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Quinoco Petroleum Inc.
HUCK "A" #12
SW SW NW; Section 31-11S-20W
Ellis County, Kansas

5½" PRODUCTION CASING SET

CONTRACTOR: Red Tiger Drilling Company (Rig #7)
COMMENCED: August 1, 1989
COMPLETED: August 10, 1989
ELEVATIONS: 2283' K.B. 2281' D.F. 2278' G.L.
MEASUREMENTS: All measurements from Kelly Bushing.
CASING PROGRAM: Surface: 8 5/8" @ 262'
Production: 5½" @ 3967'
SAMPLES: Samples saved and examined 3100' to R.T.D.
DRILLING TIME: Drilling time recorded and kept 3100' to R.T.D.
ELECTRIC LOG: By Halliburton Logging Services Inc.: Dual Induction Short Guard Log, Spectral Density Dual Spaced Neutron II Log, Micro Log and Coral WEL Cal.
FORMATION TESTING: There were three (3) drill stem tests run by Trilobite Testing.

<u>FORMATION</u>	<u>LOG DEPTH</u>	<u>SUB-SEA DATUM</u>
Anhydrite	1692	+591
Topeka	3307	-1024
Heebner	3524	-1241
Toronto	3548	-1265
Lansing	3562	-1279
Base Kansas City	3773	-1490
Marmaton	3817	-1534
Conglomerate	3831	-1548
Conglomerate Chert	3845	-1562
Arbuckle	3866	-1583
Rotary Total Depth	3968	-1685
Log Total Depth	3969	-1686

(All zones and tops corrected to log measurements.)

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

TOPEKA SECTION

3331-3340' Limestone, gray to beige, finely crystalline, dolomitic, sucrosic, few granular, fair porosity; no shows.

3357-3362' Limestone, gray fossiliferous, few mealy, poorly developed porosity; no shows.

3374-3378' Limestone, gray; highly fossiliferous, fair porosity; no shows.

3384-3399' Limestone, beige, sucrosic, dolomitic, fair porosity; questionable discoloration; no show of free oil or odor in fresh samples.

3418-3429' Limestone, gray, medium crystalline, fossiliferous, fair to good intercrystalline porosity; no shows.

PLATTSMOUTH

- 3469-3475' Dolomite, brown to beige, sucrosic, finely crystalline in part; fair intercrystalline to pin point porosity; fair to good brown stain and saturation; show of free oil and fair odor in fresh samples, plus trace of limestone; white to gray, dolomitic, fair porosity, spotty stain; show of free oil.
- 3487-3494' Limestone, gray to brown, fossiliferous, sparry calcite cement replacement in few porosity; trace chert inclusions, fair stain and saturation; show of free oil and faint odor in fresh samples.

TORONTO SECTION

- 3548-3570' Limestone, white to gray, cherty, dense; trace white fossiliferous limestone at base; trace light brown stain; no show of free oil or odor in fresh samples.

LANSING SECTION

- 3562-3570' Limestone, white to cream, fossiliferous, chalky increasingly cherty; trace spotty stain; no show of free oil or odor in fresh samples.
- 3596-3602' Limestone, beige, dolomitic, slightly cherty; fair pin point porosity, fair brown stain and saturation; show of free oil and fair odor in fresh samples.
- 3618-3626' Limestone, gray, fine to medium crystalline, fossiliferous, good intercrystalline to vugular type porosity; golden brown to gray stain and saturation; show of free oil and faint odor in fresh samples.
- 3646-3653' Limestone, gray to white, highly fossiliferous; few sub oocastic, chalky in part, good dull gray to black to brown stain and saturation; show of free oil and fair odor in fresh samples. Fair to good intercrystalline to vugular type porosity, sparry calcite crystal replacement in some porosity.
- 3658-3662' Limestone, white to cream; slightly fossiliferous, chalky, trace sub oocastic limestone, no shows.
- 3701-3710' Limestone, gray to white, finely crystalline, slightly cherty; few fossiliferous, poorly developed porosity; no shows.
- 3718-3726' Limestone, brown to gray; fossiliferous, chalky, trace brown to golden brown stain; show of free oil and faint odor in fresh samples.
- 3738-3746' Limestone, white to beige; finely crystalline, slightly chalky, fair to good intercrystalline to pin point porosity; fair to good golden brown stain and saturation; show of free oil and good odor in fresh samples.
- 3753-3759' Limestone, gray fossiliferous, slightly chalky; fair porosity, dull gray to black to dark brown stain; show of free oil and faint odor in fresh samples.

