

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

SUEMAUR EXPLORATION & PROD., LLC

WELL: SCHROEDER #1
SEC. 26 TWP 6S RGE 28W
NE SW SW SE
365' FSL & 2246' FEL

SHERIDAN COUNTY, KANSAS
API: 15-179-21414-00-00

DRILLING CONTR.: MURFIN RIG #7
SPUD: 12-09-15 COMP: 12-18-2015
MUD UP: 3050' TYPE MUD: CHEM.
DRILL TIME: 3350 to' RTD
RTD: 4475'LTD: 4476'
SAMPLES SAVED: 3350'-RTD
GEOLOGIST: ROBERT J. PETERSEN

ELEVATION
KB: 2733
GL: 2728
LOG MEASURED
FROM: KB

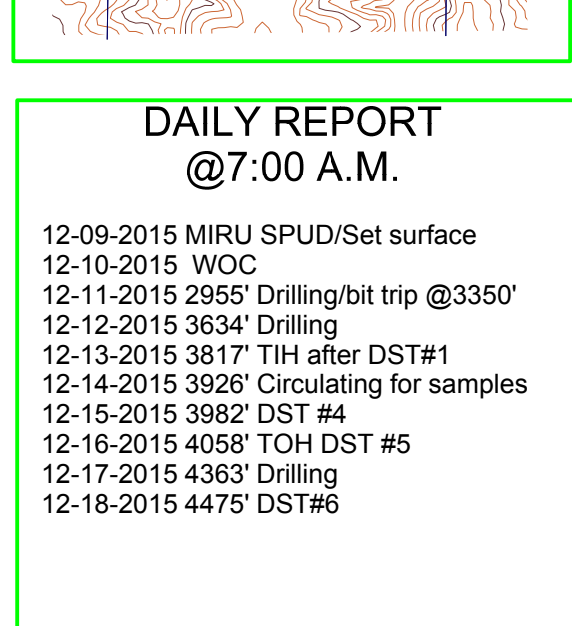
SURFACE CASING
8 5/8" Set @ 346' KB
W/250 SX 3% CC 2%gel

PRODUCTION CASING
5 1/2" Set

WELL LOG SURVEYS
DIL/DCP/Sonic/Micro

ELECTRIC LOG TOPS

FORMATION	DEPTH	DATUM	WELL A	WELL B	WELL C*
Stone Corral	2464	+269	+11	+14	N/A
Base Stone Corral	2496	+237	+12	+13	N/A
Howard	3597	-864	+18	+34	N/A
Topeka	3645	-912	+17	+32	N/A
Heebner	3847	-1114	+17	+35	+15
Toronto	3873	-1140	+19	+35	+16
Lansing	3898	-1156	+22	+35	+15
Muncie Cr. Shale	3998	-1265	+18	+39	+16
Stark	4052	-1319	+21	+36	+30
BKC	4097	-1364	+24	+39	+28
Pawnee	4192	-1459	+20	+33	+23
Cherokee LS	4293	-1560	+19	+34	+39
Miss	4423	-1690	+12	+69	+17



REFERENCE WELL:

Well A	Well B	Well C *
API: 15-179-00141	15-179-20736	Drill time tops
Lease: Cooper #1	DIAMOND SHAMROCK	(Well time to 3800 to RTD)
Leben Drilling Inc.	W J COPPINGER	
19-6-27W	WAGONER #1	
16S R28W, Sec. 23	Sec. 34 T6S R28W	
SW SW SW	NW NW NW	1.51 Mi to SW)
app 1 mile NW		

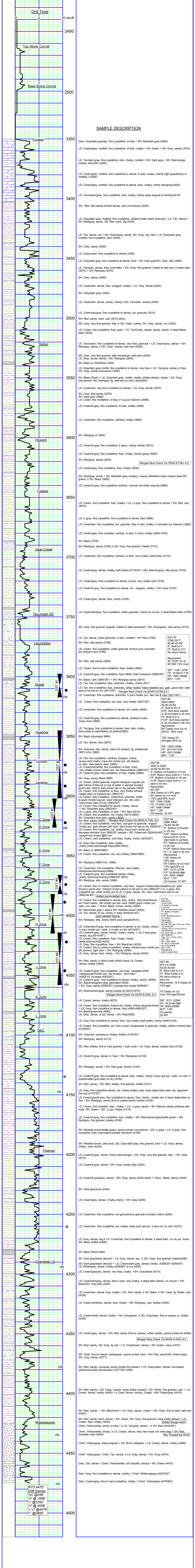
REMARKS AND RECOMMENDATIONS

The operator has decided to run casing to test for commercial production.

