OILFIELD RESEARCH LABORATORIES
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February 1, 1980

James E. Russell Petroleum, Inc.
P.O. Box 2618
Abilene, Texas 79604

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the B. Bain-Tract 1 Lease, Well No. 6, Anderson County, Kansas, and submitted to our laboratory on January 11, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/tem

3 c to Abilene, Texas
2 c to Chanute, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company James E. Russell Petroleum, Inc. Lease B. Bain-Tract 1 Well No. 6

Location 660' EWL & 1540' SNL $E\frac{1}{2}$ $SE\frac{1}{4}$

Section 10 Twp. 23S Rge. 19E County Anderson State Kansas

Elevation, Feet Datum: Mean Sea Level (Ground Level)	1074.2
Name of Sand	Squirrel
Top of Core	735.0
Bottom of Core	775.6
Top of Sand	735.3
Bottom of Sand	763.7
Total Feet of Permeable Sand	21.2
Total Feet of Floodable Sand	0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	3.2	3.2
1 - 5	12.3	15.5
5 - 10	5.1	20.6
10 - 15	0.6	21.2

Average Permeability Millidarcys	3.2
Average Percent Porosity	16.2
Average Percent Oil Saturation	28.1
Average Percent Water Saturation	44.6
Average Oil Content, Bbls./A. Ft.	346.
Total Oil Content, Bbls./Acre	8,030.
Average Percent Oil Recovery by Laboratory Flooding Tests	0
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	0
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	0
Total Calculated Oil Recovery, Bbls./Acre	0

The core was sampled by a representative of Oilfield Research Laboratories. Fresh water mud was used as a drilling fluid. The core was from a semi-virgin area.

Inasmuch as the core did not respond to floodpot testing, no calculated recovery is given. However, an estimate of primary reserves is presented.

FORMATION CORED

The detailed log of the formation cored is as follows:

Depth Interval, Feet	Description
735.0 - 735.3	Shale, gray.
735.3 - 735.6	Sandstone, grayish, very shaly, first oil show.
735.6 - 736.3	Shale, gray, sandy.
736.3 - 736.7	Sandstone, grayish, light brown, very shaly.
736.7 - 737.2	Shale, gray, sandy, with fine sandstone partings.
737.2 - 739.0	Sandstone, light brown, very shaly.
739.0 - 740.0	Sandstone, light brown, shaly.
740.0 - 742.2	Sandstone, light brown, very shaly.
742.2 - 747.7	Sandstone, light brown, shaly.
747.7 - 748.7	Sandstone, light brown, very shaly.
748.7 - 751.0	Shale, gray, sandy.
751.0 - 751.5	Sandstone, light brown, very shaly.
751.5 - 752.2	Shale, gray, sandy.
752.2 - 757.1	Sandstone, brown, shaly.
757.1 - 757.3	Shale, gray.
757.3 - 757.9	Sandstone, light brown.

Depth Interval, Feet	Description
757.9 - 759.6	Sandstone, light brown, shaly.
759.6 - 760.1	Shale, gray, sandy.
760.1 - 761.0	Sandstone and shale, brown and gray, laminated.
761.0 - 762.0	Sandstone, brown, very shaly.
762.0 - 762.3	Shale, gray, sandy.
762.3 - 763.7	Sandstone, brown, very shaly.
763.7 - 774.8	Shale, gray, sandy.
774.8 - 775.6	Coal.

PRIMARY RESERVES ESTIMATE

Average porosity for pay sand (747.7 - 763.7)	16.9
Net pay sand thickness	10.3
Original formation volume factor, estimated	1.05
Estimated primary reserves as a percent of porosity	4.0
Estimated primary reserves, barrels per acre foot	50.
Estimated primary reserves, barrels per acre	515.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company James E. Russell Petroleum, Inc. Lease B. Bain-Tract 1 Well No. 6

