

155  
45  
70

2277 164 of 159/ 52' of 259/ 32' of 309/

U-34 ?

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Watson  
Samples from Skyline Oil Company's Skyline-~~Robertson~~ core hole No. 4, drilled 320 feet south of North line, 1630 feet West of East line, Sec. 22, T. 11 S., R. 25 E., Uintah County, Utah

Surface Elevation 6143.7 feet

Mahogany marker at 367.4 feet

Mahogany marker 5763.7

Surfaces elevation 1900

Makogany marker 5763.7

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60° F.		Properties of spent shale		Remarks
Laramie	Thick		Weight percent		Spent shale	Gas + loss	Cal. per ton		Tendency to	coke	
		Oil	Water	Oil			Water				
SBR60-2607	20-22.8	65978	4.2	0.5	94.2	1.1	10.8	1.3	0.925	None	
SBR60-2608	22.8-24.0	65979	1.4	.5	97.1	1.0	3.6a	1.3		None	
SBR60-2609	24.0-26.0	65980	2.0	.7	96.5	.8	5.1a	1.7		None	
SBR60-2610	26.0-28.0	65981	1.3	.5	97.7	.5	3.4a	1.1		None	
SBR60-2611	28.0-29.0	65982	1.3	.8	97.3	.6	3.5a	1.9		None	
SBR60-2612	29.0-31.3	65983	1.0	1.0	97.1	.9	2.5a	2.4		None	
SBR60-2613	31.3-33.3	65984	.9	2.0	96.6	.5	2.3a	4.8		None	
SBR60-2614	33.3-34.3	65985	1.6	.4	97.0	1.0	4.2a	1.1		None	
SBR60-2615	34.3-35.6	65986	2.6	1.5	94.7	1.2	6.9	3.6	.918	None	
SBR60-2616	35.6-37.7	65987	.8	.5	98.1	.6	2.1a	1.2		None	
SBR60-2617	37.7-39.7	65988	.7	.7	97.9	.7	1.8a	1.7		None	
SBR60-2618	39.7-41.0	65989	1.5	.8	97.1	.6	4.0a	1.9		None	
SBR60-2619	41.0-42.0	65990	1.8	.7	96.7	.8	4.8a	1.7		None	
SBR60-2620	42.0-43.2	65991	8.5	.9	88.9	1.7	22.1	2.0	.926	None	
SBR60-2621	43.2-44.6	65992	2.9	.7	95.3	1.1	7.3	1.8	.937	None	
SBR60-2622	44.6-50.8	65993	.1	1.4	98.2	.3	.2a	3.5		None	
SBR60-2623	50.8-53.3	65994	1.0	.8	97.4	.8	2.6a	1.9		None	
SBR60-2624	53.3-55.3	65995	1.0	.3	98.0	.7	2.5a	.8		None	
SBR60-2625	55.3-56.8	65996	1.4	.4	97.7	.5	3.7a	1.0		None	
SBR60-2626	56.8-58.0	65997	1.7	.7	97.0	.6	4.4a	1.7		None	
SBR60-2627	58.0-59.4	65998	1.5	.6	97.3	.6	3.9a	1.6		None	
SBR60-2628	59.4-61.0	65999	1.0	.3	98.3	.4	2.7a	.7		None	
SBR60-2629	61.0-62.0	66000	2.0	.5	96.9	.6	5.1a	1.2		None	
SBR60-2630	62.0-63.0	66001	3.2	.4	95.4	1.0	8.3	.8	.936	None	
SBR60-2631	63.0-64.5	66002	2.2	.5	96.2	1.1	5.7	1.2	.934	None	
SBR60-2632	64.5-66.0	66003	2.5	.3	96.2	1.0	6.4	.8	.928	None	
SBR60-2633	66.0-67.0	66004	2.7	.1	95.7	1.5	7.0	.4	.927	None	
SBR60-2634	67.0-69.2	66005	2.1	.3	96.7	.9	5.4	.8	.926	None	
SBR60-2635	69.2-70.0	66006	9.5	.8	87.4	2.3	24.7	1.8	.922	Slight	
SBR60-2636	70.0-71.1	66007	3.8	.3	94.9	1.0	9.5	.7	.915	None	

a - Specific gravity estimated due to insufficient oil.

Core samples received December 2, 1959; Assays made on air-dried samples.