Respectfully Submitted,
Robert J. Petersen
 Robert J. Petersen

DAILY REPORT @7:00 A.M.

12-09-2015 MIRU SPUD/Set surface
 12-10-2015 WOC
 12-11-2015 2955' Drilling/bit trip @3350'
 12-12-2015 3634' Drilling
 12-13-2015 3817' TH after DST#1
 12-14-2015 3926' Circulating for samples
 12-15-2015 3982' DST #4
 12-16-2015 4058' TOH DST #5
 12-17-2015 4363' Drilling
 12-18-2015 4475' DST#6



SAMPLE DESCRIPTION

Dolo: Gray/dark gray/tan, fine crystalline, sl foss + SH; Red/dark gray (3360)

LS; Cream/gray, mottled, fine crystalline, sl dolo, chalky + SH; Green + SH; Gray, sandy (3470)

LS; Tan/dark gray, fine crystalline, dolo, chalky, mottled + SH; Dark gray + SD; Red/orange, coarse, dolomitic (3480)

LS; Cream/gray, mottled, fine crystalline to dense, sl dolo, chalky, cherty (light gray/blocky sl mottled) (3390)

LS; Cream/gray, mottled, fine crystalline to dense, dolo, chalky, cherty (tan/gray)(3400)

LS; Tan/cream/gray, fine crystalline, dolo, chalky, cherty (gray angular to blocky)(3410)

SH; Red, silty-sandy, whard dense, calc concretions (3420)

LS; Gray/dark gray, mottled, fine crystalline, w/black shale clasts (breccia) + LS; Tan, dense + SH; Red/gray, sandy, SD; Red, hard, vfg (3430)

LS; Tan, dense, ool + SH; Green/gray, sandy, SD; Gray, vfg, hard + LS; Gray/dark gray, mottled, fine crystalline, dolo (3440)

SH; Gray, sandy (3450)

LS; Gray/cream, fine crystalline to dense (3450)

LS; Gray/dark gray, fine crystalline to dense, foss + SH; Dark gray/SH; Gray, silty (3460)

LS; Tan/gray, dense, foss, subchalky + SD; Gray, fine grained, friable to well-cem, tr dead stain (3470) + SH; Red/gray (3476)

SH; Gray, sandy (3480)

LS; Cream/tan, dense, foss, subgran, chalky + LS; Gray, dense (3490)

SH; Gray/dark gray (3500)

LS; Cream/tan, dense, sandy, cherty, tr SD; Tan/clear, coarse (3500)

LS; Cream/tan/gray, fine crystalline to dense, ool, granular (3510)

SH; Red, sandy, hard, calc (3510-3520)

SD; Gray, very fine grained, silty, tr SD; Clear, coarse, SH; Gray, sandy, mic (3520)

LS; Cream, fine crystalline, foss, gran + LS; Tan/lt gray, dense, sandy, cherty, tr dead flakey stain (3520)

LS; Tan/cream, fine crystalline to dense, very foss, granular + LS; Cream/gray, dense + SH; Red/gray, sandy, tr SD; Clear, coarse, well-cem (3530)

SD; Gray, very fine grained, silty-micaceous, well-cem (3540)

LS; Gray, dense, sandy + SH; Red/gray (3540)

SH; Black (tr 3540/flood 3550)

LS; Gray/dark gray mottled, fine crystalline to dense, very foss + LS; Tan/gray, dense, sl foss, SH; Gray, sandy-micaceous (3550)

SH; Black (flood) + LS; Gray/dark gray, mottle, chalky, shaley (black), cherty + SH; Gray, silty-sandy + SD; Red/gray, fg, well-cem to hard, silty(3560)

LS; Cream/tan, very fine crystalline to dense + LS; Gray, dense (3570)

SH; Gray, silty-sandy (3570)

SH; Dark gray (3580)

LS; Cream, fine crystalline, sl foss, tr vug por (barren) (3580)

