

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

SUEMAUR EXPLORATION & PROD., LLC
SHAWN SPRESSER TRUST. #1-26
SEC. 26 TWP 6S RGE 28W
NE SW SE SW
578' FSL & 1837' FWL
SHERIDAN COUNTY, KANSAS
API: 15-179-21419-00-00

ELEVATION
KB: 2735
GL: 2730
LOG MEASURED FROM: KB

SURFACE CASING
8 5/8" Set @ 345 KB
W/300 SX 3% CC 2%gel
PRODUCTION CASING
5 1/2"

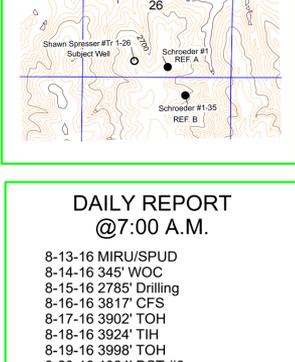
DRILLING CONTR.: MURFIN RIG #7
SPUD: 08-13-2016 COMP: 08-21-2016
MUD UP: 3050' TYPE MUD: CHEM.
DRILL TIME: 3300' to RTD
RTD: 4200' LTD: 4202'
SAMPLES TAKEN: 3350' to RTD
GEOLOGIST: ROBERT J. PETERSEN

WELL LOG SURVEYS
ARRAY INDUCTION/
CN-DL-GR
MICROLOG
BHCS

ELECTRIC LOG TOPS

FORMATION	DEPTH	DATUM
Stone Corral	2487	268
Base Stone Corral	2502	233
Foraker	3356	-921
Stotler	3525	-790
Howard	3602	-867
Topeka	3650	-915
Tecumseh SD	3746	-1011
Lecompton	3780	-1045
Oread	3808	-1073
Heebner	3849	-1114
Toronto	3877	-1142
Lansing	3894	-1159
C Zone	3923	-1188
G Zone	3974	-1239
Lower G por	3988	-1253
Muncie Cr. Shale	3988	-1263
H Zone	4010	-1275
J Zone	4047	-1312
Stark	4050	-1315
K Zone	4069	-1334
L Zone	4088	-1353
BKC	4099	-1364
Marmaton	4117	-1382
RTD	4200	-1465

POS A	POS B
-1	-1
-4	-1
Flat	+5
+2	+6
-3	+7
-3	+8
-1	+7
-5	+7
Flat	+10
-2	+10
-1	+8
+1	+9
-1	+11
-1	+10
+2	+13
+1	+12
-2	+11
4	+15
+1	+12
Flat	+15
Flat	+16
+3	+16
-	-



REFERENCE WELL A:
 API 15-179-21414-00-00
 Suemaur Exploration & Prod. Co
 Schroeder #1
 365' FSL & 2246' FEL
 26-6-28W
 Sheridan County, KS

REFERENCE WELL B:
 API 15-179-21416-00-00
 Suemaur Exploration & Prod. Co
 Schroeder #1-35
 685' FNL & 1603' FEL
 35-6-28W
 Sheridan County, KS

DAILY REPORT

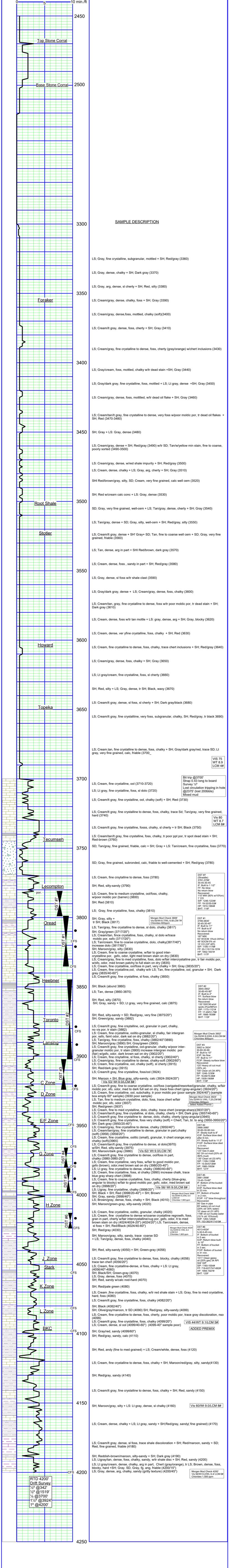
@7:00 A.M.