DRILL STEM TEST #1 3726-3770'

Open: I.F. 30"
F.F. 60"

Blow: Weak to fair (4")

Recovery: 80' mud with few oil specks
120' water

Pressures: ISIP 764 psi (60")
 FSIP 775 psi (120")
 IFP 22-44 psi
 FFP 66-122 psi
 HSH 1993-1950 psi

MARMATON SECTION

3817-3823' Limestone, white to rose to gray; sandy, chalky, few cherty, no shows.

CONGLOMERATE SECTION

3845-3862' Chert, gray to white to tan, opaque to boney, dolomitic; few with chalky luster, spotty dark brown to brown edge staining; show of free oil and fair odor in fresh samples.

ARBUCKLE SECTION

3866-3870' Dolomite; tan to gray, medium crystalline, slightly cherty, poor visible porosity; trace tan oocastic dolomite, fair stain and saturation; show of free oil and fair odor in fresh samples.

3870-3876' Dolomite, beige, sucrosic, fair porosity; good stain and saturation; show of free oil and good odor in fresh samples.

DRILL STEM TEST #2 3867-3876'

Open: I.F. 30"
 F.F. 60"
 Blow: Weak to strong
 Recovery: 200' gas in pipe
 435' clean gassy oil
 95' mud cut gassy oil
 Pressures: ISIP 720 psi (60")
 FSIP 709 psi (120")
 IFP 33-100 psi
 FFP 122-200 psi
 HSH 2048-2004 psi

3876-3880' Dolomite, as immediately above; show of free oil, odor.

3882-3891' Dolomite, medium crystalline; fair intercrystalline to vugular type porosity; dark brown stain and saturation; fair show of free oil and fair odor in fresh samples.

DRILL STEM TEST #3 3882-3891'

Open: I.F. 30"
 F.F. 60"
 Blow: Strong
 Recovery: 300' gas in pipe
 870' clean gassy oil
 315' oil cut water
 Pressures: ISIP 621 psi (60")
 FSIP 632 psi (120")
 IFP 100-300 psi
 FFP 355-477 psi
 HSH 2026-1995 psi

3891-3900'	Dolomite, gray, slightly sandy, sucrosic; few finely crystalline, fair porosity, dull gray to brown to dark brown stain; show of free oil and fair odor in fresh samples.
3901-3909'	Dolomite, as above; plus gray to white to pink; finely crystalline, slightly cherty, spotty stain; show of free oil and fair odor in fresh samples.
3910-3919'	Dolomite, gray to coarse crystalline, decreasing stain and saturation; show of free oil (50% dead) and fair odor in fresh samples.
3925-3934'	Dolomite, gray to white, medium crystalline; fair intercrystalline to vugular type porosity; trace stain, no show of free oil or odor in fresh samples.
3940-3950'	Dolomite, as above; plus pink finely crystalline, dolomite, trace white boney chert, no shows.
3950-3960'	Dolomite, gray to white to pink; fair to good intercrystalline porosity; no shows.
3960-3968'	Dolomite, as above; plus white boney chert; no shows.
Rotary Total Depth	3968'
Log Total depth	3968'

RECOMMENDATIONS: On the basis of the favorable structural position and the positive results of the drill stem tests, it was recommended that 5½" production casing be set and cemented at 3967' (one foot off bottom) and the following zones be tested:

- 1) Arbuckle 3882-3885 Perforate
- 2) Arbuckle 3868-3874 Perforate

Respectfully submitted,


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