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Skyline-Robertson core hole No. 4, drilled 320 feet south of North line,  
1630 feet West of East line, Sec. 22, T. 11 S., R. 25 E., Uintah County, Utah

Surface Elevation 6143.7 feet

Mahogany marker at 367.4 feet

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60° F.		Properties of spent shale		Remarks
Laramie	Their		Weight percent		Spent Shale	Gas + Loss	Gal. per ton		Tendency to	color	
		Oil	Water	Oil			Water				
SBR60-2637	71.1-73.1	66008	2.4	0.4	96.3	0.9	6.2	0.8	0.932	None	
SBR60-2638	73.1-74.4	66009	2.4	.7	96.0	.9	6.1	1.8	.925	None	
SBR60-2639	74.4-75.8	66010	2.1	1.1	96.0	.8	5.4a	2.6		None	
SBR60-2640	75.8-77.4	66011	.9	.7	97.6	.8	2.3a	1.7		None	
SBR60-2641	77.4-79.4	66012	1.0	.6	97.6	.8	2.5a	1.6		None	
SBR60-2642	79.4-80.7	66013	2.7	.6	96.0	.7	6.8	1.4	.944	None	
SBR60-2643	80.7-81.7	66014	2.5	.4	96.2	.9	6.3	1.0	.942	None	
SBR60-2644	81.7-82.4	66015	.9	.4	98.0	.7	2.4a	1.0		None	
SBR60-2645	82.4-83.7	66016	4.0	.4	94.3	1.3	10.3	1.0	.942	None	
SBR60-2646	83.7-84.2	66017	2.1	.2	97.1	.6	5.4	.5	.919	None	
SBR60-2647	84.2-85.7	66018	3.8	.7	94.3	1.2	9.6	1.7	.942	None	
SBR60-2648	85.7-87.0	66019	3.8	.4	94.5	1.3	9.8	.8	.940	None	
SBR60-2649	87.0-88.5	66020	3.9	.5	94.5	1.1	10.0	1.1	.938	None	
SBR60-2650	88.5-89.7	66021	4.2	.7	93.9	1.2	10.9	1.7	.930	None	
SBR60-2651	89.7-90.0	66022	4.4	.5	94.1	1.0	11.2	1.2	.937	None	
SBR60-2652	90.0-92.0	66023	3.6	.2	95.2	1.0	9.2	.5	.944	None	
SBR60-2653	92.0-94.0	66024	2.8	.2	96.3	.7	7.2	.5	.930	None	
SBR60-2654	94.0-96.0	66025	2.9	.2	96.1	.8	7.4	.6	.933	None	
SBR60-2655	96.0-97.0	66026	3.5	.4	95.0	1.1	9.0	.8	.940	None	
SBR60-2656	97.0-98.0	66027	5.4	.3	92.9	1.4	13.8	.8	.935	None	
SBR60-2657	98.0-100.0	66028	5.0	.3	93.4	1.3	12.8	.8	.933	None	
SBR60-2658	100.0-101.2	66029	3.5	.3	95.5	.7	9.0	.7	.934	None	
SBR60-2659	101.2-102.6	66030	1.4	.1	97.8	.7	3.6a	.2		None	
SBR60-2660	102.6-104.5	66031	2.7	.3	96.1	.9	7.1	.6	.926	None	
SBR60-2661	104.5-106.0	66032	3.5	.3	95.3	.9	8.9	.7	.933	None	
SBR60-2662	106.0-107.1	66033	3.7	.3	95.1	.9	9.5	.7	.934	None	
SBR60-2663	107.1-109.1	66034	4.3	.3	94.2	1.2	10.9	.8	.938	None	
SBR60-2664	109.1-110.0	66035	4.2	.3	94.3	1.2	10.8	.6	.933	None	
SBR60-2665	110.0-112.0	66036	3.9	.2	94.7	1.2	10.0	.5	.933	None	
SBR60-2666	112.0-114.0	66037	3.8	.3	95.0	.9	9.8	.7	.936	None	

a - Specific gravity estimated due to insufficient oil.

Core samples received December 2, 1959; Assays made on air-dried samples

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Skyline-Robertson core hole No. 4, drilled 320 feet south of North line, 1630 feet West of East line, Sec. 22, T. 11 S., R. 25 E., Uintah County, Utah

