

26-16-11W^{pl}



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GEOLOGICAL REPORT

NATIONAL PETROLEUM RESERVES, INC.

NO.1 HOMOLKA
SECTION 26-16S-11W
375' W of C E/2 NE SE
BARTON COUNTY, KANSAS

JUN 25 1984

State Geological Survey
WICHITA BRANCH

W11 -dl -ds

Operator: National Petroleum Reserves, Inc.
 260 North Rock Road, Suite 215
 Wichita, Kansas 67206

Well: No. 1 Homolka

Location: 375' W of C E/2 NE SE Section 26-16S-11W
 Barton County, Kansas

Wellsite: Flat plowed field

Field: Kraft-Prusa

Elevation: 1901 GL 1906 KB

Casing: Surface: 8 5/8" @ 397'/175 sacks cement
 Production: 5 1/2" @ 3411/150 sacks cement

Commenced: May 26, 1984

Completed: May 31, 1984

Total Depth: RTD: 3413 -1507 LTD: 3412 -1506

Samples: Dry samples were examined from 2600 feet
 to 2850 feet. Wet samples were examined
 from 2850 feet to rotary total depth.

Contractor: LOBO Rig # 1

Formation Testing: There were two (2) open hole drillstem
 tests by Western Testers, Inc.

Electrical Logs: Gamma Ray, Neutron, Resistivity, Caliper
 and Compensated Density from 2600 feet
 to rotary depth by Electra Log, Inc.

FORMATION TOPSSAMPLESELECTRA LOG

Anhydrite	710	+1196	706	+1200
Howard	2610	- 704	2609	- 703
Severy	2629	- 723	2628	- 722
Topeka	2645	- 739	2646	- 740
Heebner	2942	-1036	2938	-1032
Toronto	2963	-1057	2958	-1052
Douglas	2974	-1068	2971	-1065
Brown Lime	3044	-1138	3042	-1136
Lansing	3059	-1153	3064	-1158
Base Kansas City	3309	-1403	3326	-1420
Chert Conglomerate	3349	-1443	3350	-1444
Reworked Arbuckle	3362	-1456	3360	-1454
Arbuckle	3377	-1471	3374	-1468
Total Depth	3413	-1507	3412	-1506

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SAMPLE ZONE DESCRIPTIONS

(NOTE) All zone depths are adjusted to log depths.

HOWARD

There were no shows of oil/gas in the Howard from 2609 feet to 2628 feet.

SEVERY

There were no clean sandstones developed in the Severy from 2628 feet to 2646 feet.

TOPEKA 2688-2696

Limestone; brown, subblocky, sucrosic, very friable, very good intercrystalline porosity; common oil stain, yellow fluorescence, slight white cut from dried cuttings.

2776-2784

Limestone; white, blocky, firm, fine crystalline; fair intercrystalline porosity; trace oil stain, bright yellow fluorescence, fair white cut from dried cuttings.

2816-2824

Limestone; white, light brown, subblocky, firm to moderately hard; fine crystalline, fusulinids; fair intercrystalline porosity, no oil stain, fluorescence or cut.

TORONTO 2958-2964

Limestone; white, blocky, firm, fine crystalline; fair to moderately good intercrystalline and pinpoint vugular porosity; trace light brown oil stain, very light yellow fluorescence. No odor, streaming white cut, trace free oil when crushed.

NOTE: This is a very good show for the Toronto in this area.

DOUGLAS

There were no sandstones or limestones developed in the entire Douglas section from 2971 feet to 3042 feet.

LANSING/KANSAS CITY 3092-3102

Limestone; white, very light brown, blocky, firm, fine crystalline; fair intercrystalline and pinpoint vugular porosity; trace light oil stain, light yellow-white fluorescence, very light odor, fair white cut, trace oil film.

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(con't. Lansing/Kansas City)

3138-3140

Limestone; white, blocky, moderately hard, very fine crystalline, oolitic and slightly oolitic; fair intergranular porosity; trace oil stain, light yellow fluorescence; very light odor, white cut, no free oil.