8-13-16 MIRU/SPUD
 8-14-16 345' WOC
 8-15-16 2785' Drilling
 8-16-16 3817' CFS
 8-17-16 3902' TOH
 8-18-16 3924' TOH
 8-19-16 3998' TOH
 8-20-16 4024' DST #6
 8-21-16 4200' RTD TOH for log

REMARKS AND RECOMMENDATIONS

The engineer will run production casing to further test this well for commercial production.

REMARKS AND RECOMMENDATIONS



SAMPLE DESCRIPTION

LS; Gray, fine crystalline, subgranular, mottled + SH; Red/gray (3360)

LS; Gray, dense, chalky + SH; Dark gray (3370)

LS; Gray, arg, dense, sl cherty + SH; Red, silty (3380)

LS; Cream/gray, dense, chalky, foss + SH; Gray (3390)

LS; Cream/gray, dense, foss, mottled, chalky (soft)(3400)

LS; Cream/lt gray, dense, foss, cherty + SH; Gray (3410)

LS; Cream/gray, fine crystalline to dense, foss, cherty (gray/orange) w/chert inclusions (3430)

LS; Gray/cream, foss, mottled, chalky w/lt dead stain +SH; Gray (3440)

LS; Gray/dark gray, fine crystalline, foss, mottled + LS; Lt gray, dense +SH; Gray (3450)

LS; Cream/gray, dense, foss, mottled, w/lt dead oil flake + SH; Gray (3460)

LS; Cream/tan/lt gray, fine crystalline to dense, very foss w/poor moldic por, tr dead oil flakes + SH; Red (3470-3480)

SH; Gray + LS; Gray, dense (3480)

LS; Cream/gray, dense + SH; Red/gray (3490) w/tr SD; Tan/w/very fine min stain, fine to coarse, poorly sorted (3490-3500)

LS; Cream/gray, dense, w/red shale impurity + SH; Red/gray (3500)

LS; Cream, dense, chalky + LS; Gray, arg, cherty + SH; Gray (3510)

SH; Red/brown/gray, silty, SD; Cream, very fine grained, calc well cem (3520)

SH; Red w/cream calc conc + LS; Gray, dense (3530)

SD; Gray, very fine grained, well-cem + LS; Tan/gray, dense, cherty + SH; Gray (3540)

LS; Tan/gray, dense + SD; Gray, silty, well-cem + SH; Red/gray, silty (3550)

LS; Cream/lt gray, dense + SH; Gray + SD; Tan, fine to coarse well cem + SD; Gray, very fine grained, friable (3560)

LS; Tan, dense, arg in part + SH; Red/brown, dark gray (3570)

LS; Cream, dense, foss, sandy in part + SH; Red/gray (3580)

LS; Gray, dense, sl foss w/lt shale clast (3590)

LS; Gray/dark gray, dense + LS; Cream/gray, dense, foss, chalky (3600)

LS; Cream/tan/lt gray, fine crystalline to dense, foss w/lt poor moldic por, tr dead stain + SH; Dark gray (3610)

LS; Cream, dense, foss w/lt tan mottle + LS; gray, dense, arg + SH; Gray, blocky (3620)

LS; Cream, dense, very fine crystalline, foss, chalky + SH; Red (3630)

LS; Cream, fine crystalline to dense, foss, chalky, trace chert inclusions + SH; Red/gray (3640)

LS; Cream/gray, dense, foss, chalky + SH; Gray (3650)

LS; Lt gray/cream, fine crystalline, foss, sl cherty (3660)

SH; Red, silty + LS; Gray, dense, tr SH; Black, waxy (3670)

