

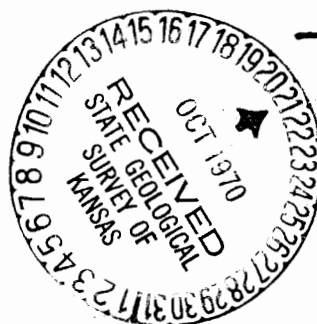
OCT 17 1970

DRILLER'S LOG

19-34-13W
C SW NW

Imperial Oil Company
780 Fourth National Building
Wichita, Kansas 67202

Graves No. 1
C SW NW Sec. 19-34S-13W
Barber County, Kansas



Total Depth: 4767 ft.

Elevation 1627 K.B.

Commenced: 5-21-70

Contractor: Imperial Oil Co., Rig #2

Completed: 6-4-70
Producer COIPF 3,880,000 CFBPD
Miss.

Casing Record: Set 8 5/8" surface casing at 350' with 285 sacks of cement. Set 5 1/2" production casing at 4767' with 125 sacks cement.

Figures indicate bottom of formations:

Sample Tops:

Herrington	2065	Herrington	2075	(-448)
Winfield	2155	Winfield	2155	(-528)
Towanda	2210	Towanda	2220	(-593)
Florence	2303	Florence	2315	(-688)
Wreford	2415	Wreford	2430	(-803)
Cottonwood	2598	Cottonwood	2600	(-973)
Neva	2683	Neva	2680	(-1053)
Foraker	2783	Foraker	2785	(-1158)
Tarkio	3198	Tarkio	3205	(-1578)
Howard	3302	Howard	3310	(-1683)
Elgin Sand	3730	Elgin Sand	3734	(-2107)
Heebner	3937	Heebner	3941	(-2314)
Toronto	3964	Toronto	3973	(-2346)
Douglas Shale	4024	Douglas Shale	4029	(-2402)
Lansing	4124	Lansing	4122	(-2495)
Miss. Dolomite	4689	Miss. Dolomite	4695	(-3068)
Log Total Depth	4761	<u>Rotary Total Depth</u>	4767	(-3140)

We hereby certify this to be a correct and accurate log of the above described well, as shown on the daily drilling reports.

Log Tops
Elgin 3730
Heebner 3937
Toronto 3964
Douglas Sh. 4024
L.C. 4124
Miss. 4689

IMPERIAL OIL COMPANY

By: Charley V. Shank

Subscribed and sworn to before me this 30th day of June, 1970.

My Commission Expires:
March 3, 1974

Mary J. Brown
Mary J. Brown, Notary Public