3156-3172

Limestone; light brown, blocky, hard, very fine crystalline; medium developed, medium-sized oolitic, good to very good porosity; increasingly chalky toward bottom, barren, no oil stain, fluorescence, odor or cut.

3236-3244

Limestone; white, light grey, blocky, moderately hard, very fine crystalline, oolitic and slightly oolitic; poor to fair intergranular and pinpoint vugular porosity; trace gassy oil stain, bright white fluorescence, very light odor, good white cut; fair show free oil when crushed.

DRILLSTEM TEST # 1 3217-3256 (rotary)
3213-3254 (log)

Testing periods: 30-60-15-30

Blow: IF: very weak; FF: no blow; Recovered: 15' oil spotted mud;
Pressures: IBHP: 862#; FBHP: 850#; IFP: 50-50#; FFP: 50-50#;
HH: 1706-1706#; Temp. 104° F.

CONGLOMERATE 3350-3360

Chert; red, brown, clear, blocky, hard, tight; no tripolitic; red soft mudstone and trace blue shale, no porous zones; no shows.

REWORKED ARBUCKLE 3360-3374

Dolomite; very light brown, pink, subblocky, firm to friable; fine, medium and very fine crystalline; good intercrystalline porosity in part; few discolored and weathered, with red mudstone and trace chert; no oil stain, fluorescence, odor or cut. (Totally barren).

3374-3381

Dolomite; light brown, blocky, moderately hard; fine to very fine crystalline; fair intercrystalline porosity, trace oolitic dolomite; common oolitic chert, rare oil stain, light yellow fluorescence, moderate odor, white cut, rare free oil.

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DRILLSTEM TEST # 2 3370-3383 (rotary)
3368-3381 (log)

Testing periods: 30-60-30-60

Blow: IF: weak, increasing to fair; FF: fair

Recovery: 67' free oil; 37° Gravity; 124' heavy oil cut gassy mud,
78% oil, 12% gas, 5% water, 5% mud;
62' heavy oil cut mud; 72% oil, 3% water, 25% mud.

Total fluid recovery was 251' equals: 206' oil;
15' gas in oil, 8' water, 22' mud

Pressures: IBHP: 978#; FBHP: 998#; IFP: 68-78#; FFP: 108-127#
HH: 1826-1826#; Temp. 106° F.

3381-3390

Dolomite; very light brown, moderately hard; very fine to fine crystalline; fair intercrystalline porosity, rare oil stain, light yellow-white fluorescence, moderate odor, slight white cut, rare free oil.

3390-3402

Dolomite; white, blocky, hard, very fine to fine crystalline; fair to poor intercrystalline porosity; no oil stain, fluorescence or cut; slight odor.

3402-3412

Dolomite; white, blocky to subblocky, firm to hard, fine to very fine crystalline, trace medium crystalline; fair to moderately good intercrystalline porosity; very rare oil stain, light yellow fluorescence, slight to moderate odor, slight white cut, no free oil.

STRUCTURAL CORRELATION

	N.P.R. #1 Homolka Chief #1 Homolka Chief #1 Krier Pet. Inc.			
	375'W of C E/2			#2 Kraft C
	NE SE	NE NE SE	NW SE NE	NW NE NW
	26-16s-11w	26-16s-11w	26-16s-11w	26-16s-11w
Anhydrite	+1200	+1197	+1196	+1186
Heebner	-1032	-1035	-1023	-1030
Toronto	-1052	-1054	-1042	-1047
Douglas	-1065	-1068	-1055	-1063
Brown Lime	-1136	-1137	-1123	-1132
Lansing	-1158	-1155	-1143	-1152
Base Kansas City	-1420	--	--	-1388
Conglomerate	-1444	--	--	-1429
Arbuckle	-1468	-1468	-1464	-1434
Total Depth	-1506	-1480	-1475	-1471

Arb. & Toronto

69 BOPD (ARB)

25 BOPD (ARB)

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1 Homolka

In view of the favorable structural position of the potentially productive formations, and the good recovery of oil from the Arbuckle, it was recommended that 5½" production casing be set and cemented to further test the No. 1 Homolka.