LS; Cream/lt gray, dense, sl foss, sl cherty + SH; Dark gray/black (3680)

LS; Cream/lt gray, fine crystalline, very foss, subgranular, chalky, SH; Red/gray, tr black (3690)

LS; Cream, tan, fine crystalline to dense, foss, chalky + SH; Gray/dark gray/red, trace SD; Lt gray, very fine grained, calc, friable (3700)

LS; Cream, fine crystalline, ool (3710-3720)

LS; Lt gray, fine crystalline, foss, sl dolo (3720)

LS; Cream/lt gray, fine crystalline, ool, chalky (soft) + SH; Red (3730)

LS; Cream/lt gray, fine crystalline to dense, foss, chalky, trace Sd; Tan/gray, very fine grained, hard (3740)

LS; Cream/lt gray, fine crystalline, foss, chalky, sl cherty + tr SH; Black (3750)

LS; Cream/tan/lt gray, fine crystalline, foss, chalky, tr poor ppt por, tr spot dead stain + SH; Red-brown (3760)

SD; Tan/gray, fine grained, friable, calc + SH; Gray + LS; Tan/cream, fine crystalline, foss (3770)

SD; Gray, fine grained, subrounded, calc, friable to well-cemented + SH; Red/gray (3780)

LS; Cream, fine crystalline to dense, foss (3790)

SH; Red, silty-sandy (3790)

LS; Cream, fine to medium crystalline, ool/foss, chalky, w/poor moldic por (barren) (3800)

SH; Red (3810)

LS; Gray, fine crystalline, foss, chalky (3820)

SH; Gray, silty + tr SH; Black (3817)

LS; Tan/gray, fine crystalline to dense, sl dolo, chalky (3817)

SH; Gray/green (3717/20")

LS; Cream/lt gray, fine crystalline, ool-granular, silty, cherty + SH; Dark gray (3820/60")

LS; Cream/tan, fine crystalline, ool, chalky (soft), (3822/20")

LS; Tan/gray, fine crystalline, foss, chalky (3882/40"/3890)

SH; Maroon/gray (3890) SH; Gray/green (3900)

LS; Cream/lt gray, fine to coarse crystalline, ool-granular, chalky w/poor inter-granular moldic por, tr stain (3900) increase intergranular moldic por (faint) w/gso, odor, dark brown sat on dry (3902/20")

LS; Cream, fine crystalline, sl foss, chalky, sl cherty (3902/40")

LS; Cream/gray, fine crystalline to dense, chalky-soft (3902/60")

SH; Gray, sandy (3998/40")

LS; Cream, fine crystalline, ool, chalky (soft), (3915)

SH; Red/dark gray (3915)

LS; Cream/lt gray, fine crystalline, foss/ool (3924)

SH; Maroon + SH; Blue gray, silty-sandy, calc (3924-3924/20")

[Vis 53/ Wt 9.0/LCM 8#]

LS; Cream/lt gray, fine to coarse crystalline, ool/foss (variegated/reworked)granular, chalky, w/air moldic por, sfo, odor, med to dark full sat on dry, trace foss chert (gray-angular) (3924/20")

LS; Cream, fine crystalline, ool, subchaly, tr poor moldic por (poor sample 3924/20") (sample box empty 60" sample)

LS; Tan, fine to medium crystalline, dolo, foss, trace chert w/air moldic por, sfo, odor (3937)

SH; Red/green (3937)

LS; Cream, fine to med crystalline, dolo, chalky, trace chert (orange-sharp)(3937/20")

LS; Cream/tan/lt gray, fine crystalline, sl dolo (3950/40")

LS; Cream/tan/lt gray, fine crystalline to dense, dolo, chalky, cherty (gray-angular)(3945)

LS; Cream/lt gray, fine crystalline, foss very chalky (soft) + Chert, Tan, bl. to ang (3950-3950/20")

SH; Dark gray (3950/20-40")

LS; Cream/gray, fine crystalline to dense, chalky (3950/40")

