

FOR

BENTONITE SWELLING TEST COMPANY, P-3

## DENSITY LOG

## VELOCITY LOG

## DENSITY AND VELOCITY

DEPTH	RHO-B	GAL/TON	ACCUM. YIELD	RHO-B	GAL/TON	ACCUM. YIELD	GAL/TON	ACCUM. YIELD
760	2.280	29.4	29.4	2.358	21.4	21.4	25.4	25.4
761	2.160	41.3	70.7	2.310	26.4	47.8	33.8	59.2
762	2.200	37.4	108.1	2.248	32.7	80.5	35.1	94.3
763	2.280	29.4	137.6	2.258	31.6	112.1	30.5	124.8
764	2.220	35.4	173.0	2.341	23.2	135.3	29.3	154.1
765	2.260	31.5	204.5	2.384	18.7	153.9	25.1	179.2
766	2.380	19.1	223.5	2.427	14.1	168.0	16.6	195.7
767	2.420	14.8	238.3	2.427	14.1	182.0	14.4	210.2
768	2.420	14.8	253.2	2.431	13.6	195.7	14.2	224.4
769	2.400	17.0	270.1	2.436	13.1	208.7	15.0	239.4
770	2.390	18.0	288.1	2.427	14.1	222.8	16.0	255.5
771	2.420	14.8	302.9	2.431	13.6	236.4	14.2	269.7
772	2.460	10.5	313.4	2.440	12.7	249.1	11.6	281.2
773	2.460	10.5	323.9	2.423	14.5	263.6	12.5	293.7
774	2.420	14.8	338.7	2.405	15.4	280.0	15.6	309.3
775	2.410	15.5	354.6	2.362	21.0	301.0	18.4	327.8
776	2.420	14.8	369.4	2.305	26.9	327.8	20.8	343.6
777	2.370	20.1	389.5	2.269	30.5	358.3	25.3	373.9
778	2.330	24.3	413.8	2.238	33.7	392.0	29.0	402.9
779	2.290	28.4	442.2	2.227	34.7	426.7	31.6	434.5
780	2.220	35.4	477.7	2.227	34.7	461.5	35.1	469.6
781	2.250	32.5	510.2	2.216	35.9	497.3	34.2	501.7
782	2.320	25.3	535.5	2.238	33.7	531.0	29.5	533.2
783	2.340	23.3	558.8	2.254	32.1	563.1	27.7	560.9
784	2.290	28.4	587.2	2.248	32.7	595.8	30.6	591.5
785	2.180	39.4	626.5	2.227	34.7	630.5	37.0	628.5
786	2.090	47.9	674.4	2.156	41.7	672.2	44.8	673.3
787	2.090	47.9	722.3	2.056	51.0	723.2	49.5	722.8
788	2.110	46.0	768.4	2.008	55.4	778.6	50.7	773.5
789	2.050	51.6	819.9	2.056	51.0	829.6	51.3	824.8
790	1.950	57.8	877.8	2.132	44.0	873.6	50.9	875.7
791	2.020	54.3	932.1	2.199	37.5	911.1	45.9	921.6
792	2.180	39.4	971.4	2.269	30.5	941.6	34.9	956.5
793	2.280	29.4	1000.9	2.310	25.4	968.0	27.9	984.4
794	2.350	22.2	1023.1	2.362	21.0	989.0	21.6	1006.0
795	2.370	20.1	1043.2	2.375	19.6	1008.6	19.9	1025.9
796	2.320	25.3	1068.6	2.367	20.5	1029.0	22.9	1048.8
797	2.340	23.3	1091.8	2.375	19.6	1048.6	21.4	1070.2
798	2.350	22.2	1114.1	2.405	16.4	1065.0	19.3	1089.6
799	2.330	24.3	1138.4	2.410	15.9	1080.9	20.1	1109.7
800	2.310	26.4	1164.8	2.405	16.4	1097.3	21.4	1131.1
801	2.340	23.3	1188.0	2.380	19.1	1116.4	21.2	1152.2
802	2.300	27.4	1215.4	2.321	25.3	1141.7	26.3	1178.6
803	2.190	36.4	1253.8	2.290	28.5	1170.1	33.4	1212.0
804	2.080	48.8	1302.6	2.254	32.1	1202.2	40.5	1252.4
805	2.080	48.8	1351.5	2.199	37.5	1239.7	43.2	1295.6
806	2.230	34.4	1385.9	2.150	42.2	1282.0	38.3	1333.9
807	2.250	32.5	1418.4	2.056	51.0	1333.0	41.7	1375.7
808	2.160	41.3	1459.6	1.960	59.6	1392.6	50.4	1426.1
809	1.970	58.7	1518.4	1.903	64.5	1457.1	61.6	1487.7