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	735.5	11.2	6	83	89	52	Imp.	0.3	0.3	16	0.00
2	736.5	15.1	17	52	69	199	2.6	0.4	0.7	80	1.04
3	737.5	17.9	15	47	62	208	3.1	0.8	1.5	166	2.48
4	738.5	14.0	18	67	85	196	Imp.	1.0	2.5	196	0.00
5	739.5	16.2	7	48	55	88	6.0	1.0	3.5	88	6.00
6	740.5	15.5	14	54	68	168	0.40	1.0	4.5	168	0.40
7	741.5	20.2	15	36	51	235	0.89	1.2	5.7	282	1.07
8	742.5	13.8	24	59	83	257	1.9	0.8	6.5	206	1.52
9	743.5	15.8	22	46	68	270	1.5	1.0	7.5	270	1.50
10	744.5	16.1	20	47	67	250	1.2	1.0	8.5	250	1.20
11	745.5	16.2	24	41	65	302	1.1	1.0	9.5	302	1.10
12	746.5	17.9	28	36	64	389	3.4	1.0	10.5	389	3.40
13	747.5	13.2	24	63	87	246	2.0	0.7	11.2	172	1.40
14	748.6	13.2	32	59	91	328	0.38	1.0	12.2	328	0.38
15	751.3	16.8	31	36	67	404	2.4	0.5	12.7	202	1.20
16	752.5	17.5	30	38	68	407	4.6	0.8	13.5	326	3.68
17	753.5	14.5	46	32	78	518	4.3	1.0	14.5	518	4.30
18	754.5	17.4	27	39	66	365	6.6	1.0	15.5	365	6.60
19	755.5	15.6	44	42	86	533	6.6	1.1	16.6	586	7.26
20	756.5	16.1	39	38	77	487	5.9	1.0	17.6	487	5.90
21	757.5	19.4	37	31	68	557	14.	0.6	18.2	334	8.40
22	758.5	16.9	40	33	73	524	5.2	1.0	19.2	524	5.20
23	759.5	10.2	31	61	92	245	Imp.	0.7	19.9	172	0.00
24	760.5	16.3	39	37	76	493	3.1	0.9	20.8	444	2.79
25	761.5	16.7	34	37	71	441	2.0	1.0	21.8	441	2.00
26	762.5	15.7	42	42	84	512	1.4	1.0	22.8	512	1.40
27	763.5	15.8	42	33	75	515	4.2	0.4	23.2	206	1.68

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company James E. Russell Petroleum, Incorporated Lease B.Bain-Tract 1 Well No. 6

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
735.3 - 747.7	9.9	2.1	21.11
747.7 - 763.7	11.3	4.1	46.49
735.3 - 763.7	21.2	3.2	67.60

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
735.3 - 747.7	11.2	16.1	18.5	49.2	231	2,585
747.7 - 763.7	12.0	16.2	37.0	40.2	454	5,445
735.3 - 763.7	23.2	16.2	28.1	44.6	346	8,030

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company James E. Russell Petroleum, Inc. Lease B.Bain-Tract 1 Well No. 6

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.			
1	735.5	11.4	6	53	0	0	6	84	53	0	Imp.	-
2	736.5	15.0	17	198	0	0	17	54	198	0	Imp.	-
3	737.5	17.6	15	205	0	0	15	74	205	24	0.22	50
4	738.5	14.4	18	201	0	0	18	65	201	12	0.15	50
5	739.5	16.0	7	87	0	0	7	81	87	0	Imp.	-
6	740.5	15.8	14	172	0	0	14	56	172	0	Imp.	-
7	741.5	20.0	15	233	0	0	15	50	233	0	Imp.	-
8	742.5	14.0	24	261	0	0	24	60	261	0	Imp.	-
9	743.5	15.6	22	266	0	0	22	50	266	20	0.22	50
10	744.5	16.1	20	250	0	0	20	48	250	0	Imp.	-
11	745.5	16.0	24	298	0	0	24	61	298	0	Imp.	-
12	746.5	18.0	28	391	0	0	28	42	391	0	Imp.	-
13	747.5	13.7	23	244	0	0	23	52	244	8	0.15	50
14	748.6	13.2	32	328	0	0	32	60	328	0	Imp.	-
15	751.3	16.6	31	399	0	0	31	40	399	0	Imp.	-
16	752.5	17.4	30	405	0	0	20	51	405	8	0.15	50
17	753.5	14.6	46	521	0	0	46	35	521	0	Imp.	-
18	754.5	17.8	27	373	0	0	27	58	373	12	0.22	50
19	755.5	15.8	44	539	0	0	44	44	539	0	Imp.	-
20	756.5	16.0	39	484	0	0	39	40	484	0	Imp.	-
21	757.5	19.1	37	548	0	0	37	33	548	0	Imp.	-
22	758.5	16.5	40	512	0	0	40	46	512	6	0.15	50
23	759.5	10.5	31	253	0	0	31	61	253	0	Imp.	-
24	760.5	16.3	39	493	0	0	39	40	493	0	Imp.	-
25	761.5	16.7	34	440	0	0	34	51	440	0	Imp.	-
26	762.5	16.0	42	521	0	0	42	46	521	0	Imp.	-
27	763.5	15.8	42	515	0	0	42	37	515	0	Imp.	-

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.