Surface elevation 6143.7 feet

Surface elevation 6143.7 feet			Yield of product						Mahogany marker at 367.4 feet			
Sample number		Run No.	Weight percent		Gal. per ton		Specific gravity of oil at 60°/60° V.	Properties of spent shale		Remarks		
Laramie	Thair		Oil	Water	Spent Shale	Gas + Loss		Oil	Water		Tendency to coke	
SBR60-2667	114.0-116.0	66038	3.8	0.3	95.2	0.7	9.6	0.8	.932	None		
SBR60-2668	116.0-118.0	66039	3.8	.2	95.2	.8	9.8	.4	.941	None		
SBR60-2669	118.0-120.0	66040	4.3	.3	94.6	.8	10.9	.7	.936	None		
SBR60-2670	120.0-122.0	66041	3.3	.4	95.7	.6	8.5	.8	.931	None		
SBR60-2671	122.0-124.0	66042	3.7	.5	95.1	.7	9.6	1.1	.933	None		
SBR60-2672	124.0-125.0	66043	3.0	.3	95.8	.9	7.8	.7	.934	None		
SBR60-2673	125.0-127.0	66044	5.1	.5	93.4	1.0	13.1	1.2	.933	None		
SBR60-2674	127.0-128.8	66045	2.8	.4	96.2	.6	7.3	.8	.932	None		
SBR60-2675	128.8-130.0	66046	2.0	.4	97.0	.6	5.1a	1.0		None		
SBR60-2676	130.0-132.0	66047	3.9	.4	94.8	.9	10.0	1.0	.938	None		
SBR60-2677	132.0-134.0	66048	4.0	.3	94.9	.8	10.2	.8	.936	None		
SBR60-2678	134.0-136.0	66049	2.6	.4	96.6	.4	6.6	1.0	.930	None		
SBR60-2679	136.0-137.5	66050	2.7	.5	96.1	.7	7.0	1.1	.933	None		
SBR60-2680	137.5-139.0	66051	2.5	.4	96.2	.9	6.4	.8	.932	None		
SBR60-2681	139.0-139.9	66052	3.6	.3	95.3	.8	9.2	.7	.934	None		
SBR60-2682	139.9-140.6	66053	8.6	.5	89.0	1.9	22.2	1.2	.932	Slight		
SBR60-2683	140.6-142.4	66054	2.8	.6	95.4	1.2	7.3	1.3	.938	None		
SBR60-2684	142.4-144.6	66055	2.4	.5	96.2	.9	6.1	1.2	.938	None		
SBR60-2685	144.6-146.0	66056	2.4	.6	96.0	1.0	6.2	1.6	.929	None		
SBR60-2686	146.0-148.0	66057	2.2	.7	96.1	1.0	5.7	1.6	.931	None		
SBR60-2687	148.0-150.0	66058	2.3	.7	96.0	1.0	5.9	1.8	.931	None		
SBR60-2688	150.0-152.0	66059	2.5	.7	95.5	1.3	6.3	1.8	.935	None		
SBR60-2689	152.0-154.0	66060	2.4	.7	95.9	1.0	6.3	1.6	.932	None		
SBR60-2690	154.0-156.0	66061	1.9	.8	96.9	.4	4.8a	1.9		None		
SBR60-2691	156.0-157.5	66062	2.8	.7	95.4	1.1	7.3	1.7	.932	None		
SBR60-2692	157.5-158.1	66063	8.4	.7	89.0	1.9	21.5	1.7	.932	None		
SBR60-2693	158.1-160.0	66064	2.8	.9	95.2	1.1	7.3	2.0	.928	None		
SBR60-2694	160.0-162.0	66065	2.6	.9	95.4	1.1	6.6	2.2	.930	None		
SBR60-2695	162.0-163.7	66066	2.6	.8	95.5	1.1	6.7	1.8	.925	None		
SBR60-2696	163.7-165.0	66067	7.7	.9	89.4	2.0	19.8	2.3	.926	None		

a - Specific gravity estimated due to insufficient oil.

Core samples received December 2, 1959; Assays made on air-dried samples.

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Skyline-Robertson Corehole No. 4, drilled 380 feet South of North line,  
1630 feet West of East line, sec. 22, T. 11 S., R. 25 E., Uintah County, Utah