WHITE RIVER SHALE OIL COMPANY P-3

DENSITY LOG

VELOCITY LOG

DENSITY AND VELOCITY

DEPTH	RHO-B	GAL/TON	ACCUM. YIELD	RHO-B	GAL/TON	ACCUM. YIELD	GAL/TON	ACCUM. YIELD
810	1.820	71.4	1589.7	1.829	70.6	1527.7	71.0	1558.7
811	1.740	77.7	1667.4	1.698	80.9	1608.7	79.3	1638.0
812	1.700	80.7	1748.2	1.559	91.0	1699.6	85.9	1723.9
813	1.660	83.7	1831.9	1.460	97.6	1797.2	90.7	1814.6
814	1.690	81.5	1913.4	1.624	86.4	1883.6	83.9	1898.5
815	1.800	73.0	1986.4	1.755	76.5	1960.2	74.8	1973.3
816	1.860	68.1	2054.5	1.836	70.0	2030.2	69.1	2042.3
817	1.870	67.3	2121.7	1.933	61.9	2092.1	64.6	2106.9
818	2.000	56.1	2177.8	2.043	52.2	2144.3	54.1	2161.1
819	2.170	40.3	2218.1	2.144	42.8	2187.1	41.5	2202.6
820	2.210	36.4	2254.5	2.238	33.7	2220.8	35.0	2237.6
821	2.120	45.1	2299.6	2.254	32.1	2252.9	38.6	2276.2
822	2.160	41.3	2340.9	2.181	39.3	2292.1	40.3	2316.5
823	2.190	38.4	2379.3	2.137	43.4	2335.6	40.9	2357.4
824	2.090	47.9	2427.2	2.095	47.4	2383.0	47.6	2405.1
825	1.960	59.6	2486.8	2.016	54.6	2437.6	57.1	2462.2
826	1.910	63.9	2550.7	1.960	59.6	2497.2	61.7	2523.9
827	1.980	57.8	2608.7	2.002	55.9	2553.1	56.9	2580.8
828	2.090	47.9	2656.4	2.056	51.0	2604.2	49.5	2630.3
829	2.140	43.2	2700.7	2.137	43.4	2647.6	43.3	2673.6
830	2.090	47.9	2747.5	2.192	38.2	2685.8	43.0	2716.6
831	2.140	43.2	2790.7	2.192	38.2	2724.0	40.7	2757.3
832	2.230	34.4	2825.1	2.181	39.3	2763.2	36.9	2794.2
833	2.210	36.4	2860.7	2.199	37.5	2800.7	37.0	2831.1
834	2.140	43.2	2894.7	2.216	35.9	2836.6	39.5	2870.7
835	2.090	47.9	2932.6	2.238	33.7	2870.2	40.8	2911.4
836	2.120	45.1	2977.7	2.279	29.6	2899.8	37.3	2948.8
837	2.310	26.4	3024.1	2.321	25.3	2925.1	25.8	2974.6
838	2.310	26.4	3050.5	2.321	25.3	2950.3	25.8	3000.4
839	2.300	27.4	3077.9	2.299	27.5	2977.8	27.4	3027.8
840	2.280	29.4	3107.3	2.263	31.1	3009.0	30.3	3058.1
841	2.120	44.1	3151.4	2.238	33.7	3042.6	38.9	3097.0
842	2.080	48.8	3200.3	2.205	37.0	3079.6	42.9	3139.9
843	2.120	44.1	3244.4	2.150	42.2	3121.8	43.2	3183.1
844	2.150	42.2	3286.6	2.174	40.0	3161.7	41.1	3224.2
845	2.160	41.3	3327.9	2.181	39.3	3201.0	40.3	3264.5
846	2.180	39.4	3367.3	2.232	34.3	3235.3	36.8	3301.3
847	2.250	32.5	3399.7	2.258	31.6	3266.9	32.0	3333.3
848	2.290	28.4	3428.2	2.279	29.6	3296.4	29.0	3362.3
849	2.310	26.4	3454.5	2.290	28.5	3324.9	27.4	3389.7
850	2.330	24.3	3478.8	2.315	25.9	3350.8	25.1	3414.8
851	2.330	24.3	3503.2	2.341	23.2	3374.0	23.7	3438.6
852	2.290	28.4	3531.6	2.362	21.0	3394.9	24.7	3463.3
853	2.280	29.4	3561.0	2.375	19.6	3414.5	24.5	3487.8
854	2.350	22.2	3583.3	2.362	21.0	3435.5	21.6	3509.4
855	2.340	23.3	3606.5	2.362	21.0	3456.5	22.1	3531.5
856	2.330	24.3	3630.8	2.397	17.3	3473.8	20.8	3552.3
857	2.320	25.3	3656.2	2.362	21.0	3494.7	23.2	3575.5
858	2.310	26.4	3682.6	2.269	30.5	3525.3	28.5	3603.9
859	2.310	26.4	3708.9	2.227	34.7	3560.0	30.6	3634.5

