

T. 23 N. 196 Sec. 10

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company James E. Russell Petroleum, Inc. Lease Minckley "B" Sec. 10 Well No. 109

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	726.5	12.3	16	79	95	153	Imp.	1.5	1.5	230	0.00
2	727.5	14.0	22	65	90	239	0.84	1.0	2.5	239	0.84
3	728.5	13.3	14	69	83	145	3.8	1.0	3.5	145	3.80
4	729.5	11.8	9	85	94	82	Imp.	1.0	4.5	82	0.00
5	730.5	11.5	13	85	98	116	Imp.	1.0	5.5	116	0.00
6	731.6	12.4	18	74	92	173	Imp.	1.3	6.8	224	0.00
7	732.5	13.2	30	58	88	307	0.17	0.7	7.5	215	0.12
8	733.5	15.3	27	54	81	321	2.4	1.0	8.5	321	2.40
9	734.6	15.3	23	49	72	273	1.5	1.0	9.5	273	1.50
10	735.5	14.2	28	47	75	309	Imp.	1.0	10.5	309	0.00
11	736.5	7.3	25	63	88	142	Imp.	1.0	11.5	142	0.00
12	737.5	12.7	31	67	98	305	0.56	1.3	12.8	396	0.73
13	738.5	11.5	14	81	95	125	5.6	0.7	13.5	88	3.92
14	739.5	15.4	19	50	69	227	1.7	1.0	14.5	227	1.70

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

Company James E. Russell Petroleum, Inc. Lease W. L. Minckley Well No. R-1

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.	Conn. Ft.		
1	692.5	18.9	50	23	73	733	22.	1.3	1.3	953	28.60
2	693.5	18.6	47	30	77	664	18.	1.0	2.3	664	18.00
3	694.5	19.1	46	25	71	682	12.	1.0	3.3	682	12.00
4	695.5	17.6	49	27	76	669	11.	1.0	4.3	669	11.00
5	696.5	16.7	50	26	76	648	7.7	1.0	5.3	648	7.70
6	697.5	16.1	48	31	79	600	8.8	1.0	6.3	600	8.80
7	698.5	16.9	48	27	75	630	6.2	1.0	7.3	630	6.20
8	699.5	18.0	52	25	77	726	24.	1.0	8.3	726	24.00
9	700.5	17.1	52	28	80	690	11.	1.2	9.5	829	13.20
10	701.5	16.9	43	29	72	564	8.3	0.5	10.0	282	4.15

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company James E. Russell Petroleum, Inc. Lease W. L. Minckley Well No. R-1

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	692.5	18.3	50	711	23	327	27	65	384	14	0.50	20
2	693.5	19.3	47	705	16	240	31	64	465	21	0.60	25
3	694.5	18.3	46	654	19	270	27	65	384	8	0.30	25
4	695.5	17.7	49	675	18	248	31	64	427	8	0.30	30
5	696.5	16.9	50	658	18	237	32	67	421	10	0.30	30
6	697.5	15.3	48	570	9	107	39	60	463	1	0.10	50
7	698.5	16.7	44	571	0	0	44	53	571	0	Imp.	-
8	699.5	19.3	52	780	18	270	34	59	510	7	0.30	30
9	700.5	18.3	52	741	15	214	37	57	527	3	0.20	40
10	701.5	16.7	38	494	0	0	38	59	494	1	0.10	50

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.