LS; Cream/lt gray, fine crystalline, sl dolo, chalky (3590)

LS; Cream/tan, fine crystalline, ool/foss, chalky (3600)

SH; Red/gray (tr 3600)

LS; Cream/lt gray, fine crystalline, tr glauc, cherty (white) (3610)

LS; Cream/lt gray, fine crystalline, foss, chalky, cherty (gray) (3620)

SH; Red/gray, sandy (3630)

Morgan Mud Check Vis 76W 8.7W 6.0

LS; Cream/gray, fine crystalline, foss, chalky (3630)

SH; Red/gray, sandy + SD; Red/dark gray (shaley), coarse (3640)/few loose coarse clear SD grains, tr SH; Black (3650)

LS; Cream/lt gray, fine crystalline ool/foss, w/some red shale impurity (3660)

LS; Cream, fine crystalline, foss, chalky + LS; Lt gray, fine crystalline to dense + SH; Red, silty (3670)

LS; Lt gray, fine crystalline, fine crystalline to dense, foss (3680)

LS; Cream/tan, fine crystalline, ool, granular, foss in part, chalky, tr comoldic por (barren) (3680)

LS; Cream/gray, fine crystalline, ool/foss, sl dolo, tr chert, chalky (3690-3700)

SH; Black (3700)

SH; Red/gray, sandy (3700) tr SD; Gray, fine grained, friable (3710)

LS; Cream/tan, fine crystalline, ool/foss, sl dolo, very chalky (soft-white) (3710)

LS; Cream/gray, dense, chalky (soft-white) (3710/30') +SD; Maroon/gray, silty-sandy (3720)

LS; Cream/gray, fine crystalline to dense, sl foss, very chalky-soft (3730)

LS; Cream/lt gray, fine crystalline to dense, ool - subgran, chalky + SH; Gray (3740)

LS; Cream/gray, dense, foss, cherty (3750)

LS; Cream/tan/gray, fine crystalline, oolitic-granular, cherty, no vis por, tr dead flakey stain (3760)

SD; Gray, fine grained, angular, friable to well-cemented + SH; Gray/green, silty-sandy (3770)

LS; Tan, dense, oolitic-granular, in part, mottled + SH; Red (3780)

SH; Red, silty-sandy (3790)

LS; Cream, fine crystalline, oolitic-granular w/trace poor oomoldic por (barren-nso) (3790)

SH; Red, silty-sandy (3800)

LS; Cream, fine to med crystalline, foss, chalky (3800)

LS; Cream, gray, fine crystalline, foss (3805) sand inc inclusions (3805/30')

SH; Black carb (3805/30') + SH; Red/gray (3810)

LS; Tan, fine crystalline, foss, dolomitic, w/fair moldic/intercrystalline por, gfto, good odor, dark spot to full sat on dry (3817/20') Morgan Mud Check Vis 62W 9.0W 6.0

LS; Cream/tan, fine crystalline, dolomitic, tr poor moldic por, decr sfo & odor (3817/40')

LS; Cream, fine crystalline, ool, dolo, very chalky (3827/30')

LS; Cream/tan, fine crystalline to dense, ool, chalky (3840)

LS; Cream/lt gray, fine crystalline to dense, ool/foss in part, trace chert (3850)

LS; Tan/gray, fine crystalline to dense, foss, dolo, chalky, trace dead oil stain/flakey oil (black)(3860)

SH; Black (abundant 3860)

LS; Tan, dense, foss (3870)

SH; Gray/red, silty-sandy, trace Sd clusters, fg, shaley/calc (3870) trinc 3880)

LS; Tan, fine crystalline, ool, moldic, subgran, cherty, some-chert matrix, trace fair moldic por, sfo (black), no odor, dark patchy stain (3880)

LS; Cream/tan/white, fine crystalline, sl foss, chert, very chalky w/poor moldic por, sfo (heavy/black) (3880/30')

LS; Cream/lt gray, fine crystalline, sl foss, chalky (3880)

SH; Gray, sandy (flood 3895)

LS; Cream, oolitic-granular w/poor intergranular por, gfto (show of free oil on top of water in sample bucket), no good odor, med to dark brown sat on dry sample (3900)

LS; Cream, fine crystalline, sl foss, very chalky w/trace edges stain on fracture por (3902/15')