## KEROGEN ANALYSIS

FOR

WHITE RIVER SHALE OIL COMPANY P-3

## DENSITY LOG

## VELOCITY LOG

## DENSITY AND VELOCITY

DEPTH	RHO-B	GAL/TON	ACCUM. YIELD	RHO-B	GAL/TON	ACCUM. YIELD	GAL/TON	ACCUM. YIELD
860	2.310	26.4	3735.3	2.216	35.9	3595.9	31.1	3665.6
861	2.290	28.4	3763.7	2.137	43.4	3639.3	35.9	3701.5
862	2.240	33.5	3797.2	2.121	45.0	3684.3	39.2	3740.8
863	2.260	31.5	3828.6	2.144	42.8	3727.1	37.1	3777.9
864	2.300	27.4	3856.0	2.181	39.3	3766.4	33.3	3811.2
865	2.170	40.3	3896.4	2.192	38.2	3804.6	39.3	3850.5
866	2.130	44.1	3940.5	2.232	34.3	3838.8	39.2	3889.7
867	2.320	25.3	3965.9	2.279	29.6	3868.4	27.5	3917.1
868	2.360	21.2	3987.0	2.341	23.2	3891.5	22.2	3939.3
869	2.390	18.0	4005.1	2.362	21.0	3912.5	19.5	3958.8
870	2.390	18.0	4023.1	2.341	23.2	3935.7	20.6	3979.4
871	2.350	22.2	4045.3	2.310	26.4	3962.1	24.3	4003.7
872	2.220	35.4	4080.7	2.279	29.6	3991.6	32.5	4036.2
873	2.150	42.2	4123.0	2.269	30.5	4022.1	36.4	4072.6
874	2.150	42.2	4165.2	2.284	29.1	4051.2	35.7	4108.2
875	2.230	34.4	4199.7	2.310	26.4	4077.6	30.4	4138.6
876	2.230	34.4	4199.7	2.341	23.2	4100.8	28.8	4167.4
877	2.310	26.4	4199.7	2.175	12.6	4120.4	23.0	4190.4
878	2.420	14.8	4225.3	2.401	16.8	4137.2	15.8	4208.3
879	2.420	14.8	4238.1	2.427	14.1	4151.3	14.4	4220.7
880	2.390	18.0	4308.1	2.448	11.8	4163.0	14.9	4235.6
881	2.380	19.1	4308.1	2.448	11.8	4174.8	15.4	4251.0
882	2.400	17.0	4308.1	2.436	13.1	4187.9	15.0	4266.0
883	2.390	18.0	4308.1	2.436	13.1	4201.0	15.6	4281.6
884	2.390	18.0	4380.2	2.431	13.6	4214.6	15.8	4297.4
885	2.390	18.0	4398.2	2.431	13.6	4228.2	15.8	4313.2
886	2.400	17.0	4415.2	2.440	12.7	4240.9	14.8	4328.0
887	2.400	17.0	4432.1	2.444	12.2	4253.1	14.6	4342.6
888	2.400	17.0	4449.1	2.444	12.2	4265.3	14.6	4357.2
889	2.350	22.2	4471.3	2.440	12.7	4278.0	17.4	4374.6
890	2.320	25.3	4496.6	2.448	11.8	4289.7	18.6	4393.2
891	2.350	22.2	4518.9	2.431	13.6	4303.4	17.9	4411.1
892	2.340	23.3	4542.1	2.423	14.5	4317.8	18.9	4430.0
893	2.330	24.3	4566.5	2.440	12.7	4330.5	18.5	4448.5
894	2.320	25.3	4591.8	2.453	11.2	4341.7	18.3	4466.8
895	2.320	25.3	4617.1	2.461	10.4	4352.1	17.9	4484.6
896	2.370	20.1	4637.3	2.466	9.8	4361.9	15.0	4499.6
897	2.410	15.9	4653.2	2.466	9.8	4371.7	12.8	4512.4
898	2.390	18.0	4671.2	2.461	10.4	4382.1	14.2	4526.6
899	2.390	18.0	4689.2	2.466	9.8	4391.9	13.9	4540.5
900	2.400	17.0	4706.1	2.487	7.5	4399.4	12.2	4552.8
901	2.380	19.1	4725.2	2.487	7.5	4406.9	12.3	4566.1
902	2.410	15.9	4741.1	2.483	7.9	4414.8	11.9	4578.0
903	2.420	14.8	4755.9	2.483	7.9	4422.8	11.4	4589.3
904	2.400	17.0	4772.9	2.487	7.5	4430.3	12.2	4601.6
905	2.400	17.0	4789.8	2.483	7.9	4438.2	12.4	4614.0
906	2.390	18.0	4807.8	2.483	7.9	4446.1	13.0	4627.0
907	2.390	18.0	4825.8	2.487	7.5	4453.6	12.8	4639.8
908	2.390	18.0	4843.9	2.483	7.9	4461.6	13.0	4652.7
909	2.350	22.2	4866.1	2.479	8.4	4470.0	15.3	4668.0

