

5-7-19W

November 7, 1960

Sierra Petroleum Co., Inc.
208 Petroleum Building
Wichita, Kansas

Houston Petroleum Company
411 Union National Building
Wichita, Kansas

Re: Sierra & Houston Petroleum Co.
Long #1
SE SE SW, Section 5-7S-19W
Rooks County, Kansas

Gentlemen:

Samples and drilling time from the above captioned test were examined from 2850 feet to 3562 feet, rotary total depth.

Commenced Drilling: 10-26-60	Elevation: 1986' K.B.
Completed Drilling: 11-5-60	1983' D.F.
Contractor: Sierra Petroleum Co., Inc.	Surf. Csg: 8-5/8" @ 182'
Rig #4	Prod. Csg. 5-1/2" @ 3525' w/175 sx.

The following tops were determined from sample analysis and electric log. All measurements were taken from the top of the rotary bushing.

<u>FORMATION TOPS</u>	<u>SAMPLE</u>	<u>ELECTRICAL LOG</u>
Dakota	--	920 (+1066)
Anhydrite	--	1509 (+ 477)
Topeka	2947 (- 961)	2944 (- 958)
Heebner	3146 (-1160)	3145 (-1159)
Toronto	3170 (-1184)	3169 (-1183)
Lansing	3187 (-1201)	3186 (-1200)
Base Kansas City	3366 (-1380)	3364 (-1378)
Rework Arbuckle	3431 (-1445)	3426 (-1440)
Arbuckle	3444 (-1458)	3440 (-1454)
Reagan	3537 (-1551)	3535 (-1549)
Granite	3557 (-1572)	3556 (-1571)
Total Depth	3572 (-1586)	3571 (-1585)

POROUS ZONES, STAININGS & TESTS

TOPEKA - 2944 (-958)

2975-2980	Limestone, tan, sucrosic, spotted staining, fair saturation, fair porosity.
2988-2992	Limestone, tan, sucrosic, chalky, spotted staining and saturation, poor porosity.

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POROUS ZONES, STAININGS & TESTS (Cont'd.)

3097-3100 ✓

Limestone, dolomitic, buff-tan, fine-medium crystalline, fair stain & saturation. Fair show free oil.

3101-3105 ✓

Dolomite, buff, sucrosic-medium crystalline, fair spotted stain & saturation, fair odor, fair-poor porosity. Fair show free oil.

DRILL STEM TEST #1

3090-3116. Open 45 minutes. Strong blow thruout. Recovered 145' slightly oil cut mud, 120' oil cut watery mud, 720' oil cut salt water. IBHP 1310#/20", FBHP 760#/20". FP 200-430#.

3121-3125 ✓

Limestone, buff, fine-coarse crystalline, fossiliferous, fair staining & saturation, fair vugular porosity. Fair show free oil.

TORONTO - 3169 (--1183)

3169-3180 ✓

Limestone, white-light gray, medium crystalline, fossiliferous, fair vugular porosity, spotted staining, slight odor. Small show free oil.

DRILL STEM TEST #2

3171-3184. Open 1 hour. Weak-fair blow thruout. Recovered 60' gas in pipe, 25' free oil, 25' heavy oil cut mud. IBHP 330#/20", FBHP 240#/20". FP 0-0#.

LANSING - 3186 (-1200)

3188-3195
3199-3205 ✓

Dolomite, limy, light gray, fossiliferous, medium-coarse crystalline, trace spotted staining, fair-poor porosity, fair odor, trace free oil.

DRILL STEM TEST #3

3189-3205. Open 1 hour, weak-fair blow thruout. Recovered 15' slightly oil stained mud, 120' salt water. IBHP 870#/20", FBHP 820#/20". FP 0-40#.

3225-3229

Limestone, light gray-white, slightly chalky, slightly oolitic, trace spotted staining, poor porosity. No free oil.

3240-3246 ✓

Limestone, buff-light gray, fine crystalline, fossiliferous, trace spotted staining, poor porosity, good odor, very small show free oil.

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POROUS ZONES, STAININGS & TESTS (Cont'd.)

3258-3264 ✓ Limestone, buff, fine-medium crystalline, fair-poor porosity, spotted staining, good odor, Some free oil.

3278-3286 ✓ Dolomite, buff, fine-medium crystalline, spotted light staining, trace pinpoint porosity, good odor. Slight show free oil.

DRILL STEM TEST #4

3232-3285. Open 1 hour, weak to good blow thruout. Recovered 120' oil cut mud. IBHP 930#/20", FBHP 790#/20". FP 0-0#.

3295-3298 ✓ Limestone, light gray, fine crystalline, trace spotted staining, trace pinpoint porosity, very small show free oil.

3316-3318 ✓ Limestone, buff-light gray, fair vugular porosity, spotted staining & saturation, fair odor. Show free oil.

3325-3329 Chert, yellow-brown, tan, fossiliferous, poor porosity. No show.

3337-3342 Limestone, buff, fine crystalline, poor porosity, trace spotted staining. No free oil.

3354-3362 ✓ Limestone, buff, fine crystalline, trace fair pinpoint vugular porosity, spotted staining, very slight odor. Very small show free oil.

DRILL STEM TEST #5

3320-3367. Open 1 hour. Weak blow for 1 minute. Recovered 7' mud. IBHP 1070#/20 minutes, FBHP 110#/20 min. FP 0-0#.

REWORKED ARBUCKLE - 3426 (-1440)

3426-3440 Limestone, buff, dolomitic, fine-medium crystalline, spotted dark staining, fair-poor porosity. No free oil.

ARBUCKLE - 3440 (-1454)

3452-3466 ✓ Dolomite, buff, medium -coarse crystalline, fair crystalline porosity, fair spotted staining & saturation. Very good odor, good show free oil.

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POROUS ZONES, STAININGS & TESTS (Cont'd.)

DRILL STEM TEST #6

3452-3464. Open 1 hour. Weak-good blow thruout. Recovered 60' free oil, 30' heavy oil cut mud. IBHP 700#/20", FBHP 360#/20". FP 0-0#.

The remainder of the Arbuckle consisted of dolomite, buff, light gray, fine-medium-coarse crystalline, sandy, glauconitic, staining decreasing with depth.

REAGAN - 3535 (-1549)

3535-3557

Sandstone, fine-medium-coarse grained, some clusters, round-subround, clear-frosted, good porosity. No shows.

GRANITE WASH - 3556 (-1571)

3556-3572

Sandstone, coarse grained, angular, clear-frosted, mixed with biotite, very porous. No shows.

ROTARY TOTAL DEPTH - 3572 (-1586)

REMARKS

Structurally the Long #1 was 2-4 feet lower on the Lansing than the surrounding wells. Fair drill stem tests were obtained in the Toronto, Lansing and Arbuckle and decision was made to run 5-1/2 inch casing to 3525 feet and cemented with 175 sacks cement 11-4-60.

Respectfully submitted,

By *A. W. Stude*
A. W. Stude

AWS:pg