CITIES SERVICE RESEARCH AND DEVELOPMENT COMPANY

CORE ANALYSIS REPORT

Company: Cities Service Oil Company (Del.)

Well: Risley #9

Location: 990' N - 1650' W. Center Sec. 16-29 -4E., Butler County, Kansas

Footage Cored: Core #1 1833'-1873' Recovered 38.15'

Samples: 19 saturation, permeability and porosity.

Date Received: 10-20-58 Date Reported: 10-23-58

Summary of Data

Est. Represented Footage	Feet	Perm. md.	Por. %	Weighted Averages Saturation % Oil	Water
1834'-70'	36'	29.9	8.4	10	60

Core Description

Footage	Description	Min./Ft.
1833'-37'	Ls. lt. gry-tan, fine xn low por. N.S.O.	
1837'-39'	Ls. gry-tan, fine-med. xn. med. por. pos. slt. odor (S. S. dead oil)	
1839'-41.5'	Ls. gry-tan, med-coarse xn., med-good por., scat. Vuggs., foss, fair odor, (F. S. dead oil)	
1841.5'-46'	Ls. tan, med to coarse Xn., med-good por. scat Vuggs, foss odor, S. F. O. (could have a little water)	
1846'-50'	Ls. tan, med. coarse Xn. med-good por., scat. Vuggs, good odor. G. S. F. O.	
1850'-53'	Ls. gry, tan, fin-med. Xn. low por, silty, V. S. S. O.	
1853'-64'	Ls. tan, med-coarse Xn, good por, granular, bleeding core, good odor, G. S. F. O.	
1864'-68'	Ls. gry-tan, med-coarse X , med-good por., silty, fair odor, (poss. water) Fair show of free oil.	
1868'-71.15	Ls. gry.-tan, fine med. Xn. fair por. fractured, very shaly, no odor N. S. O.	
1871.15'-73'	Lost Core-est. as Ls. shaley as above or blk. shale N. S. O.	

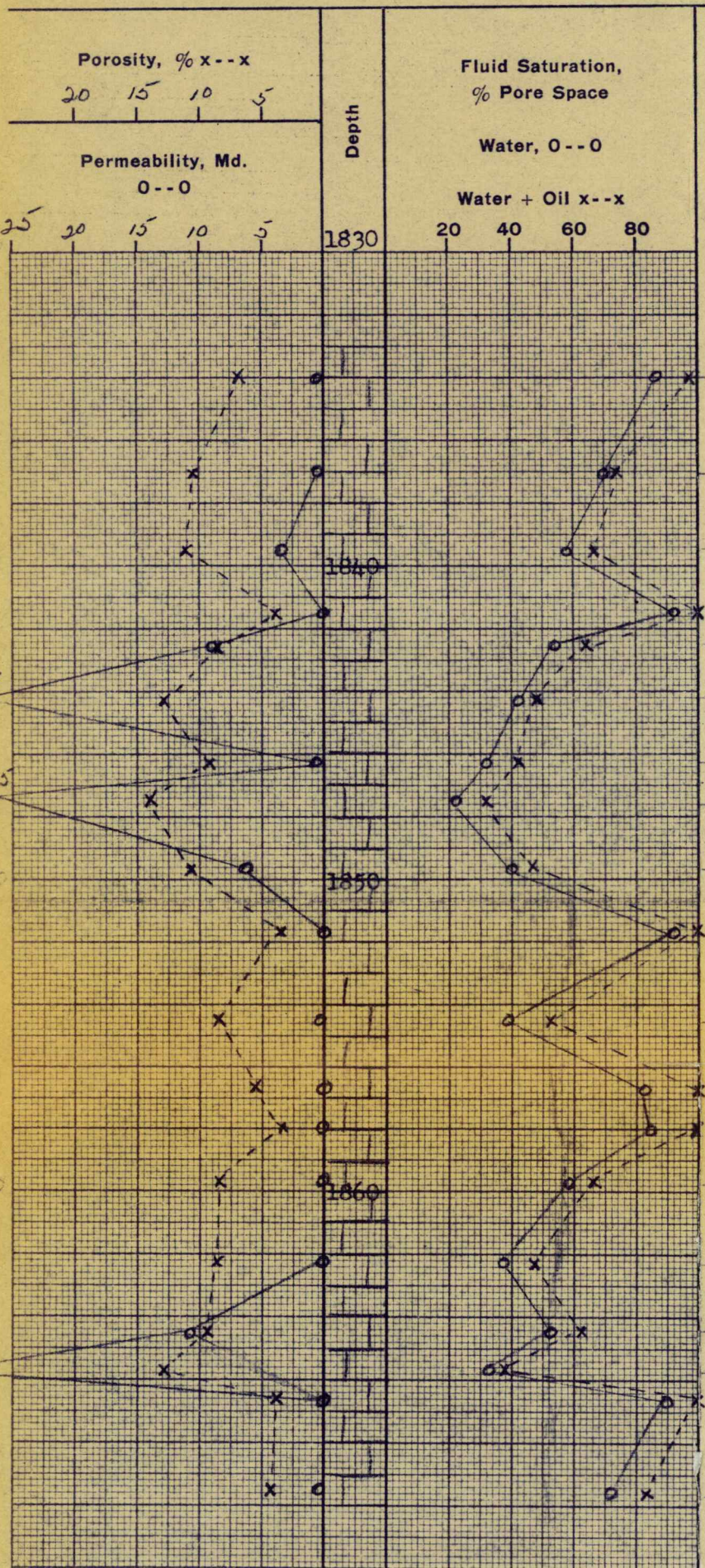
Analysis by: R. Perkins and J. Bivins Report by: J. Bivins

CITIES SERVICE RESEARCH AND DEVELOPMENT COMPANY

Petroleum Production Research Laboratory
Tulsa, Oklahoma

Risley #9
Butler County, Kansas

Sandstone | Shale | Dolomite | Limestone



TABULAR DATA

Sample No.	Depth Ft.	Perm. Md.	Por. %	Saturation % Oil	Saturation % Water
S-1	1834.0	0.08	7:0	12	86
S-2	37.0	0.20	10.2	4	70
S-3	39.5	3.73	11.2	8	59
S-4	1841.5	0.04	3.8	7	93
S-5	42.5	9.1	8.9	9	55
S-6	44.2	74	13.0	6	42
S-7	46.2	0.35	9.7	9	32
S-8	47.5	32.5	14.7	11	21
S-9	49.7	6.4	11.2	7	40
S-10	1851.8	0.03	3.9	8	92
S-11	54.5	0.44	8.4	13	39
S-12	56.7	0.08	5.9	17	83
S-13	58.0	0.02	3.5	16	84
S-14	59.8	0.28	8.4	7	59
S-15	1862.2	0.17	8.1	10	38
S-16	64.5	11.1	9.8	10	52
S-17	65.8	430	12.7	6	32
S-18	66.8	0.04	4.2	10	90
S-19	69.5	0.19	4.8	11	71