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GREEN & GREEN
CONSULTING PETROLEUM GEOLOGISTS

P. O. BOX 503 309 WEST 6th STREET
HAYS, KANSAS 67601

4. 13-21W
AREA CODE 913
625-9023 OR 625-5155

February 28, 1982

GEOLOGIC REPORT

Southern States Oil Co. Lang #2
100' E NE NE NE Sec. 4-13-21W
Trego County, Kansas
Commenced: 2/19/82
Completed: 2/26/82

Pipe Record:
8 5/8 @ 260' w/170 sks
5 1/2 @ 3856' w/150 sks
Anhydrite: 1573-1621
Drilled by: Rains & William
Rig #4

ELEVATION 2203 K.B.
2198 G.L. 2201 D.F.

FORMATION DATA
(Corrected to Pipe Strap)

State Geological Survey
WICHITA, BRANCH

<u>FORMATION</u>	<u>MINUS DATA</u>	<u>DEPTH</u>
TOPEKA	-1025	3228
HEEBNER	-1253	3456
TORONTO	-1274	3477
LANSING-KANSAS CITY	-1288	3491
BASE KANSAS CITY	-1529	3732
MARMATON CHERT	-1596	3799
ARBUCKLE	-1650	3853
R.T.D.	-1660	3863

Cores: None.
Drill Stem Tests: Two, see below.
Electric Logs: None.

FORMATION DESCRIPTIONS

TOPEKA 3228-3455:

This section consisted of mostly barren limestone and shale stringers. There was a trace of free oil and staining in a fine crystalline, chalky limestone (3420-30). This probably should be tested before abandoning.

TORONTO 3477-87:

There were no oil shows.

LANSING-KANSAS CITY 3491-3732:

A, B Bench 3491-3514 A trace of asphaltic stain in a white to offwhite, fine crystalline, slightly chalky limestone.

RECEIVED
STATE CORPORATION COMMISSION

STATE RECEIVED
MAR 26 1982

CONSERVA
Wichita

MAR 29 1982

KANSAS GEOLOGICAL SURVEY DIVISION
WICHITA, KANSAS

4-13-21W

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C Bench 3524-40 A trace to minor free oil, staining and faint odor in an offwhite, fine crystalline, fossiliferous, friable limestone with intercrystalline and fossiliferous porosity. This should be tested before abandoning well (3526-30). This was included in D.S.T. No. 1.

DRILL STEM TEST No. 1 3508-3538:

Open 60 minutes, recovered 5' mud. Flow pressures 20 to 41 pounds, 30 minute initial bottom hole pressure 769 pounds, 30 minute final bottom hole pressure 708 pounds.

D Bench 3545-58 A trace of free oil and staining in an offwhite to tan, fine crystalline, chalky limestone. Did not warrant testing.

E, F Bench 3562-84 A trace of light staining in an offwhite to tan, fine crystalline fossiliferous limestone with intercrystalline porosity (3580-84). This might be tested before abandoning well.

G Bench 3588-3616 A trace of light staining in a white to offwhite, fine crystalline, chalky, fossiliferous, cherty, mostly barren limestone.

H Bench 3626-42 A trace of staining and faint odor when broken in an offwhite to gray, fine crystalline chalky to firm limestone. This should be tested before abandoning well.

I Bench 3650-67 A trace of tarry oil and staining in an offwhite to tan, fine crystalline, fossiliferous, tight, chalky limestone.

J Bench 3672-87 A trace of asphaltic residue and staining in a white to offwhite, fine crystalline, chalky limestone, with pin point vugular porosity.

K Bench 3695-3708 A trace of tarry oil and stain in an offwhite to gray, fine crystalline, slightly chalky limestone.

L Bench 3713-3732 Asphaltic residue in a white to offwhite, fine crystalline, tight, fossiliferous limestone.

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MARMATON CHERT 3799-3840:

A trace of free oil, staining and very faint odor in an offwhite to tan, fine crystalline, mealy friable weathered, varicolored, cherty limestone. This should be tested before abandoning well.

ARBUCKLE 3853-T.D.:

Minor to adequate free oil, staining and good odor in a white to tan, fine crystalline, rhombic, friable, dolomite with intercrystalline and vuggy porosity. This was included in D.S.T. #2.

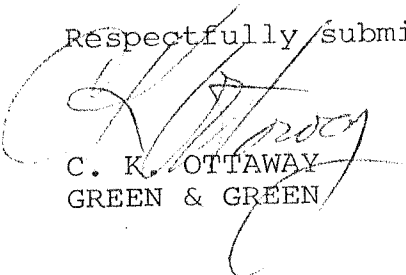
DRILL STEM TEST No. 2 3832-63:

Open 90 minutes, recovered 44' HOCM (48% oil), 180' MCO (82 to 96% oil). Flow pressures 41 to 142 pounds, 30 minute initial bottom hole pressure 1092 pounds, 30 minute final bottom hole pressure 1031 pounds.

RECOMMENDATIONS

It was recommended and confirmed by all parties to set pipe and complete the Arbuckle open hole. The Lansing-Kansas City should be tested before abandoning well. These zones have been noted in the above formation descriptions.

Respectfully submitted,


C. K. OTTAWAY
GREEN & GREEN

CKO/gc

State Geological Survey
WICHITA, BRANCH

DRILLER'S LOG

COMPANY: Southern States Oil Co.

SEC. 4 T. 13S R. 21W

LOC. NE NE NE (100' E of C)

WELL NAME: Lang #2

COUNTY: Trego

RIG NO. #4

TOTAL DEPTH 3865'

ELEVATION

COMMENCED: 2-19-82

COMPLETED: 2-26-82

CONTRACTOR: Rains & Williamson Oil Co., Inc.

CASING RECORD:

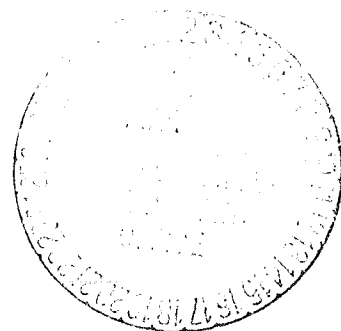
SURFACE: 8 5/8" @ 260' w/170 sx. 60/40 poz., 2% gel, 3% cc.

PRODUCTION: 5 1/2" @ 3856' w/150 sx. Hawco Type A.

LOG

(Figures Indicate Bottom of Formations)

Sand & Lime	130
Sand	1042
Sand & Shale	1574
Shale	2500
Shale & Lime	3172
Lime & Shale	3540
Lime	3580
Lime & Shale	3665
Lime	3865
<u>ROTARY TOTAL DEPTH</u>	<u>3865</u>



STATE OF Kansas)

COUNTY OF Sedgwick)

SS: