

OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS - PHONE HE1-2650

14-26-20E

November 29, 1968

Smith Engineering, Inc.
15 South Forest
Chanute, Kansas 66720

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Blaine Lease, Well No. 4-A, Neosho County, Kansas, and submitted to our laboratory on November 25, 1968.

This core is from a virgin territory and was sampled, sealed in plastic bags, and submitted to our laboratory by a representative of Oilfield Research Laboratories.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:dp

12 c. - Chanute, Kansas

Blaine 4-A

-LOG-

Company Smith Engineering, Inc. Lease Blaine Well No. 4-A

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
475.0 - 476.6	Gray sandy shale.
476.6 - 480.2	Brown fine grained micaceous slightly shaly sandstone.
480.2 - 480.7	Brown laminated shaly sandstone.
480.7 - 482.5	Dark brown fine grained micaceous sandstone.
482.5 - 485.5	Dark brown fine grained micaceous slightly shaly sandstone.
485.5 - 487.1	Dark carbonaceous sandstone.
487.1 - 489.0	Gray sandy shale.

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Smith Engineering, Inc. Lease Blaine Well No. 4-A

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	477.1	18.4	19	47	66	271	14.	1.0	271	14.00	
2	478.1	15.5	42	51	93	505	1.0	1.0	505	1.00	
3	479.1	15.6	34	50	84	412	15.	1.0	412	15.00	
4	480.1	16.7	34	60	94	441	45.	0.6	265	27.00	
5	481.1	21.3	47	43	90	777	22.	0.9	697	19.80	
6	482.1	22.2	35	39	74	603	45.	0.9	543	40.50	
7	483.1	18.8	43	43	86	627	36.	1.1	674	39.60	
8	484.1	17.4	45	45	90	608	58.	1.0	608	58.00	
9	485.1	17.8	40	42	82	553	37.	0.9	498	33.30	
10	486.1	18.2	49	38	87	692	22.	1.6	1107	35.20	