## K E R O G E N   A N A L Y S I S

FOR

WHITE RIVER SHALE OIL COMPANY P-3

## DENSITY LOG

## VELOCITY LOG

## DENSITY AND VELOCITY

DEPTH	RHO-B	GAL/TON	ACCUM. YIELD	RHO-B	GAL/TON	ACCUM. YIELD	GAL/TON	ACCUM. YIELD
910	2.350	22.2	4888.3	2.470	9.4	4479.3	15.8	4683.8
911	2.350	22.2	4910.6	2.479	8.4	4487.7	15.3	4699.2
912	2.400	17.0	4927.5	2.474	8.9	4496.7	12.9	4712.1
913	2.450	11.6	4939.1	2.470	9.4	4506.0	10.5	4722.6
914	2.420	14.8	4953.9	2.479	8.4	4514.4	11.6	4734.2
915	2.460	10.5	4964.3	2.384	18.7	4533.1	14.6	4748.7
916	2.460	10.5	4974.8	2.321	25.3	4558.3	17.9	4766.6
917	2.340	23.3	4998.1	2.310	26.4	4584.7	24.8	4791.4
918	2.170	40.3	5038.4	2.279	29.6	4614.3	34.9	4826.4
919	1.990	57.0	5095.4	2.248	32.7	4647.0	44.8	4871.2
920	2.180	39.4	5134.7	2.174	40.0	4686.9	39.7	4910.8
921	2.300	27.4	5162.1	2.181	39.3	4726.2	33.3	4944.2
922	2.130	44.1	5206.3	2.192	38.2	4764.4	41.2	4985.3
923	2.070	49.7	5256.0	2.216	35.9	4800.2	42.8	5028.1
924	2.280	29.4	5285.4	2.269	30.5	4830.7	30.0	5058.1
925	2.350	22.2	5307.7	2.310	26.4	4857.1	24.3	5082.5
926	2.400	17.0	5324.6	2.341	23.2	4890.3	20.1	5102.5
927	2.390	18.0	5342.6	2.383	19.1	4899.4	18.5	5121.0
928	2.360	21.2	5363.8	2.418	15.0	4914.4	18.1	5139.1
929	2.370	20.1	5387.9	2.436	13.1	4927.5	16.6	5155.7
930	2.390	18.0	5402.0	2.453	11.2	4938.7	14.6	5170.3
931	2.370	20.1	5422.1	2.470	9.4	4948.1	14.8	5185.1
932	2.390	18.0	5440.1	2.479	8.4	4956.5	13.2	5198.3
933	2.440	12.7	5465.4	2.479	8.4	4964.8	10.5	5208.3
934	2.440	12.7	5481.3	2.470	9.4	4974.2	11.0	5219.8
935	2.410	15.9	5481.3	2.440	12.7	4986.9	14.3	5234.1
936	2.420	14.8	5496.1	2.423	14.5	5001.3	14.6	5248.7
937	2.440	12.7	5508.7	2.418	15.0	5016.4	13.8	5262.6
938	2.400	17.0	5525.7	2.423	14.5	5030.9	15.7	5278.3
939	2.330	24.3	5550.0	2.410	15.9	5046.7	20.1	5298.4
940	2.370	20.1	5570.1	2.405	16.4	5063.2	18.3	5316.7
941	2.400	17.0	5587.1	2.405	16.4	5079.6	16.7	5333.4
942	2.390	18.0	5605.1	2.401	16.8	5096.4	17.4	5350.8
943	2.390	18.0	5623.1	2.397	17.3	5113.7	17.6	5368.4
944	2.380	19.1	5642.2	2.380	19.1	5132.8	19.1	5387.5
945	2.390	18.0	5660.2	2.367	20.5	5153.2	19.2	5406.7
946	2.370	20.1	5680.4	2.349	22.3	5175.6	21.2	5428.0
947	2.330	24.3	5704.7	2.345	22.8	5198.3	23.5	5451.5
948	2.260	31.5	5736.1	2.354	21.8	5220.1	26.6	5478.1
949	2.190	38.4	5774.5	2.367	20.5	5240.6	29.4	5507.6
950	2.310	26.4	5800.9	2.384	18.7	5259.2	22.5	5530.1
951	2.390	18.0	5818.9	2.341	23.2	5282.4	20.6	5550.7
952	2.280	29.4	5848.3	2.310	26.4	5308.8	27.9	5578.6
953	2.090	47.9	5896.2	2.290	28.5	5337.2	38.2	5616.7
954	2.060	50.7	5946.9	2.238	33.7	5370.9	42.2	5658.9
955	2.130	44.1	5991.0	2.238	33.7	5404.5	38.9	5697.8
956	2.210	36.4	6027.4	2.263	31.1	5435.7	33.8	5731.6
957	2.170	40.3	6067.8	2.336	23.6	5459.3	32.0	5763.6
958	2.140	43.2	6110.9	2.362	21.0	5480.3	32.1	5795.6
959	2.250	22.2	6143.4	2.354	21.8	5502.1	27.1	5822.8

# KERUGER ANALYSIS

FOR

WHITE RIVER SHALE OIL COMPANY P-3

## DENSITY LOG

## VELOCITY LOG

## DENSITY AND VELOCITY

TH	RHO-B	GAL/TON	ACCUM. YIELD	RHO-B	GAL/TON	ACCUM. YIELD	GAL/TON	ACCUM. YIELD
960	2.300	27.4	6170.8	2.367	20.5	5522.5	23.9	5846.7
961	2.280	29.4	6200.2	2.384	18.7	5541.2	24.0	5870.7
962	2.280	29.4	6229.7	2.362	21.0	5562.2	25.2	5895.9
963	2.280	29.4	6259.1	2.336	23.6	5585.8	26.5	5922.5
964	2.300	27.4	6286.5	2.330	24.3	5610.1	25.8	5948.3
965	2.300	27.4	6313.9	2.336	23.6	5633.7	25.5	5972.8
966	2.290	28.4	6342.3	2.310	26.4	5660.1	27.4	6001.2
967	2.320	25.3	6367.7	2.299	27.5	5687.6	26.4	6027.6
968	2.320	25.3	6393.0	2.336	23.6	5711.2	24.5	6052.1
969	2.260	31.5	6424.5	2.362	21.0	5732.2	26.2	6078.4
970	2.200	37.4	6461.9	2.375	19.6	5751.8	28.5	6106.9
971	2.300	27.4	6489.3	2.405	16.4	5768.2	21.9	6128.8
972	2.390	18.0	6507.3	2.453	11.2	5779.5	14.6	6143.4
973	2.390	18.0	6525.3	2.453	11.2	5790.7	14.6	6158.0
974	2.390	18.0	6543.3	2.427	14.1	5804.8	16.0	6174.1
975	2.400	17.0	6561.3	2.405	16.4	5821.2	16.7	6190.7
976	2.400	17.0	6577.2	2.367	20.5	5841.6	18.7	6209.4
977	2.320	25.3	6602.6	2.330	24.3	5865.9	24.8	6234.3
978	2.270	30.4	6633.0	2.315	25.9	5891.8	28.2	6262.4
979	2.240	33.5	6664.9	2.336	23.6	5915.4	28.6	6291.0
980	2.170	40.3	6696.8	2.367	20.5	5935.9	30.4	6321.3
981	2.300	27.4	6728.7	2.367	20.5	5956.3	23.9	6345.3
982	2.370	20.1	6754.3	2.397	17.3	5973.6	18.7	6364.0
983	2.370	20.1	6774.4	2.418	15.0	5988.6	17.6	6381.6
984	2.330	24.3	6796.7	2.410	15.9	6004.5	20.1	6401.6
985	2.310	26.4	6825.1	2.410	15.9	6020.4	21.1	6422.8
986	2.330	24.3	6849.4	2.418	15.0	6035.4	19.7	6442.4
987	2.310	26.4	6875.8	2.410	15.9	6051.3	21.1	6463.6
988	2.310	26.4	6902.2	2.410	15.9	6067.2	21.1	6484.7
989	2.300	27.4	6929.6	2.397	17.3	6084.4	22.3	6507.0
990	2.320	25.3	6954.9	2.384	18.7	6103.1	22.0	6529.0
991	2.330	24.3	6979.2	2.384	18.7	6121.8	21.5	6550.5
992	2.330	24.3	7003.6	2.388	18.2	6140.0	21.3	6571.8
993	2.330	24.3	7027.9	2.392	17.8	6157.8	21.1	6592.9
994	2.330	24.3	7052.2	2.384	18.7	6176.4	21.5	6614.3
995	2.340	23.3	7075.4	2.388	18.2	6194.7	20.8	6635.1
996	2.360	21.2	7096.6	2.397	17.3	6211.9	19.2	6654.3
997	2.370	20.1	7116.8	2.392	17.8	6229.8	19.0	6673.3
998	2.370	20.1	7136.9	2.397	17.3	6247.0	18.7	6692.0
999	2.370	20.1	7157.0	2.410	15.9	6262.9	18.0	6710.0
1000	2.340	23.3	7180.3	2.418	15.0	6277.9	19.2	6729.1
1001	2.330	24.3	7204.6	2.418	15.0	6293.0	19.7	6748.8
1002	2.380	19.1	7223.7	2.427	14.1	6307.0	16.6	6765.4
1003	2.370	20.1	7243.8	2.440	12.7	6319.7	16.4	6781.8
1004	2.370	20.1	7264.0	2.453	11.2	6330.9	15.7	6797.4
1005	2.350	18.0	7282.0	2.461	10.4	6341.3	14.2	6811.6
1006	2.350	18.0	7300.0	2.440	12.7	6352.9	15.3	6827.0
1007	2.360	21.2	7321.2	2.410	15.9	6365.8	13.5	6845.5
1008	2.340	23.3	7344.4	2.397	17.3	6387.1	20.3	6865.8
1009	2.350	22.4	7372.6	2.397	17.3	6404.3	22.8	6888.6