LS; Cream, fine crystalline to dense, chalky, w/fair to good moldic/vug por, poor intergran por, sfo, odor, med brown stain on dry (3902/30')

LS; Cream, fine crystalline to dense, chalky, cherty + SH; Gray/dark gray (3902/45')

LS; Lt gray, fine crystalline, sl dolo + SH; Red (3910)

LS; Cream, fine crystalline, ool, chalky (3915-3920)

SH; Gray/dark blue-gray, sandy (3920)

SH; Red, sandy (3925) Morgan Mud Check Vis 58W 9.1W 6.0

LS; Cream, fine crystalline, very foss, sub-gran to granular, w/poor moldic por, gfto (brown), fair odor, dark brown full sat on dry (3926/20')

LS; Cream, fine crystalline, ool, chalky, trace poor moldic por, decrease sfo/odor from 3926/20' sample + SH; Green/red (3926/40-60')

LS; Cream, med crystalline, very foss, chalky, cherty (3933/20')

LS; Gray, fine crystalline, ool, chalky (3915-3920)

LS; Cream, fine crystalline to dense, chalky, cherty (chert tan/orange foss) (3945-3950)

SH; Black (tr 3955/3960)

LS; Cream, fine crystalline, ool, very chalky (3960/3965)

SH; Red/gray (3965 /incr. 3968)

LS; Cream/tan, fine crystalline, foss/ool, very chalky, chert(brown/tan/blocky)(3968)

LS; Cream/lt gray, fine crystalline-dense, chalky, cherty (tan/brown/blocky)(3968/20'-3975)

SH; Red/gray, silty, sandy (3980)

LS; Cream, fine to coarse crystalline, very foss, w/good moldic/intercrystalline por, gfto (brown), good odor, medium brown patchy to full sat on dry (3982/40-60')

LS; Cream, fine crystalline to dense, foss, cherty (tan/cream/block) w/trace matrix, fair moldic por, sfo, odor (3995) good moldic por, gfto, incr odor, + Chert Black, sl foss, blocky (4000)

SH; Black/dark gray + ool, abundant SH; Reddish-brown (4000)

LS; Tan, dense, sl ool, chert, tr stain (4000/20-40')

SH; Red/gray, silty, sandy (4005 poor sample returns)

LS; Cream/lt gray, fine crystalline to dense, sl ool, chalky, cherty, tr poor moldic por, vssfo, tr lt stain on dry (4014/20')

LS; Cream/lt gray, dense, blocky, chalky, cherty + LS; lt blue-gray, dense, arg (4014/40')

LS; Cream, fine crystalline to dense, chalky, cherty (white-blocky)(4020-4025)

LS; Gray, fine crystalline, foss + SH; Black/red (4030)

SH; Black/green/red (4035)

LS; Cream, fine crystalline, w/trace poor moldic por, sfo (brown), light odor + SH; Red/gray (4035)

LS; Gray, dense, foss, cherty + SH; Red/gray, sandy (4040)

SH; Red, sandy, tr black shale (4040) trace LS; Cream, dense, chalky (4050)

LS; Cream/lt gray, fine crystalline, very foss, varigated w/fair intergranular/moldic por, sfo (brown), faint odor (4053/10' increase 4053/30')

LS; Cream/lt gray, fine crystalline to dense, chalky, cherty (4058)

SH; Black/green/red (4065)

LS; Gray, dense, sl ool, cherty + SH; Red/gray (4090)

LS; Gray, fine crystalline to dense, foss, very chalky (soft white), no vis por (black), no vis por + SH; Black/SH; Gray-silty (4320)

LS; Cream/tan, dense, foss, chalky + SH; Red, sandy, tr SH; Black, tr SD; Clear, fg, friable, calc (4330)

LS; Cream/white/tan, dense, foss, chalky + SD; Red/gray, calc, shaley (4340)

LS; Cream/white, dense, chalky + SH; Gray/green, tr SD; Gray/clear, fine to coarse, sr, friable (4350)

LS; Cream/gray, dense + SH; Red, sandy (fine to coarse), w/wef cluster, poorly sorted sd (4460)

Morgan Mud Check Vis 65W 9.4W 6.0

SH; Red, sandy, SD; Gray, fg calc + LS; Gray/brown, dense + SH; Green, waxy (4370)