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SUMMARY OF PERMEABILITY & SATURATION TESTS

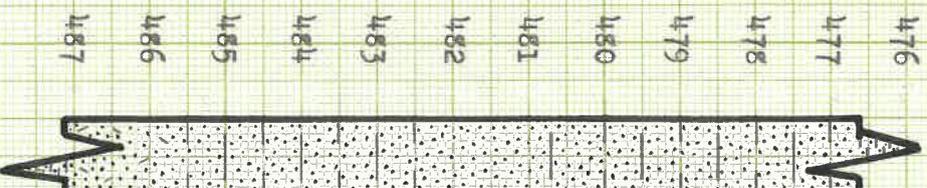
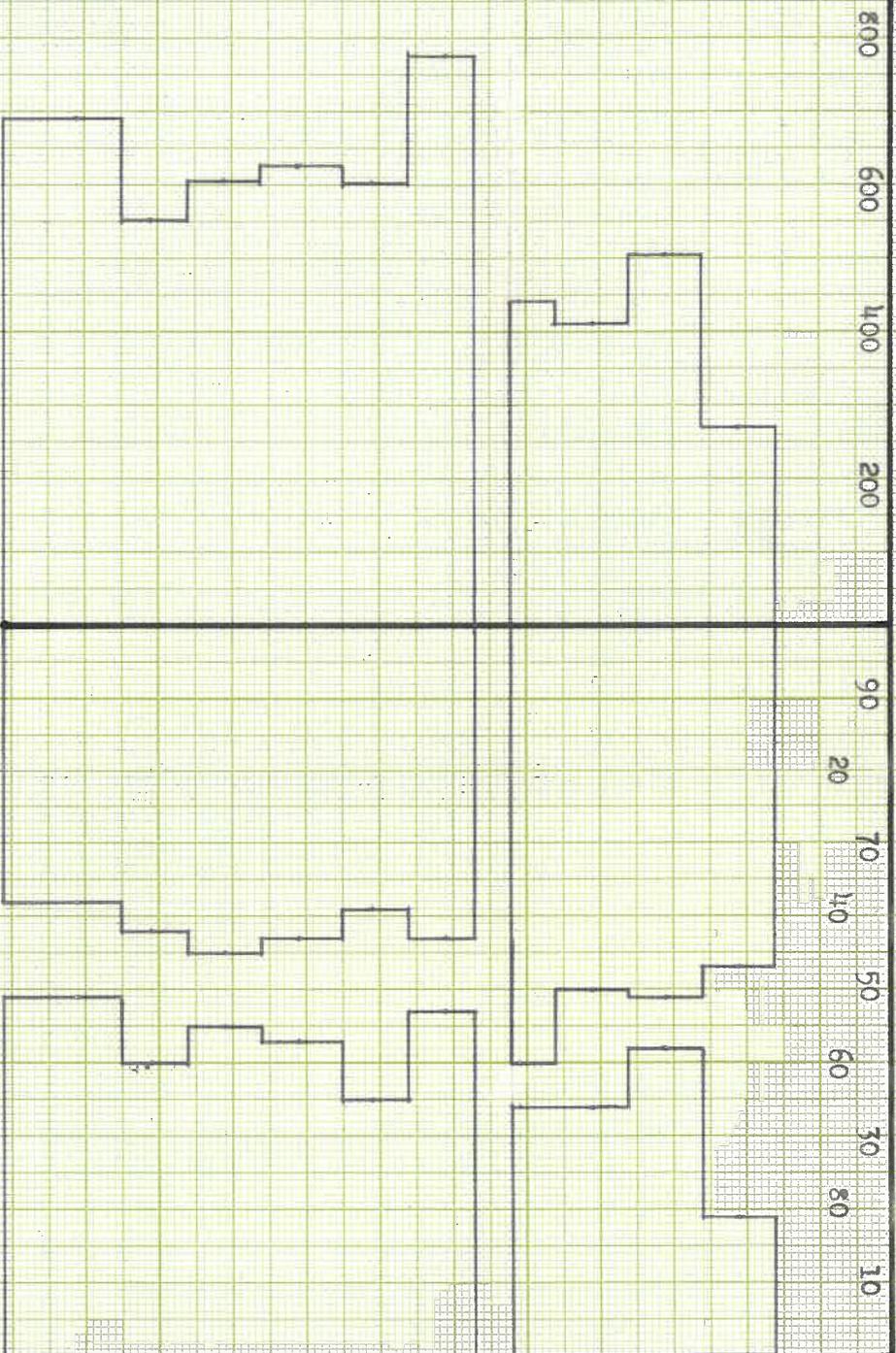
TABLE III

Company	Smith Engineering, Inc.	Lease	Blaine	Well No.	4-A
Depth Interval, Feet	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Total Oil Content Bbls./Acre
476.6 - 478.6	476.6 - 478.6	2.0	7.5	15.00	776
478.6 - 487.1	478.6 - 487.1	8.0	33.6	268.40	4,804
476.6 - 487.1	476.6 - 487.1	10.0	28.3	283.40	5,580
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.
476.6 - 478.6	2.0	16.9	30.5	49.0	388
478.6 - 487.1	8.0	18.5	41.9	43.8	476
476.6 - 487.1	10.0	18.2	39.6	44.9	558

OIL CONTENT,
BBL./A. FT.

WATER SAT.,
PERCENT

OIL SAT.,
PERCENT



476

477

478

479

480

481

482

483

484

485

486

487

KEY:

