

OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

November 24, 1982

Troon II
Falcon Oil Company
P. O. Box 707
Chanute, Kansas 66720

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Carter Lease, Well No. 2-12, located in Wilson County, Kansas and submitted to our laboratory on November 18, 1982.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/rmc

5 c to Chanute, Kansas

Advised to change - 2-9-83
as below

11/82 Carter #2-12

s/b Fairfield Town II

12/82 Gravity + Dis

s/b Fairfield Town III

These reports were
called Falcon Oil +
are not the same
company. Must be
kept separate.

Oilfield Research Laboratories
GENERAL INFORMATION & SUMMARY

Company Falcon ~~Oil Company~~ ^{Troon II} Lease Carter Well No. 2-12
 Location _____
 Section 12 Twp. 29S Rge. 16E County Wilson State Kansas

Elevation, Feet
 Name of Sand Cattleman
 Top of Core 760.0
 Bottom of Core 800.3
 Top of Sand 760.0
 Bottom of Sand 799.6
 Total Feet of Permeable Sand 19.5

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 4	5.5	5.5
4 - 8	4.4	9.9
8 - 16	5.6	15.5
22 - 37	4.0	19.5

Average Permeability Millidarcys 10.7
 Average Percent Porosity 14.7
 Average Percent Oil Saturation 20.9
 Average Percent Water Saturation 61.3
 Average Oil Content, Bbls./A. Ft. 251.
 Total Oil Content, Bbls./Acre 7,167.

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-2-

The core was sampled and the samples sealed in plastic bags by a representative of the client. Salt water mud was used as a drilling fluid. The core was reported to be from a non-virgin area.

At the request of the client, sample numbers 11 through 18 were subjected to flooding susceptibility tests.

FORMATION CORED

The detailed log of the formation cored is as follows:

<u>Depth Interval, Feet</u>	<u>Description</u>
760.0 - 761.4	Grayish brown very shaly sandstone.
761.4 - 768.0	Gray shale.
768.0 - 768.2	Brown shaly sandstone.
768.2 - 769.1	Gray slightly sandy shale.
769.1 - 769.5	Grayish brown very shaly sandstone.
769.5 - 770.4	Gray slightly sandy shale.
770.4 - 770.9	Gray very shaly sandstone.
770.9 - 772.0	Light brown slightly shaly sandstone.
772.0 - 773.4	Grayish light brown shaly sandstone.
773.4 - 775.0	Light brown slightly shaly sandstone.
775.0 - 777.4	Gray shale.
777.4 - 778.0	Gray very shaly sandstone.
778.0 - 780.0	Grayish brown very shaly sandstone with scattered mica partings.
780.0 - 784.0	Brown sandstone with scattered fine gray shale partings.

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-3-

<u>Depth Interval, Feet</u>	<u>Description</u>
784.0 - 788.0	Brown sandstone.
788.0 - 788.7	Grayish brown very shaly sandstone.
788.7 - 790.0	Brown shaly sandstone.
790.0 - 792.2	Grayish brown very shaly sandstone.
792.2 - 793.0	Grayish brown shaly sandstone.
793.0 - 794.4	Grayish brown very shaly sandstone.
794.4 - 796.5	Gray very shaly sandstone.
796.5 - 797.1	Light brown sandstone.
797.1 - 799.0	Grayish light brown very shaly sandstone.
799.0 - 799.6	Grayish brown shaly sandstone.
799.6 - 800.3	Gray sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Falcon Oil Company ^{Tron II} Lease Carter Well No. 2-12

