodes, SH; Green, sandy (75/40')

Dolo; Cream/tan, fine to coarse crystalline, sl pyritic, chalky + SH; Gray/black (75/60')

Dolo; Lt gray/tan, coarse crystalline, sandy, + Chert; White + Dolo; White, dense, chalky (90)

Dolo; Tan, coarse crystalline, pyrite (4000)

Dolo; Pinky/yellow/gray, coarse crystalline + Chert; White, blocky/translucent-ool + SH; Gray, blocky, hematite nodes (10)

Dolo; Tan/gray, coarse crystalline, ool w/good oomoldic por (barren), ool chert (20)

Dolo; Lt gray, fine crystalline to dense, chalky (25/30')

DST #1
 3485-3600'
 30-60-30-60"
 IF: Weak blow 1 inch
 FF: Weak blow 1 inch
 Recovered:
 560' GIP
 60' Mud w/oi specks in tool
 SIP: 1165-1115#
 FP: 25-35/38-46#
 HP: 1746-1724#
 BHT: 103 F

DST #2
 3597-3642'
 30-60-60-90"
 IF: Weak 1/2 inch blow
 FF: Weak 1/2 inch blow
 Recovered: 30' SSSM
 SIP: 939-895#
 FP: 20-24/24-28#
 HP: 1789-1768#
 BHT: 102 F

DST #3
 3640-3668'
 30-60-60-90"
 Recovered: 10' Mud
 SIP: 801-763#
 FP: 16-18/19-21#
 HP: 1806-1770#
 BHT: 103F

Added Premix

DST #5
 3724-3800'
 30-60-30-60"
 IF: 2 inch blow
 FF: 1 1/2 inch blow
 Recovered: 10' Mud
 SIP: 1161-1110#
 FP: 20-30/33-41#
 HP: 1865-1833#
 BHT: 104F

DST #6
 3817-3884'
 30-60-30-60"
 IF: Weak 1 inch
 FF: None
 Recovered: 3' Mud
 SIP: 71-46#
 FP: 21-23/27-46#
 HP: 1926-1895#
 BHT: 105F

DST #7
 3865-3965'
 30-60-30-60"
 IF: 2 inch blow
 FF: 1/2 inch blow
 Recovered: 35' Mud
 SIP: 1192-1183#
 FP: 23-40/42-60#
 HP: 1976-1967#
 BHT: 104F

DRIFT SURVEY
 1/2" @214'
 10" @126"
 1 1/2" @2380'
 1 1/2" @2538'
 1" @3014'
 2" @3600'
 0" @3800'
 0" @4025'