SD; Clear, fine to coarse, subangular, poorly sorted, hard + SH; Red, sandy/SH; Green-platey, SH; Gray, blocky (4377)

SH; Red, sandy + SD; Clear, coarse, loose w/wef clusters + LS; Gray/cream, dense, w/mustard yellow/red shale discoloration (4377/20'-4390)

SH; Red, sandy + SD; Clear, coarse, loose w/wef clusters + SD; White, fine grained, calc + LS; Cream, dense, chalky (4400) + tr Chert; Brown, blocky, Chalky +SH; Green/gray (4410)

SH; Red, sandy + SH; Black/olive + LS; Gray, dense, chalky + SD; Clear, fine to med, well-cem (4420)

SH; Red, sandy, hard, blocky + SH; Green, SD; Gray, fine grained, trace Chert, Brown + LS; Cream, foss, chalky (4430)

Chert; Yellow/white, sharp, sl foss + tr LS; Tan/gray, dense + tr SH; Red; Red (4434/20')

Chert; Yellow/white, blocky, tr LS; Cream, dense, foss, few loose crin stem frag + SH; Red, hematite nodes (44450)

Chert; Yellow/gray, sharp-angular + SH; Brick red/green + LS; Cream, dense, chalky (4460)

Chert; Yellow/gray + Dolo; Tan, dense tr LS; Gray, dense + SH; Gray (4470)

Dolo; Tan, dense + Chert; Yellow/white, w/tr tripolitic, blocky + SH; Green (4475)

Dolo; Gray, fine crystalline to dense, chalky + Chert; White-opaque (4475/30')

Dolo; Cream/gray, fine to med crystalline, chalky + Chert; Yellow/gray (4475/60')

RTD 4475'
 Drift Survey:
 1/2" @ 346'
 1/2" @ 3350'
 1/2" @ 4058'
 1 1/2" @ 4475'
 1" @ 3850'

DST #1
 3902 to 3926'
 30-60-30-90 min
 IF: Bottom of bucket in 12 min.
 ICI: Return surface blow built to 1 1/4 in.
 ICI: Return surface blow built to 1 in.
 died in 40 min.
 Recovered:
 240' Gassy oil (15% gas)
 60' Gassy oil cut mud (10% gas/55% mud)
 SIP: 1259-1259#
 FP: 21-8/95-121#
 HP: 1956-1946#
 BHT: 116F
 Oil Gravity: 35 API

DST #2
 3845-3902'
 45-60-45-90
 ICI: Built to 6 1/2 in.
 ICI: Surf blow started in 30 min/died in 40 min.
 FF: Bottom of bucket in 25 min.
 FCI: Built to 6 in
 FCI: Surf blow started in 25 min/died in 45 min.
 60' Gassy mud cut oil 20% G 30% mud

DST #3
 3902 to 3926'
 30-60-30-90 min
 IF: Bottom of bucket in 12 min.
 ICI: Return surface blow built to 1 1/4 in.
 ICI: Return surface blow built to 1 in.
 died in 40 min.
 Recovered:
 240' Gassy oil (15% gas)
 60' Gassy oil cut mud (10% gas/55% mud)
 SIP: 1259-1259#
 FP: 21-8/95-121#
 HP: 1956-1946#
 BHT: 116F
 Oil Gravity: 35 API

DST #4
 3965-3982'
 30-60-30-90'
 IF: Bottom of bucket in 18 min.
 FCI: Bottom of bucket in 25 min.
 ICI: 50% return blow built to 1 1/4 in.
 died back to surface.
 FF: Bottom of bucket in 25 min.
 Recovered:
 140' Gassy oil 25% gas
 60' Gassy oil cut mud 15% gas/20% oil
 SIP: 1272-1272#
 FP: 35-65/65-99#
 HP: 2000-1988#
 BHT: 117F
 Oil Gravity: 37 API

DST #5
 4014 to 4058'
 45-60-45-90'
 IF: Blow built to 4 in.
 FF: Blow built to 5 in.
 No return blow on shut-ins
 Recovered: 15 ft Gassy oil 10% gas
 75' Gassy oil cut mud 10% gas/25% oil

SIP: 1217-1220#
 FP: 15-45-15-45#
 HP: 2020-2009#
 BHT: 115F
 Oil Gravity: 35 API