## WHITE RIVER SHALE OIL COMPANY P-3

PTH	DENSITY LOG			VELOCITY LOG			DENSITY AND VELOCITY	
	RHO-B	GAL/TON	ACCUM. YIELD	RHC-B	GAL/TON	ACCUM. YIELD	GAL/TON	ACCUM. YIELD
1010	2.250	32.5	7405.3	2.401	16.8	6421.2	24.7	6913.3
1011	2.300	27.4	7432.7	2.436	13.1	6434.3	20.2	6933.5
1012	2.360	21.2	7453.9	2.470	9.4	6443.6	15.3	6948.8
1013	2.370	20.1	7474.0	2.487	7.5	6451.1	13.8	6962.6
1014	2.420	14.8	7488.8	2.487	7.5	6458.6	11.2	6973.8
1015	2.420	14.8	7503.7	2.444	12.2	6470.3	13.5	6987.3
1016	2.420	14.8	7518.5	2.410	15.9	6486.7	15.3	7002.6
1017	2.370	20.1	7538.6	2.401	16.8	6503.6	18.5	7021.1
1018	2.250	28.4	7567.0	2.392	17.8	6521.4	23.1	7044.2
1019	2.120	39.4	7606.4	2.380	19.1	6540.5	29.2	7073.4
1020	2.210	36.4	7642.8	2.336	23.6	6564.1	30.0	7103.5
1021	2.260	31.5	7674.2	2.290	28.5	6592.6	30.0	7133.4
1022	2.230	34.4	7708.7	2.305	26.9	6619.4	30.7	7164.1
1023	2.120	45.1	7753.8	2.305	26.9	6646.3	36.0	7200.1
1024	2.050	41.6	7805.3	2.290	28.5	6674.3	40.0	7240.1
1025	2.120	44.1	7845.5	2.305	26.9	6701.6	35.5	7275.6
1026	2.280	39.4	7896.9	2.380	19.1	6720.7	24.3	7299.8
1027	2.390	18.0	7947.1	2.427	14.1	6734.8	16.0	7315.9
1028	2.370	20.1	7997.1	2.440	12.7	6747.4	16.4	7332.3
1029	2.320	25.3	8042.4	2.453	11.2	6758.6	18.3	7350.6
1030	2.320	25.3	8077.8	2.470	9.4	6768.0	17.4	7367.9
1031	2.350	22.2	8117.0	2.479	8.4	6776.4	15.3	7383.2
1032	2.370	20.1	8157.3	2.479	8.4	6784.8	14.3	7397.5
1033	2.370	20.1	8030.2	2.479	8.4	6793.2	14.3	7411.7
1034	2.370	20.1	8050.4	2.479	8.4	6801.5	14.3	7426.0
1035	2.350	22.2	8072.6	2.479	8.4	6809.0	15.3	7441.3
1036	2.360	21.2	8093.8	2.479	8.4	6818.3	14.8	7456.1
1037	2.380	19.1	8112.9	2.487	7.5	6825.8	13.3	7469.4
1038	2.350	22.2	8135.1	2.487	7.5	6833.3	14.9	7484.2
1039	2.350	22.2	8157.3	2.496	6.5	6839.8	14.4	7498.6
1040	2.370	20.1	8177.5	2.509	5.1	6844.9	12.6	7511.2
1041	2.370	20.1	8197.6	2.509	5.1	6849.9	12.6	7523.8
1042	2.330	24.3	8221.9	2.504	5.6	6855.5	15.0	7538.8
1043	2.320	25.3	8247.3	2.504	5.6	6861.2	15.5	7554.2
1044	2.370	20.1	8267.4	2.500	6.1	6867.2	13.1	7567.3
1045	2.400	17.0	8284.3	2.483	7.9	6875.2	12.4	7579.8
1046	2.410	15.9	8300.2	2.483	7.9	6883.1	11.9	7591.7
1047	2.410	15.9	8316.1	2.483	7.9	6891.0	11.9	7603.6
1048	2.380	19.1	8335.2	2.479	8.4	6899.4	13.7	7617.4
1049	2.360	21.2	8356.4	2.483	7.9	6907.4	14.6	7631.9
1050	2.340	23.3	8379.6	2.483	7.9	6915.3	15.6	7647.5
1051	2.340	23.3	8402.9	2.483	7.9	6923.3	15.6	7663.1
1052	2.330	24.3	8427.2	2.470	9.4	6932.6	16.8	7680.0
1053	2.350	22.2	8449.5	2.461	10.4	6943.0	16.3	7696.3
1054	2.350	22.2	8471.7	2.453	11.2	6954.2	16.7	7713.0
1055	2.320	25.3	8497.0	2.453	11.2	6965.5	18.3	7731.3
1056	2.320	25.3	8522.4	2.453	11.2	6976.7	18.3	7749.6
1057	2.310	26.4	8548.8	2.470	9.4	6986.1	17.9	7767.5
1058	2.270	30.4	8579.2	2.487	7.5	6993.6	19.0	7786.4
1059	2.260	29.4	8608.6	2.487	7.5	7001.1	18.5	7804.9