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	760.5	13.4	9	64	73	94	0.51	1.4	1.4	132	0.71
2	769.4	9.2	16	80	96	114	Imp.	0.4	1.8	46	0.00
3	770.5	7.9	11	82	93	67	Imp.	0.5	2.3	34	0.00
4	771.3	14.5	20	55	75	225	7.5	1.1	3.4	248	8.25
5	772.6	16.1	12	56	68	150	4.9	1.4	4.8	210	6.86
6	773.5	15.4	23	50	73	275	7.5	0.6	5.4	165	4.50
7	774.5	14.6	16	53	69	181	8.5	1.0	6.4	181	8.50
8	777.5	14.7	2	69	71	23	Imp.	0.6	7.0	14	0.00
9	778.6	15.2	39	48	87	460	0.95	1.0	8.0	460	0.95
10	779.7	11.0	23	71	94	196	Imp.	1.0	9.0	196	0.00
11	780.6	17.6	22	55	77	300	11.	1.0	10.0	300	11.00
12	781.6	15.1	37	50	87	433	13.	1.0	11.0	433	13.00
13	782.5	16.4	25	59	84	318	9.6	1.0	12.0	318	9.60
14	783.5	16.8	39	42	81	508	10.	1.0	13.0	508	10.00
15	784.5	17.4	31	48	79	419	30.	1.0	14.0	419	30.00
16	785.6	23.1	36	40	76	645	22.	1.0	15.0	645	22.00
17	786.5	18.6	38	45	83	548	30.	1.0	16.0	548	30.00
18	787.5	19.4	29	46	75	437	36.	1.0	17.0	437	36.00
19	788.4	13.4	3	69	72	31	0.59	0.7	17.7	22	0.41
20	789.5	16.8	27	53	80	352	4.0	1.3	19.0	458	5.20
21	790.5	11.0	29	64	93	247	Imp.	1.0	20.0	247	0.00
22	791.2	13.0	12	71	83	121	Imp.	1.2	21.2	145	0.00
23	792.6	16.4	28	53	81	356	3.0	0.8	22.0	285	2.40
24	793.3	14.4	19	69	88	212	Imp.	1.4	23.4	297	0.00
25	794.5	14.3	3	93	96	33	Imp.	1.1	24.5	36	0.00
26	795.6	9.0	19	74	93	103	Imp.	1.0	25.5	103	0.00
27	796.6	17.4	9	67	76	122	13.	0.6	26.1	73	7.80
28	797.5	6.7	13	85	98	68	Imp.	0.9	27.0	61	0.00
29	798.5	11.9	4	84	88	37	0.45	1.0	28.0	37	0.45
30	799.5	14.2	17	69	86	182	1.8	0.6	28.6	109	1.08

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Falcon ^{Troon II} Oil Company Lease Carter Well No. 2-12

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
760.0 - 780.0	6.5	4.6	29.77
780.0 - 788.0	8.0	20.2	161.60
788.0 - 799.6	5.0	3.5	17.34
760.0 - 799.6	19.5	10.7	208.71

Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
760.0 - 780.0	9.0	13.8	17.4	60.5	187	1,686
780.0 - 788.0	8.0	18.1	32.1	48.1	451	3,608
788.0 - 799.6	11.6	13.2	15.8	71.0	161	1,873
760.0 - 799.6	28.6	14.7	20.9	61.3	251	7,167

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company Falcon Oil Company ^{Troon II} Lease Carter Well No. 2-12

Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation			Volume of Water Recovered cc*	Effective Permeability Millidarcys**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water	Bbls./A. Ft.			
11	780.6	17.1	23	305	0	0	23	66	305	6	0.22	50
12	781.6	15.6	36	436	0	0	36	51	436	0	Imp.	-
13	782.5	16.6	25	322	0	0	25	64	322	18	0.30	35
14	783.5	17.3	38	510	0	0	38	43	510	0	Imp.	-
15	784.5	17.9	30	417	0	0	30	57	417	34	0.64	30
16	785.6	23.0	36	642	4	71	32	62	571	40	0.64	30
17	786.5	18.6	38	548	5	72	33	57	476	32	0.60	40
18	787.5	19.9	28	432	0	0	28	47	432	18	0.33	40

Notes: cc—cubic centimeter.