LS; Cream/tan/gray, fine crystalline to dense, granular in part, chaly (3956)

LS; Cream, fine crystalline, oolitic (small), granular, tr chert orange, very chalky (soft)(3965)

LS; Cream/tan/lt gray, fine crystalline to dense, sl dolo(3970)

w/SH; Red; silty-sandy (3975)

SH; Maroon/dark gray (3980)

[Vis 62/ Wt 9.0/LCM 8#]

LS; Cream/lt gray, fine crystalline to dense, ool/foss in part, chalky (3980-3980/20")

LS; Cream, fine crystalline, very foss, w/air to good moldic por, gso (brown), odor, med brown sat on dry (3980/20-40")

LS; Cream/lt gray, fine crystalline to dense, dolo, chalky, cherty (gray-angular)(3985/20")

LS; Lt gray, fine crystalline to dense, chalky (3980/40-60")

LS; Cream, fine crystalline, foss, sl chalky (3990) increase chalk, trace blue gray sharp chert (3998)

LS; Cream, fine to coarse crystalline, foss, chalky, cherty (blue-gray) angular to blocky w/air to good moldic por, gso, odor, med brown sat on dry (3998/20")

LS; Ltgray, fine crystalline, ool, chalky (3998/20")

[Vis 56/ Wt 9.0/LCM 8#]

SH; Black + SH; Red (3998/20-40") + SH; Brown/Black (4010)

LS; Ltgray/cream, dense, foss, chalky + SH; Brown/Black (4010)

SH; Maroon/green-gray, silty-sandy (4020)

LS; Cream, fine crystalline, oolitic, granular, chalky (4020)

LS; Cream, fine crystalline to dense w/coarse crystalline regrowth, foss, gran in part, cherty w/air intercrystalline/vug por, gso, odor, lt to med brown stain on dry (4024/4024-20") (4024/20") LS; Tan/cream, dense, sl foss + SH; Red/Black (4024/40-60")

SH; Red/gray (4030)

SH; Maroon/gray, silty sandy, trace coarse SD + LS; Tan/gray, dense, foss, chalky (4040)

SH; Red, silty-sandy (4050) + SH; Green-gray (4056)

LS; Cream/lt gray, fine crystalline to dense, foss, blocky, chalky (4056)

LS; Cream, fine crystalline-dense, sl foss, chalky + LS; Lt gray, (4056/40-4060)

SH; Black/SH; Green-gray (4070)

LS; Gray, dense, foss (4070)

SH; Red, sandy w/calc nod-hard (4070)

SH; Red/pale green (4080)

LS; Cream, fine crystalline, foss, chalky, w/lt red shale stain + LS; Gray, fine to med crystalline, hard, foss (4080)

LS; Cream/lt gray, fine crystalline, foss, chalky (4082/20")

SH; Black (4082/40")

SH; Olive/gray/maroon, tr SD (4090) SH; Red/gray, poor moldic por, trace gray discoloration, nso (4099)

LS; Cream/lt gray, fine crystalline, foss, chalky (4099/20")

LS; Cream, dense, sl ool (4099/40-60") (4099-40" sample poor)

SH; Gray/red, sandy (4099/60")

[Vis 44/WT 9.1/LCM 5#]

SH; Red/gray, sandy, calc (4110)

SH; Red, andy (calc to med grained) + LS; Cream/white, dense, foss (4120)

LS; Cream, fine crystalline to dense, foss, chalky + SH; Maroon/red/gray, silty, sandy (4130)

SH; Red/gray, sandy (4140)

LS; Cream/lt gray, fine crystalline to dense, foss, chalky + SH; Red, sandy (4150)

SH; Maroon/gray, silty + LS; Lt gray, dense, sl chalky (4160)

[Vis 60/ Wt 9.0/LCM 8#]

LS; Cream, dense, chalky + LS; Lt gray, sandy + SH; Red/gray, sandy (fine grained) (4170)

LS; Cream/lt gray, dense, sl foss, trace shale discoloration + SH; Red/maroon, sandy + SD; Red, fine grained, friable (4180)