## KERUGEN ANALYSIS

FCR

WHITE RIVER SHALE OIL COMPANY P-3

## DENSITY LOG

## VELOCITY LOG

## DENSITY AND VELOCITY

DEPTH	RHO-B	GAL/TON	ACCUM. YIELD	RHO-B	GAL/TON	ACCUM. YIELD	GAL/TON	ACCUM. YIELD
1060	2.340	23.3	8631.9	2.479	8.4	7009.4	15.8	7820.7
1061	2.370	20.1	8652.0	2.470	9.4	7018.8	14.8	7835.5
1062	2.370	20.1	8672.2	2.448	11.8	7030.6	16.0	7851.4
1063	2.330	24.3	8696.5	2.431	13.6	7044.2	19.0	7870.4
1064	2.290	28.4	8724.9	2.410	15.9	7060.1	22.2	7892.6
1065	2.300	27.4	8752.3	2.401	16.8	7076.9	22.1	7914.7
1066	2.290	28.4	8780.7	2.405	16.4	7093.4	22.4	7937.1
1067	2.320	25.3	8806.1	2.405	16.4	7109.8	20.9	7958.0
1068	2.350	22.2	8828.3	2.418	15.0	7124.8	18.6	7976.6
1069	2.370	20.1	8848.4	2.444	12.2	7137.0	16.2	7992.8
1070	2.380	19.1	8867.5	2.470	9.4	7146.4	14.2	8007.0
1071	2.350	22.2	8889.7	2.479	8.4	7154.8	15.3	8022.3
1072	2.370	20.1	8909.9	2.479	8.4	7163.2	14.3	8036.6
1073	2.380	19.1	8928.9	2.470	9.4	7172.5	14.2	8050.8
1074	2.370	20.1	8949.1	2.466	9.8	7182.3	15.0	8065.8
1075	2.370	20.1	8969.2	2.461	10.4	7192.7	15.2	8081.0
1076	2.350	22.2	8991.2	2.448	11.8	7204.5	17.0	8098.0
1077	2.320	25.3	9016.8	2.444	12.2	7216.7	18.8	8116.8
1078	2.330	24.3	9041.1	2.448	11.8	7228.5	18.0	8134.9
1079	2.330	24.3	9065.4	2.453	11.2	7239.7	17.8	8152.6
1080	2.370	20.1	9085.4	2.461	10.4	7250.1	15.2	8167.9
1081	2.360	21.2	9108.7	2.461	10.4	7260.4	15.8	8183.6
1082	2.360	21.2	9128.7	2.453	11.2	7271.7	16.2	8199.9
1083	2.370	20.1	9148.0	2.425	14.5	7286.1	17.3	8217.2
1084	2.350	22.2	9170.3	2.410	15.9	7302.0	19.1	8236.2
1085	2.300	27.4	9197.7	2.397	17.3	7319.3	22.3	8258.6
1086	2.300	27.4	9225.1	2.384	18.7	7338.0	23.0	8281.6
1087	2.250	32.5	9257.5	2.362	21.0	7358.9	26.7	8308.3
1088	2.280	29.4	9287.0	2.341	23.2	7382.1	26.3	8334.6
1089	2.270	30.4	9317.4	2.375	19.6	7401.7	25.0	8359.6
1090	2.250	32.5	9349.9	2.384	18.7	7420.4	25.6	8385.2
1091	2.290	28.4	9378.3	2.375	19.6	7440.0	24.0	8409.2
1092	2.320	25.3	9403.6	2.367	20.5	7460.4	22.9	8432.1
1093	2.310	26.4	9430.0	2.384	18.7	7479.1	22.5	8454.6
1094	2.210	36.4	9466.4	2.397	17.3	7496.3	26.8	8481.5
1095	2.180	39.4	9505.8	2.384	18.7	7515.0	29.0	8510.5
1096	2.170	40.3	9546.1	2.388	18.2	7533.2	29.3	8539.7
1097	2.280	29.4	9575.5	2.401	16.8	7550.1	23.1	8562.9
1098	2.290	28.4	9603.9	2.453	11.2	7561.3	19.8	8582.7
1099	2.310	26.4	9630.3	2.470	9.4	7570.7	17.9	8600.6
1100	2.350	22.2	9652.5	2.470	9.4	7580.0	15.8	8616.4
1101	2.390	18.0	9670.6	2.470	9.4	7589.4	13.7	8630.1
1102	2.410	15.9	9686.4	2.470	9.4	7598.8	12.6	8642.7
1103	2.410	15.9	9702.3	2.479	8.4	7607.2	12.1	8654.8
1104	2.420	14.8	9717.1	2.479	8.4	7615.6	11.6	8666.4
1105	2.420	14.8	9731.5	2.470	9.4	7624.9	12.1	8678.5
1106	2.420	14.8	9746.7	2.470	9.4	7634.3	12.1	8690.6
1107	2.340	19.1	9765.8	2.470	9.4	7643.7	14.2	8704.8
1108	2.370	20.1	9786.0	2.466	9.8	7653.5	15.0	8719.8
1109	2.370	20.1	9806.1	2.453	11.2	7664.7	15.7	8735.5