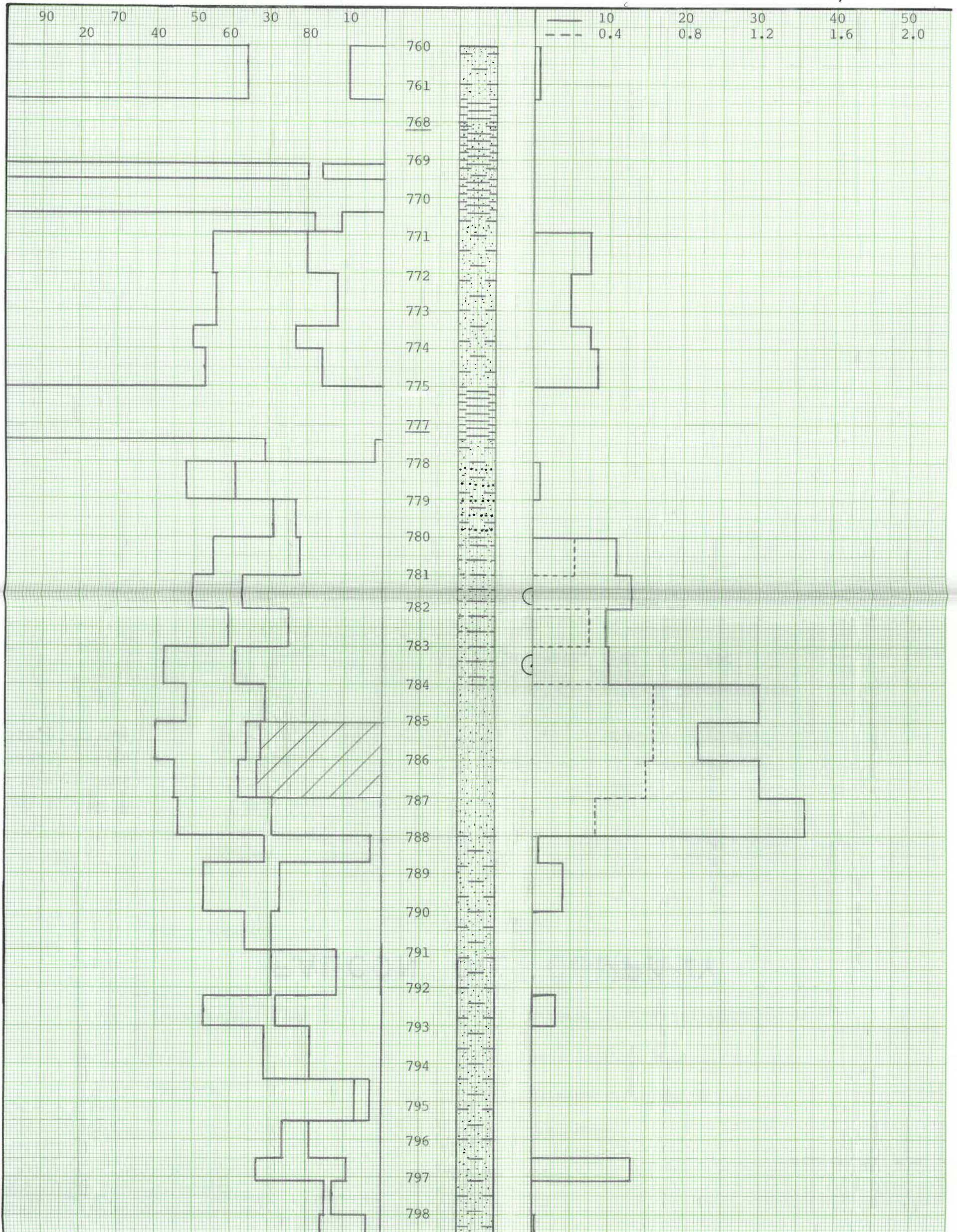
*—Volume of water recovered at the time of maximum oil recovery.

**—Determined by passing water through sample which still contains residual oil.

WATER SAT., PERCENT

OIL SAT., PERCENT

PERMEABILITY, IN MILLIDARCYS
EFFECTIVE PERMEABILITY TO WATER, IN MILLIDARCYS



799

800

KEY:



SANDSTONE



SHALE



IMPERMEABLE TO WATER



SANDY SHALE



SANDSTONE WITH SHALE PARTINGS



SHALY SANDSTONE WITH MICA PARTINGS



FLOODPOT RESIDUAL OIL SATURATION

FALCON OIL COMPANY

CARTER LEASE

WILSON COUNTY, KANSAS

WELL NO. 2-12

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYs	CALCULATED OIL RECOVERY BBLs. / ACRE
760.0 - 780.0	9.0	13.8	17.4	60.5	4.6	
780.0 - 788.0	8.0	18.1	32.1	48.1	20.2	
788.0 - 799.6	11.6	13.2	15.8	71.0	3.5	
760.0 - 799.6	28.6	14.7	20.9	61.3	10.7	-

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 CHANUTE, KANSAS
 NOVEMBER, 1982 PDC

701