

EMPIRE OIL AND REFG.
Palmer No. 1

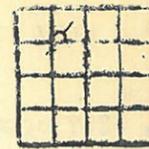
SEC. 17 T. 34 R. 3E.
SW NE NW
1139.3'W 966.7'S of N $\frac{1}{4}$

Total Depth. 3390
Comm. 5-20-37 Comp. 7-25-37
Shot or Treated.
Contractor, Loman and Elliott
Issued. 8-21-37

County Cowley.

CASING.

20" 100'
15 $\frac{1}{2}$ " 669'
12 $\frac{1}{2}$ " 1490'
10" 1754 UR 2007'
8 $\frac{1}{2}$ " 2190 UR 2819
7" 3306' Pulled 3212'2"
left in 97'10"



Elevation. 1116

Production. Dry.

Figures Indicate Bottom of Formations.

cellar	12	shale and shells	1010	5 to 10 Mil gas 1945-50	
clay yellow	45	limo sdy	1020	shale	1965
shale blue	80	shale blue	1065	sand	1985
slate blue	95	limo	1070	shale red	1996
shale	135	shale	1100	limo grey	2000
shale white	170	shale light	1130	lime	2007
lime broken	185	shale dark	1145	shale grey	2020
shale grey	210	lime	1170	lime	2030
lime	215	shale grey	1175	slate blue caving	2045
shale light	240	lime	1180	shale	2095
lime	245	shale blue	1200	shale grey	2160
shale	280	lime	1205	lime	2180
shale light	290	shale	1225	shale sdy	2185
shale dark	300	lime	1240	sand	2215
lime broken	355	slate	1250	shale	2220
slate white	360	lime	1265	limo sdy	2228
red rock	370	shale dark	1275	sand	2245
lime	390	shale grey	1285	lime	2265
shale blue	410	lime	1295	shale	2270
red rock	415	shale grey	1315	lime and sand	2285
lime	460	shale	1325	water sand	2290
red rock	465	lime	1395	limo sdy	2310
lime	490	shale	1420	water sand	2325
shale blue	495	lime sdy	1440	sand	2330
lime	525	shale light	1450	shale	2335
shale white	530	shale sdy	1460	lime	2340
lime	540	shale blk	1470	lime sdy	2355
slate white	545	slate blk	1490	shale sdy	2375
lime	575	lime	1492	shale blue	2390
shale and shells	585	lime broken	1520	shale dark	2410
red rock	610	lime	1530	lime	2420
lime	620	shale blue	1540	limo sdy	2425
red rock	650	lime	1575	lime	2440
lime	695	shale light	1580	shale dark	2450
shale	700	lime	1590	shale	2470
lime	705	shale light	1595	shale dark	2500
slate light	715	lime	1660	shale grey	2550
lime	775	slate	1665	shale dark	2615
shale	780	lime	1670	sand	2780
lime	800	slate	1675	shale	2810
shale	805	lime	1685	lime	2840
shale light	810	shale sdy	1695	shale blk	2845
lime	815	sand	1715	lime	2940
shale dark	820	shale blk	1740	shale	2955
lime	825	shale blue	1750	limo sdy	2990
shale blk	840	shale	1755	shale sdy	3012
shale grey	850	lime	1760	lime grey	3035
lime	855	lime brown	1780	lime	3055
shale grey	875	slate blue	1783	shale	3060
lime	885	lime sdy	1795	lime	3075
shale	920	slate dark	1800	lime grey hard	3093
lime	925	slate grey	1860	slate	3098
shale	935	lime	1865	lime	3120
shale light	950	shale	1900	shale	3125
shale dark	980	red rock	1920	lime	3130
lime	985	sand gas	1928	sdymimo	3145
shale dark	990	1 to 3 Mil gas 1920-28			
shale grey	1000	lime	1962	OVER	

Empire Oil and Refg.
 Palmer No. 1. 17-34-3E.
 Cowley County, Kansas.

shale sdy	3170
shale	3241
red rock	3248
shale	3260
sdv shale	3275
red shale	3280
shale red & grey	3288
sdv shale	3291
shaley sand	3297
SIM corr. 3297 equals	3306
sdv shale	3327
broken sand	3335
shaley sand and sdy	
shale	3344
chert	3375
sand	3387
sand white	3390

3306
 1116

 2190

Total Depth.

WATER RECORD.

- 2 BW 40-45
- 1 1/2 BW 380
- 2 BWPB 1035
- 1 B. 1290
- 3 B. 1420-40
- 5 BWPB carrying at 1440
- HFW 1700
- HFW 2185-90
- HFW 2620-35
- 2 BW 2965-70
- HFW 3380!