# RECORDING ANALYSIS

FOR

WHITE RIVER SHALE OIL COMPANY P-3

## DENSITY LOG

## VELOCITY LOG

## DENSITY AND VELOCITY

DEPTH	RHO-B	GAL/TON	ACCUM. YIELD	RHO-B	GAL/TON	ACCUM. YIELD	GAL/TON	ACCUM. YIELD
1110	2.420	14.8	9820.9	2.423	14.5	7679.2	14.6	8750.1
1111	2.410	15.3	9836.8	2.423	14.5	7693.7	15.2	8765.3
1112	2.410	15.9	9852.7	2.423	14.5	7708.2	15.2	8780.5
1113	2.410	15.9	9868.5	2.444	12.2	7720.4	14.1	8794.6
1114	2.380	19.1	9887.6	2.466	9.8	7730.2	14.4	8809.0
1115	2.390	18.0	9905.6	2.461	10.4	7740.6	14.2	8823.2
1116	2.400	17.0	9922.6	2.470	9.4	7749.9	13.2	8836.4
1117	2.460	10.5	9933.1	2.466	9.8	7759.8	10.1	8846.5
1118	2.450	11.6	9944.6	2.483	7.9	7767.7	9.8	8856.3
1119	2.420	13.7	9958.4	2.483	7.9	7775.6	10.8	8867.1
1120	2.420	14.8	9973.2	2.522	3.6	7779.3	9.2	8876.3
1121	2.460	10.5	9983.6	2.526	3.2	7782.4	6.8	8883.1
1122	2.440	12.7	9996.3	2.526	3.2	7785.6	7.9	8891.0
1123	2.420	14.8	10011.1	2.526	3.2	7788.7	9.0	8900.0
1124	2.460	10.5	10021.6	2.504	5.6	7794.3	8.0	8908.0
1125	2.460	10.5	10032.0	2.509	5.1	7799.4	7.8	8915.8
1126	2.470	9.4	10042.4	2.504	5.6	7805.0	7.5	8923.3
1127	2.460	10.5	10051.9	2.479	8.4	7813.4	9.4	8932.7
1128	2.450	11.6	10061.3	2.461	10.4	7823.7	11.0	8943.7
1129	2.460	10.5	10073.9	2.461	10.4	7834.1	10.4	8954.1
1130	2.410	15.9	10088.8	2.466	9.8	7843.9	12.8	8966.9
1131	2.370	20.1	10109.9	2.466	9.8	7853.7	15.0	8981.9
1132	2.350	22.2	10122.4	2.483	7.9	7861.7	15.1	8997.0
1133	2.400	17.0	10145.1	2.504	5.6	7867.3	11.3	9008.3
1134	2.460	10.5	10159.6	2.522	3.6	7870.9	7.0	9015.3
1135	2.470	9.4	10168.9	2.526	3.2	7874.0	6.3	9021.6
1136	2.440	12.7	10181.6	2.517	4.2	7878.2	8.4	9030.0
1137	2.460	10.5	10192.1	2.504	5.6	7883.8	8.0	9038.0
1138	2.450	11.6	10203.6	2.487	7.5	7891.3	9.5	9047.6
1139	2.420	13.7	10217.4	2.487	7.5	7898.8	10.6	9058.2
1140	2.410	15.9	10233.2	2.492	6.9	7905.8	11.4	9069.6
1141	2.440	12.7	10245.9	2.500	6.1	7911.8	9.4	9079.0
1142	2.470	9.4	10255.3	2.504	5.6	7917.4	7.5	9086.5
1143	2.470	9.4	10264.6	2.496	6.5	7923.9	7.9	9094.4
1144	2.440	12.7	10277.3	2.496	6.5	7930.5	9.6	9104.0
1145	2.460	10.5	10287.8	2.496	6.5	7937.0	8.5	9112.5
1146	2.460	8.3	10296.0	2.496	6.5	7943.5	7.4	9119.8
1147	2.480	8.3	10304.3	2.504	5.6	7949.1	6.9	9126.8
1148	2.480	8.3	10312.6	2.504	5.6	7954.7	6.9	9133.7
1149	2.450	11.6	10324.1	2.500	6.1	7960.7	8.8	9142.6
1150	2.480	8.3	10332.4	2.496	6.5	7967.3	7.4	9149.9
1151	2.480	8.3	10340.7	2.500	6.1	7973.3	7.2	9157.1
1152	2.450	11.6	10352.2	2.496	6.5	7979.8	9.0	9166.1
1153	2.460	10.5	10362.7	2.504	5.6	7985.4	8.0	9174.2
1154	2.450	11.6	10374.3	2.509	5.1	7990.5	8.3	9182.5
1155	2.400	17.0	10391.2	2.526	3.2	7993.6	10.1	9192.5
1156	2.350	22.2	10413.5	2.526	3.2	7996.8	12.7	9205.2
1157	2.410	15.9	10429.3	2.509	5.1	8001.9	10.5	9215.7
1158	2.450	11.6	10440.9	2.500	6.1	8007.9	8.8	9224.5
1159	2.420	14.8	10455.7	2.492	6.9	8014.9	10.9	9235.4