SANDSTONE

SHALY SANDSTONE

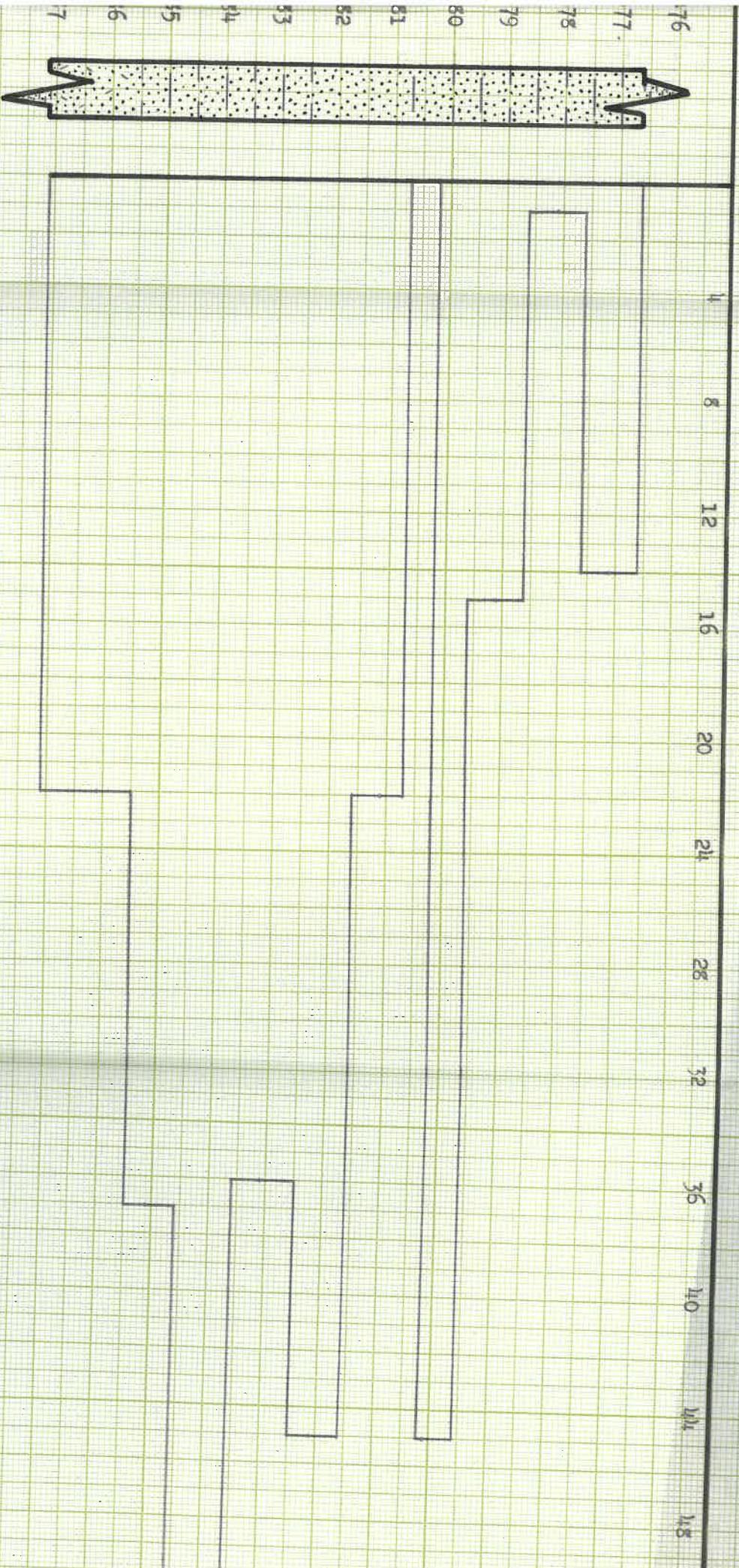
BLAINE LEASE

SMITH ENGINEERS

WASHO COUNTY, KAN

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT
476.6 - 478.6	2.0	16.9	30.5
478.6 - 487.1	8.0	18.5	21.9
476.6 - 487.1	10.0	18.2	39.6

AIR PERMEABILITY, IN MILLIDARCYs



CARBONACEOUS SANDSTONE
SANDY SHALE

ENGINEERING INC.

WENSHO COUNTY, KANSAS

WELL NO. 4-A

AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVG. OIL CONTENT BBLS./A. FT.	TOTAL OIL CONTENT BBLS./ACRE	AVG. AIR PERMEABILITY MILLIDARCYs
16.9	30.5	49.0	388	776	7.5
18.5	41.9	43.8	476	4,804	33.6
18.2	39.6	44.9	558	5,580	28.3

OILFIELD RESEARCH LABORATORIES
CHANDLER, KANSAS
NOVEMBER, 1966.