Electra Log recommends perforating the following zones:

Toronto	2958-2962
Kansas City	3236-3240
Arbuckle	3374-3380

The Arbuckle zone should be perforated and produced first. Should it be desired or necessary to increase production, an acid treatment is recommended.

The Toronto zone can be perforated and acidized for commingled production if the Arbuckle does not produce enough gas to run the engines. This zone should produce some oil also.

The Kansas City zone should be perforated and acidized before the well is abandoned.

All measurements are from the kelly bushing elevation and Electra Log's measurements of formation tops, zones and total depth are taken as correct.

Respectfully,



Michael J. Wreath
Petroleum Geologist

NATIONAL PETROLEUM RESERVES, INC.

26-16-11W
Incl

DAILY WELL REPORT

LEASE: #1 HOMOLKA SURFACE CASING: 396' of 8 5/8" w/150 sacks
300' west of C E/2 NE SE
LOCATION: Sec. 26-16-11W PROD. CASING: 3412' of 5 1/2" w/150 sacks
COUNTY: Barton ELEVATION: G.L. - 1901'; K.B. 1906'
OPERATOR: National Petroleum Reserves, Inc. SPUD: 5/27/84 COMPLETION: 6/22/84
CONTRACTOR: Duke Drilling Co., Inc. NOTIFY: Ted c. Bredehoft
GEOLOGIST: Mike Wreath REF. WELL: Chief Drilling - #1 Homolka
Sec. 26-16-11W NE NE SE

5-26-84 Moving in and rigging up
5-27-84 Set surface pipe; drilling at 956'
5-28-84 Drilling at 2276'
5-29-84 Drilling at 2805'
5-30-84 Ran DST #1 (3217-3256) Lansing zone; weak blow & died; recovered 15' slightly oil cut mud; ISIP 862; FSIP 850; IFP 50-50; FFP 50-50
Drilling at 3258'

Formation	Sample Log	Comparisons
Heebner	2942-1036	1 ft. low
Toronto	2963-1057	3 ft. low
Douglas	2974-1068	Flat
Brown Lime	3044-1138	1 ft. low
Lansing	3059-1153	2 ft. high
Arbuckle	3377-1471	3 ft. low
TOTAL DEPTH	3413-1507	N/A

5-31-84 Ran DST #2 (3370-3383) Arbuckle zone. Recovered 251' total fluid; 67' of clean oil; 124' of heavy oil cut gassy mud; 62' of heavy oil and gas cut mud; no water; ISIP 978; FSIP 998; IFP 68-78; FFP 108-127; Drilled to 3413'; ran log; log shows zones of interest in Toronto (2958-2962) and Arbuckle (3374-3390) Arbuckle zone will be perforated.
SET PRODUCTION PIPE.
6-12-84 Moving in and rigging up double drum unit.
6-13-84 Completed swabbing down; preparing to perforate
6-14-84 Perforated Arbuckle (3375-3380); swabbed .5 bbl an hour; 1 1/2% water; 1/2% mud, 98% oil; treated with 250 gal. of 15% acid; will continue to swab back and test production following overnight fill-up.
6-15-84 Overnight fill-up 625' of 99% oil; 1% water (gravity test 42 by Halliburton) treated with 1,500 gal. of 20% gel acid; swabbed down and recovered 5.25 bbls fluid per hour; 92% oil; 8% water; will run rods and tubing on Monday; next report when well pumping.
6-25-84 Well completed for 73 bbls of oil per day (actual: 72.66 bbls.) Pumping unit at 5 1/2 strokes, which is as slow as we can run the unit.
(NOTE: It is a policy of NPR that once a pumping unit has been installed and is pumping oil, NPR will pump the new well for 3 full days, recording each days production. From THIS 3-day total, an average of the 3 day period is utilized for the lease FINAL REPORT and does not necessarily reflect the future BOPD production.)

MAY 21 1987

FINAL REPORT

KANSAS GEOLOGICAL SURVEY
WICHITA BRANCH

RECEIVED
STATE CORPORATION COMMISSION

MAY 21 1987

CONSERVATION DIVISION
Wichita Kansas