

## PROPOSED CASING PROGRAM

"A"

150', 8-5/8" OD, J-55, 8Rd casing. To be cemented with sufficient cement to circulate to surface.

"B"

4200' 5½" OD or 4½" OD, J-55, 8Rd casing. To be cemented with sufficient cement to circulate back to a depth above the salt section.

### CASING TESTS

Production casing string (B) will be tested at 3000 psi for 30 minutes prior to starting completion operations.

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
*MCPQ* EXHIBIT No. 13  
CASE 1309

CASE No. \_\_\_\_\_

EXHIBIT "E"

KEWANEE OIL COMPANY

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
74 C 119 EXHIBIT No. 17  
CASE 1369

WELL HISTORY OF PEARL NO. 21

Location: 2615' from South and 1295' from  
East lines of Section 25, NE/4,  
SE/4, Section 25, 17S, 32E, N.M.  
P.M., Lea County, New Mexico.

Elevation: 4002.6'

Top of Lime: 3810'

Drilling Commenced: June 23, 1948

Completion Date: August 28, 1948

Drilled with rotary to 1272' and with cable  
tools from 1272' to total depth by Marshall  
& Smith Drilling Company.

On July 14, 1948 ran 1265' 7" (thds. off) of  
8-5/8" O.D., 24#, J-55, 8 Rd. Thd., National,  
new Seamless casing with new Larkin, Texas  
Pattern, casing shoe welded on bottom.  
Circulated 4 sacks of Aquagel ahead of cement  
and cemented with 100 sacks of Trinity Common  
cement. Cementing done by Halliburton Oil  
Well Cementing Company.

Let well stand for 72 hours for cement to set.

7-17-48

Drilled out plugs and bailed hole dry, and tested  
for water shut off for 2 hours. Found water to  
be completely shut off. Started drilling ahead.

8- 6-48

Found Red Sand from 3455' to 3500' and got a  
show of oil.

Drilling was continued to 3920' and then began  
preparations for running 7" O.D. casing.

8-13-48

Ran 3920' (thds. off) of 7" O.D., 23#, J-55,  
8 Rd. Thd., National, new Seamless casing  
with new Larkin, Fig. #101, Texas Pattern  
casing shoe on bottom of bottom joint and new  
Larkin, Fig. #401 float collar on top of bottom  
joint, both welded on. Circulated 8 sacks of  
Aquagel ahead of cement and cemented with 200  
sacks of Trinity Common cement. Pumped plug  
to 3869' and circulated to surface. Cementing  
done by Halliburton Oil Well Cementing Company.

Let well stand for 72 hours for cement to set.

8-17-48

Drilled out plug, bailed hole dry and tested  
water shut off for 2 hours. Found water to be  
completely shut off. Started drilling ahead.

8-11-48	3780' to 3790'	Anhydrite and Red Shale.
	3790' to 3810'	Anhydrite and Sand.
	3810' to 3840'	Gray Lime.
8-12-48	3840' to 3885'	Gray Lime.
8-13-48	3885' to 3910'	Gray Lime.
		Steel Line Measurement corrected to 3920'.
8-13-48 to 8-17-48		Ran and cemented 7" O.D. casing, drilled plugs and tested water shut off.
8-17-48	3920' to 3930'	Light Brown Sandy Lime. Show of oil.
8-18-48	3930' to 3940'	Light Brown Lime.
	3940' to 3945'	Gray Sandy Lime, Light Tan Stain.
	3945' to 3953'	Gray Sandy Lime, Light Tan Stain.
	3953' to 3961'	Blue Lime.
8-19-48	3961' to 3972'	Gray Lime, Little Tan Stain.
	3972' to 3978'	Gray Lime, Little Tan Stain.
	3978' to 3988'	White and Gray Lime, Little Tan Stain.
	3988' to 3995'	White and Gray Lime, Little Tan Stain.
8-20-48	3995' to 4005'	White and Gray Lime, Little Tan Stain.
	4005' to 4022'	Gray Sandy Lime, Little Tan Stain.
	4022' to 4035'	Gray and White Lime.
8-21-48	4035' to 4048'	White Lime.
	4048' to 4065'	Gray and White Lime.
	4065' to 4070'	White Sandy Lime.
8-22-48	4070' to 4080'	White Lime.
	4080' to 4087'	White Lime.
	4087' to 4097'	White Lime.
8-23-48	4097' to 4104'	White Lime.
	4104' to 4120'	White Sandy Lime, Faint Stain.
	4120' to 4125'	Dolomite, Light Tan Stain.
8-24-48 to 8-25-48		Shut down while repairing bull wheel and machine.
8-26-48	4125' to 4135'	Dolomite, Very Light Tan Stain.
		Steel Line Measurement correction to 4133'.
	4133' to 4142'	Light Sand.
8-27-48	4142' to 4146'	Light Sand, Very Little Tan Stain.
	4146' to 4154'	Light Sand, Little Tan Stain.
		Swab Test @ 4152' — 8.05 bbls. in 24 hours.
	4154' to 4165'	Light Sand, show of gas & oil. 400' OIH.
	4165' to 4182'	Light Sand, more oil show. 800' OIH.

8-28-48	4182' to 4188'	Swab Test @ 4188' — 16.25 bbls. in 24 hrs. Light Sandy Lime, Little Tan Stain.
	4188' to 4190'	Sandy Lime, Little Tan Stain.
	4190'	Total Depth. Finished drilling August 28, 1948.
		After reaching total depth this well was tested for water. No water showed up.
		Started swabbing and swabbed for 24 hours. 1st 8 hrs. — Swabbed 12.65 BO. 2nd 8 hrs. — Swabbed 6.90 BO. 3rd 8 hrs. — Swabbed 8.05 BO.
8-29-48		While loading hole with oil, ran bailer in hole and bailer stuck 5' off bottom. Fished for bailer until August 30, 1948, at which time it was fished out of hole and hole was cleaned up for shot.
8-31-48		Ran 270 quarts of liquid Nitroglycerin in $4\frac{1}{2}$ " shells from 4190' to 4104'. Tamped shot with pea gravel and 8 sacks of Calseal. Top of Calseal 4040'. Shot went off on time at 8:25 A.M. on September 1, 1948.
9- 1-48		After shot went off ran steel line measurement which showed top of Calseal at 4040'. Then ran a $9\frac{1}{2}$ ' gravel filled shell and set from 4040' to 4030.5'. Then ran 90 quarts of liquid Nitro- glycerin in $4\frac{1}{2}$ " shells from 4030.5' to 4004.5'. Tamped shot with pea gravel and 6 sacks of calseal. Top of calseal 3946'. Shot went off on time at 8:30 A.M. on September 2, 1948 and did not come out.
9- 6-48		Moved in Beckman, Inc. reverse circulation unit, rigged up, and started cleaning out. Went in hole and found top of calseal at 3951'. Cleaned out until September 12, 1948, at which time depth of 4190' was reached.
10-1-48		Took a Gas-Oil Ratio Test and well made 64.80 barrels of oil in 5 hours and 49120 cubic feet of gas for a ratio of 758. Gravity of oil: 36.0.