

Southern States Oil Co.
Brown B, A-1, C E/2 F/2 NE/4, Section 31-13S-14W
Jesse County, Kansas

15-167-21882

5 1/2" PRODUCTION CASING SET

CONTRACTOR: Woodman-Ianitti

COMMENCED: 3-3-82

COMPLETED: 3-11-82

ELEVATIONS: 1873' K.B., 1870' D.F., 1868' G.L.

CASING PROGRAM: Surface: 8 5/8" @ 596'
Production: 5 1/2" @ 3320 1/2'

MEASUREMENTS: All depths measured from the Kelly Bushing

DRILLING TIME: One (1) foot drilling time recorded by geologist, surface to the R.T.D.

SAMPLES: Samples saved 2700' to the R.T.D.

ELECTRIC LOG: None

FORMATION TESTING: There were five drill stemtests run by Sun Testers

<u>FORMATION</u>	<u>SAMPLE DEPTH</u>	<u>SUB-SEA DATUM</u>
Anhydrite	Not recorded 920'	(+945)
Topeka	2761	-888
Heebner	2986	-1113
Toronto	3004	-1131
Lansing	3037	-1164
Arbuckle	3303	-1430
Rotary Total Depth	3324	-1451

All tops and zone determinations were made from a correlation of a drilling time log and sample analysis.)

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

TOPEKA SECTION
2761-2765

Limestone with quartz inclusions, spotty pin-point porosity, good stain and saturation(100%) Fair show of free oil and faint odor in fresh samples. Perforate.

DRILL STEM TEST #1 2740-2825

Open: I.F. 45"
F.F. 60"

Blow: Weak building

Recovery: 35' oil-specked mud

Pressures: ISIP 215 psi
FSIP 218 psi
IFP 46-49 psi
FFP 58-61 psi
HSH 1500-1476 psi

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TORONTO SECTION
3009-3012

Limestone cream finely crystalline, chalky, scattered pin-point porosity, scattered very light stain. No show of free oil and faint odor in fresh samples.



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LANSING SECTION
3038-3041

Limestone buff finely crystalline, cherty, poor pin-point porosity, scattered brown stain. Faint show of free oil and weak odor in fresh samples.

3062-3066

Limestone grey oocastic, slightly cherty, fair oocastic porosity, fair golden stain and saturation. Fair show of free oil (gassy) and faint odor in fresh samples.

3081-3083

Limestone, grey, oolitic-oocastic, slightly cherty, fair oocastic porosity, fair scattered stain and saturation. Fair show of free oil (gassy) and fair odor in fresh samples.

DRILL STEM TEST #2 3044-3095

Open: I.F. 45"
F.F. 45"
Blow: Weak building to strong
Recovery: 320' muddy water *140' muddy water 180' water*
Pressures: ISIP 434 psi
FSIP 429 psi
ISP 58-117 psi
FFP 164-199 psi
HSH 1673-1651 psi

3124-3126

Limestone, cream, fossiliferous, highly cherty, poor spotty pin-point-fossilcast porosity, spotty light stain plus abundant opaque chert. Show of free oil and questionable odor in fresh samples.

3138-3150

Limestone white, finely crystalline, oocastic, cherty, good oocastic porosity (barren) plus abundant white chalk. No shows of oil.

3199-3202

Limestone buff-cream, finely crystalline, chalky to cherty in part, poorly developed pin-point porosity, scattered light stain. Show of free oil and faint odor in fresh samples.

3217-3222

Limestone grey, sub-oocastic-oocastic, slightly cherty, few pieces good scattered oocastic porosity, few pieces good stain and saturation. Fair show of free oil and weak odor in fresh samples.

DRILL STEM TEST #3 3187-3240

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Open: I.F. 45"
F.F. 30"
Blow: Weak, died in 13"
Recovery: 5' mud *all of B. made*
Pressures: ISIP 37 psi
FSIP 37 psi
IFP 46-35 psi
FFP 39-35 psi
HSH 1800-1773 psi

Best circulation at 3253'. No returns.

ARBUCKLE SECTION
3303-3310

Dolomite, light-grey, dense, cherty, no shows of oil.

3312-3317

Dolomite, grey, medium crystalline, slightly cherty, scattered intercrystalline porosity, fair stain and saturation. Fair show of free oil and good odor in fresh samples. Perforate.

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DRILL STEM TEST #4 3308-3316

Open: I.F. 45"
 F.F. 45"
 Blow: Weak, died in 16"
 Recovery: 15' muddy oil 70% oil
 Pressures: ISIP 990 psi
 FSIP 990 psi
 IFP 70-70 psi
 FFP 82-82 psi
 HSH 1812-1800 psi

3321-3324

Dolomite, grey, medium crystalline, sandy, good intercrystalline porosity, fair scattered stain. Fair show of free oil and odor in fresh samples.

DRILL STEM TEST #5 3309-3324

Open: I.F. 30"
 F.F. 30"
 Blow: Weak building to strong
 Recovery: 440' clean oil
 180' muddy oil
 80% oil, 15% water, 5% mud
 Pressures: ISIP 956 psi
 FSIP 956 psi
 IFP 105-140 psi
 FFP 246-258 psi 246-248
 HSH 1754-1743 psi

ROTARY TOTAL DEPTH 3324 (-1451)

RECOMMENDATIONS: It was recommended that 5½" casing be set and cemented at 3320½', 3½' off bottom and the following zones to be tested.

1. Arbuckle-Open hole completion methods.
2. Arbuckle 3312-3317 (Perforate)
3. Topeka 2761-2764 (Perforate)

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 WICHITA, BRANCH

Respectfully submitted,

Brad Hutchison
 Brad Hutchison

BJH:ch