SH; Reddish-brown/maroon, silty-sandy + SH; Dark gray (4190)

LS; Ltgray/tan, dense, foss, chalky, sandy, w/lt shale disc + SH; Red, sandy (4200)

LS; Lt gray/cream, dense, foss, arg in part, Chert (gray/orange), tr LS; Brown, dense, foss, blocky, hard +SH; Gray, SD, Gray, fg, ang, friable (4200/15")

LS; Gray, dense, arg, chalky, sandy (gritty texture) (4200/45")

Morgan Mud Check 4200' Vis 56/ Wt 9.0/LCM 8# Chlorides 1,500 ppm

Bit trip @3700' Strip 0.43' long to board Survey 1/2' Lost circulation tripping in hole @2375' (lost 200bbbls) Mixed mud

Vis 75 WT 8.9 LCM 4#

Vis 80 WT 8.7 LCM 3#

DST #7 (Stranded) 3781-3799 30-45-30-45 IF: Built to 11' FF: No blow No return blow Recovered: 157' MW 63' WOCM 5%oil/20%w 48' SOCM 5% oil 15' CO (33' API) SIF: 1185-1179# HP: 1886-1838# BHT: 1147'

Morgan Mud Check 3806' Vis 65/ Wt 8.7/ Wt 6.8/ LCM 7# Chlorides 800ppm

DST #1 3799-3835 30-45-30-45 IF: Built to 11' FF: Built to 9' No return blow Recovered: 187' MW 63' WOCM 5%oil/20%w 48' SOCM 5% oil 15' CO (33' API) SIF: 1185-1179# HP: 1886-1838# BHT: 1147'

DST #2 (Stranded) 3845-3902 30-40-45-90 IF: Built to 2" FF: Surface blow Recovered: 130' SWCM w/oil spots 2%w/80%tm SIF: 1175-1121# HP: 1829-1908# BHT: 115F'

Morgan Mud Check 3902' Vis 55/ Wt 8.1/ Wt 6.8/ LCM 6# Chlorides 800ppm

DST #3 (Stranded) 3902 to 3924 30-40-30-90 IF: Built to 10' FF: No return blow Recovered: 130' Steady surface blow Recovered: 100' Clean oil (34 API) SIF: 1246-1239# HP: 1829-1908# BHT: 115F'

Morgan Mud Check 3924' Vis 53/ Wt 8.1/ Wt 7.2/ LCM 6# Chlorides 800ppm Jetted Added Premix

DST #4 3966-3980 30-45-30-45 IF: Built to 10' FF: Slowly built to 11.5' FCP: Surface blow died in 9 min. Recovered: 129' Gas in pipe 60' Oil cut mud (20% oil 130' Clean oil (33 API) SIF: 154-547-54# HP: 1980-1955# BHT: 121F'

DST #5 3981-3998 15-45-15-40 IF: Bottom of the bucket in 2 min. ICIP: Surface blow died in 23 min. Recovered: 151' Clean gray oil (20% gsm) 34 API SIF: 1160-1054# HP: 718-627/747-602# HP: 1094-1027# BHT: 125F'

Morgan Mud Check 4004' Vis 53/ Wt 8.1/ Wt 6.4/ LCM 4# Chlorides 1,500 ppm

DST #6 4013-4024 5-30-5-45 min. ICIP: Bottom of bucket in 5 sec. Recovered: 107' Return blow built to 10' FF: Bottom of bucket in 3 sec. FCP: Bottom of bucket in 4 min. Recovered: 151' Clean gray oil (20% gsm) 34 API SIF: 1160-1054# HP: 718-627/747-602# HP: 1094-1027# BHT: 125F'

Morgan Mud Check 4200' Vis 56/ Wt 9.0/LCM 8# Chlorides 1,500 ppm

RTD 4200' Drift Survey 1/2° @342' 1/2° @1519' 1/2° @3700' 1 1/2° @3924' 1° @4200'