WHITE RIVER SHALE OIL COMPANY P-3

DEPTH	DENSITY LOG			VELOCITY LOG			DENSITY AND VELOCITY	
	RHO-B	GAL/TON	ACCUM. YIELD	RHO-B	GAL/TON	ACCUM. YIELD	GAL/TON	ACCUM. YIELD
1160	2.420	14.8	10470.5	2.487	7.5	8022.4	11.2	9246.6
1161	2.390	18.0	10488.5	2.483	7.9	8030.3	13.0	9259.5
1162	2.380	19.1	10507.6	2.483	7.9	8038.2	13.5	9273.0
1163	2.370	20.1	10527.8	2.487	7.5	8045.7	13.8	9286.9
1164	2.380	19.1	10546.8	2.487	7.5	8053.2	13.3	9300.2
1165	2.420	14.8	10561.6	2.500	6.1	8059.3	10.4	9310.6
1166	2.420	14.8	10576.4	2.496	6.5	8065.8	10.7	9321.2
1167	2.420	14.8	10591.3	2.487	7.5	8073.3	11.2	9332.4
1168	2.420	14.8	10606.1	2.483	7.9	8081.3	11.4	9343.8
1169	2.400	17.0	10623.0	2.492	6.9	8088.2	12.0	9355.7
1170	2.420	14.8	10637.8	2.509	5.1	8093.3	9.9	9365.7
1171	2.450	11.6	10649.4	2.504	5.6	8098.9	8.6	9374.2
1172	2.460	10.5	10659.9	2.504	5.6	8104.5	8.0	9382.3
1173	2.410	15.9	10675.7	2.500	6.1	8110.5	11.0	9393.3
1174	2.440	12.7	10688.4	2.470	9.4	8119.9	11.0	9404.3
1175	2.460	10.5	10698.9	2.453	11.2	8131.2	10.9	9415.1
1176	2.410	15.9	10714.7	2.440	12.7	8143.8	14.3	9429.4
1177	2.380	19.1	10733.8	2.410	15.9	8159.7	17.5	9446.9
1178	2.320	25.3	10759.2	2.341	23.2	8182.9	24.3	9471.1
1179	2.320	25.3	10784.5	2.349	22.3	8205.2	23.8	9495.0
1180	2.380	19.1	10803.6	2.362	21.0	8226.2	20.0	9515.0
1181	2.300	27.4	10827.0	2.401	16.8	8243.0	22.1	9537.1
1182	2.210	36.7	10844.2	2.401	16.8	8259.8	26.6	9563.8
1183	2.300	27.4	10894.8	2.410	15.9	8275.7	21.6	9585.4
1184	2.350	18.0	10912.8	2.427	14.1	8289.8	16.0	9601.4
1185	2.410	15.9	10928.7	2.418	15.0	8304.8	15.5	9616.9
1186	2.420	14.8	10943.5	2.405	16.4	8321.2	15.6	9632.5
1187	2.350	22.2	10965.7	2.405	16.4	8337.6	19.3	9651.8
1188	2.210	36.4	11002.2	2.375	19.6	8357.3	28.0	9679.8
1189	2.300	27.4	11029.6	2.341	23.2	8380.4	25.3	9705.1
1190	2.420	14.8	11044.4	2.326	24.8	8405.2	19.8	9724.9
1191	2.300	27.4	11071.8	2.354	21.8	8427.0	24.6	9749.5
1192	2.170	40.3	11112.1	2.341	23.2	8450.2	31.7	9781.3
1193	2.170	40.3	11152.4	2.336	23.6	8473.8	32.0	9813.2
1194	2.230	34.4	11186.8	2.349	22.3	8496.1	28.4	9841.6
1195	2.270	30.4	11217.3	2.380	19.1	8515.2	24.8	9866.4
1196	2.310	26.4	11243.7	2.414	15.5	8530.7	20.9	9887.3
1197	2.320	25.3	11269.0	2.440	12.7	8543.3	19.0	9906.3
1198	2.280	29.4	11298.4	2.440	12.7	8556.0	21.0	9927.3
1199	2.290	26.4	11326.9	2.431	13.6	8569.6	21.0	9948.4
1200	2.340	23.3	11350.1	2.418	15.0	8584.6	19.2	9967.5
1201	2.370	20.1	11370.3	2.401	16.8	8601.5	18.5	9986.0
1202	2.350	22.2	11392.5	2.375	19.6	8621.1	20.9	10006.9
1203	2.350	22.2	11414.7	2.380	19.1	8640.1	20.7	10027.6
1204	2.310	26.4	11441.1	2.384	18.7	8658.8	22.5	10050.1
1205	2.290	28.4	11469.5	2.392	17.8	8676.6	23.1	10072.2
1206	2.310	26.4	11495.9	2.405	15.4	8693.0	21.4	10094.6
1207	2.310	26.4	11522.3	2.423	14.5	8707.5	20.4	10115.0
1208	2.290	28.4	11550.7	2.427	14.1	8721.6	21.2	10126.3
1209	2.290	28.4	11579.1	2.431	13.6	8735.2	21.0	10157.3

## KEROGEN ANALYSTS

FOR

WHITE RIVER SHALE OIL COMPANY P-3

DEPTH	DENSITY LOG			VELOCITY LOG			DENSITY AND VELOCITY	
	RHO-B	GAL/TON	ACCUM. YIELD	RHO-B	GAL/TON	ACCUM. YIELD	GAL/TON	ACCUM. YIELD
1210	2.290	28.4	11607.5	2.436	13.1	8748.3	20.8	10178.0
1211	2.320	25.3	11632.9	2.405	16.4	8764.7	20.9	10198.9
1212	2.340	23.3	11656.1	2.367	20.5	8785.1	21.9	10220.8
1213	2.340	23.3	11679.4	2.330	24.3	8809.4	23.8	10244.5
1214	2.300	27.4	11706.8	2.279	29.6	8839.0	28.5	10273.0