

G. L. ERWIN (b) NCT-2 WELL NO. 4

Spudded 17 1/2" hole 8:00 p.m., March 10, 1962. Ran 240' of 13 3/8" O.D. casing and cemented at 255' with 350 sx neat. Plug at 225'. Cement circulated. Tested before and after drilling plug for 30 minutes with 600 PSI. Tested O.K. Job complete 6:45 p.m., March 12, 1962.

Ran 130' of 10 3/4" O.D. casing and 3328' of 9 5/8" O.D. casing and cemented at 3469' DV Tool at 2799', cement 1st stage with 250 sx neat, plug at 3439', cement circulated, 2nd stage with 800 sx neat, cement did not circulate. Top of cement by temperature survey, 1875'. Tested before and after drilling plug for 30 minutes with 800 PSI. Tested O.K. Job complete 10:00 p.m., March 23, 1962.

DST No. 1, From 6785' to 6970' Tool open 90 minutes with strong blow. GTS in 5 minutes. No liquids to surf. Gas, 180 MCFPD Rec. 240' muddy sul water, 630' black sul water, NS oil. 30 MI&FSIP - 2836. IFP - 180. FFP - 331. HI&HO - 3065. Job complete 3:30 p.m. April 5, 1962.

DST No. 2, From 6994' to 7151' Tool open 3 hours with strong blow. GTS 13 minutes. OTS 1 hour 25 minutes. Flow 1 hour 35 minutes 10 BM, 41 BO, 5/8" bottom choke, 1/2" surface choke. FP 150. Rev out 33 BO. Gr 47.30 MISIP - 2549. IFP - 1302. FFP - 1754. 30 MFSIP - 2322. HI - 3441. Ho - 3422. Complete 2:30 p.m. April 7, 1962.

DST No. 3, From 7180' to 7300' Tool open 90 minutes with strong blow. GTS 10 minutes. Rec 500' SW, 750' HOGCM, 5000' oil. Gr 35. 30 MISIP - 2540. IFP - 600. FFP - 2200. 30 MFSIP - 2540. HI - 3590 HO - 3480. Job complete 9:30 p.m. April 8, 1962.

DST No. 4, From 7385' to 7459' Tool open 90 minutes with good blow. Rec. 90' DM, 180 MC sul water, 860' sul water. No SO&G. 30 MISIP - 2700. IFP - 200. FFP - 475. 30 MFSIP - 2625. HI - 3600 HO - 3525. Job complete 7:15 p.m. April 10, 1962.

Ran Gamma-Ray Neutron Logs, April 11, 1962.

String No. 1 (Drinkard) Zone - Ran 7447' of 2 3/8" O.D. casing and cemented at 7459'. Plug at 7427'.

String No. 2 (Fusselman) Zone - Ran 7449' of 2 7/8" O.D. casing and cemented at 7459'. Plug at 7427'.

String No. 3 (Siluro - Devonian) Zone - Ran 7093' of 2 7/8" O.D. casing and cemented at 7103'. Plug at 7071'.

String No. 4 (Blinebry) Zone - Ran 6195' of 2 3/8" O.D. casing and cemented at 6205'. Plug at 6174'.

Flushed down strings 1 and 2 with 200 bbls. brine and 100 bbls. fresh water. Pumped 10 bbls. fresh water down strings 3 and 4. Cement down all strings with 962 sx. Incor and 962 Dia mix with 1.5% L.W.L. and 3% Cacl. Top of cement by temperature survey, 1800'. Job complete April 15, 1962.

Ran correlation logs, April 18, 1962.

Perforate string 1 (Drinkard) Zone - 5990' to 5995', 6001' to 6006', 6019' to 6024', 6066' to 6070', 6076' to 6082' with 2 jet shots per foot. Acidize with 1000 gals LST NEA. Ran 1 5/8" DP with Otis opening and closing tools. Open sleeve at 7055'. Pumped in with 1/4 BPM at 700 lbs. Squeeze sleeve with 2 sx neat cement with 1.5% L.W.L. Maximum pressure 700#. Closed sleeve. Reversed out .5 sx. Job complete 1:15 p.m., April 26, 1962.

(Drinkard) Zone Test - On 24 hour potential test ending 2:00 p.m. May 7, 1962, well flowed 55 BO & no BW thru 18/64" choke.

GOR - 1721

Gravity - 36.7

Top of Pay - 5990'

Btm of Pay - 6082'

USGS Date - April 9, 1962

TEXACO Inc. Date - May 7, 1962

Perforate string 2 (Fusselman) Zone - 7137' to 7146' with 2 jet shots per foot. Acidize with 500 gals LST NEA. Squeezed perfs 7137' to 7146' with 10 sx. Incor with 0.5% L.W.L. Maximum pressure 2000 lbs. Job complete April 29, 1962. DOC 6929' to 7099'. Perforate 7142' to 7146' with 1 jet shot per foot. Acidize with 250 gals LST NEA. Perfs 7137' to 7146' took fluid.

(Fusselman) Zone Test - On 23 hour potential test ending 7:00 a.m. May 4, 1962, well flowed 124 BO & no BW thru 22/64" choke.

GOR - TSTM
Gravity - 37.4
Top of Pay - 7137'
Btm of Pay - 7146'
USGS Date - April 9, 1962
TEXACO Inc. Date - May 5, 1962

Perforate string 3 (Siluro - Devonian) Zone - 7038' to 7050' with 2 jet shots per foot. Acidize with 500 gals LST NEA.

(Siluro - Devonian) Zone Test - On 24 hour potential test ending 6:00 a.m. May 10, 1962, well flowed 94 BO & no BW thru 16/64" choke.

GOR - 1007
Gravity - 36.7
Top of Pay - 7038'
Btm of Pay - 7050'
USGS Date - April 9, 1962
TEXACO Inc. Date - May 10, 1962

Perforate string 4 (Blinebry) Zone - 5454' to 5460', 5464' to 5469', 5504' to 5508', 5600' to 5616', with 2 jet shots per foot. Acidize with 1000 gals LST NEA. Frac with 10,000 gals ref oil and 10,000 lbs. sand rate 2.9 BPM.

(Blinebry) Zone Test - On 12 hour potential test ending 8:00 a.m. April 25, 1962, well flowed 81 BO & no BW thru 18/64" choke.

GOR - 7160
Gravity - 36.5
Top of Pay - 5454'
Btm of Pay - 5616'
USGS Date - April 9, 1962
TEXACO Inc. Date - April 25, 1962