Surface elevation 8145.7 feet

Mahogany marker at 367.4 feet

Sample number		Run No.	Yield of product				Gal. per ton		Specific gravity of oil at 60°/60° F.	Properties of spent shale		Remarks
			Weight percent		Spent shale	Gas + loss				Tendency to		
Laramie	Thair		Oil	Water					Oil	Water		coke
SBR60-2697	168.0-168.0	66068	4.1	1.0	93.8	1.1	10.4	2.4	.942	None		
SBR60-2698	168.0-168.0	66069	3.0	1.5	94.8	.7	7.7	3.6	.944	None		
SBR60-2699	168.0-170.0	66070	2.7	1.5	95.3	.5	6.8	3.7	.940	None		
SBR60-2700	170.0-172.0	66071	4.3	.6	94.4	.7	11.0	1.4	.948	None		
SBR60-2701	172.0-174.0	66072	2.3	1.5	96.0	.2	5.8	3.6	.932	None		
SBR60-2702	174.0-176.6	66073	2.7	1.3	95.5	.5	7.1	3.1	.928	None		
SBR60-2703	176.6-178.0	66074	5.7	.8	91.8	1.7	14.5	1.9	.936	None		
SBR60-2704	178.0-180.0	66075	3.2	1.2	95.1	.5	8.3	2.9	.934	None		
SBR60-2705	180.0-182.0	66076	2.4	1.2	95.6	.8	6.3	2.9	.937	None		
SBR60-2706	182.0-184.0	66077	3.6	.7	94.9	.8	9.3	1.6	.933	None		
SBR60-2707	184.0-186.0	66078	4.4	.6	94.0	1.0	11.2	1.6	.930	None		
SBR60-2708	186.0-188.0	66079	3.8	.8	94.3	1.1	9.8	1.8	.930	None		
SBR60-2709	188.0-190.0	66080	2.3	1.0	96.1	.6	5.8	2.4	.924	None		
SBR60-2710	190.0-191.0	66081	10.1	1.3	86.3	2.3	26.0	3.0	.931	None		
SBR60-2711	191.0-192.0	66082	4.1	.7	94.0	1.2	10.3	1.8	.942	None		
SBR60-2712	192.0-194.0	66083	2.6	.8	95.7	.9	6.7	1.8	.935	None		
SBR60-2713	194.0-196.0	66084	3.4	1.0	94.1	1.5	8.7	2.3	.934	None		
SBR60-2714	196.0-198.0	66085	5.2	1.0	92.7	1.1	13.2	2.4	.935	None		
SBR60-2715	198.0-200.0	66086	2.9	1.2	94.9	1.0	7.4	2.9	.932	None		
SBR60-2716	200.0-202.1	66087	6.7	.8	90.6	1.9	17.4	1.9	.931	None		
SBR60-2717	202.1-204.0	66088	3.6	.9	94.3	1.2	9.2	2.0	.938	None		
SBR60-2718	204.0-206.0	66089	3.4	.8	94.6	1.2	8.7	1.8	.938	None		
SBR60-2719	206.0-208.0	66090	4.5	.7	93.4	1.4	11.4	1.8	.942	None		
SBR60-2720	208.0-210.0	66091	6.0	1.0	91.1	1.9	15.4	2.4	.927	None		
SBR60-2721	210.0-212.0	66092	4.7	1.0	92.8	1.5	11.9	2.4	.939	None		
SBR60-2722	212.0-214.0	66093	4.9	.5	93.5	1.1	12.5	1.2	.936	None		
SBR60-2723	214.0-216.0	66094	5.0	.5	93.0	1.5	12.7	1.2	.936	None		
SBR60-2724	216.0-218.0	66095	5.0	.6	92.9	1.5	12.9	1.4	.932	None		
SBR60-2725	218.0-220.0	66096	4.3	1.6	92.7	1.4	11.3	3.8	.920	None		
SBR60-2726	220.0-222.0	66097	5.1	1.0	92.2	1.7	13.3	2.4	.917	None		

Core samples received December 2, 1959; assays made on air-dried samples.

## OIL-SHALE ASSAYS BY MODIFIED FISCHER PETROST METHOD

Samples from Skyline Oil Company's Skyline-Robertson Corehole No. 4, drilled 320 feet South of North line,  
1630 feet West of East line, sec. 22, T. 11 S., R. 25 E., Uintah County, Utah

Surface elevation 6143.7 feet

Mahogany marker at 367.4 feet

Sample number		Run No.	Yield of product				Specific gravity				Properties of spent shale				Remarks	
			Weight percent		Spent shale	Gas + loss	Gal. per ton		of oil at 60°/60° F.	Tendency to coke	FXS					
Laramie	Ther		Oil	Water							Oil	Water				
SBR60-2727	222.0-224.0	66098	4.7	0.9	92.8	1.8	12.2	2.0	2.2	2.44	0.926	4.88	None	59.54	4.88	59.54
SBR60-2728	224.0-226.0	66099	5.1	.9	92.0	2.0	13.1	2.0	2.3	2.42	.925	4.84	None	63.40	9.72	122.94
SBR60-2729	226.0-228.0	66100	5.8	.8	91.8	1.6	15.0	2.0	2.0	2.38	.924	4.76	None	71.40	14.48	194.24
SBR60-2730	228.0-229.0	66101	5.4	1.2	91.2	2.2	14.1	1.0	2.9	2.40	.922	2.40	None	33.84	16.88	228.18
SBR60-2731	229.0-230.0	66102	9.8	1.1	86.8	2.3	25.4	1.0	2.6	2.21	.923	2.21	None	56.13	19.09	284.31
SBR60-2732	230.0-231.0	66103	7.5	1.2	89.4	1.9	19.6	1.0	2.9	2.30	.916	2.30	None	45.08	21.39	329.39
SBR60-2733	231.0-233.0	66104	7.2	1.1	90.0	1.7	18.8	2.0	2.6	2.31	.915	4.62	None	86.86	26.01	416.25
SBR60-2734	233.0-235.0	66105	4.1	1.2	93.1	1.6	10.8	2.0	2.8	2.46	.919	4.92	None	53.14	30.93	469.39
SBR60-2735	235.0-237.0	66106	4.6	1.1	93.0	1.3	12.1	2.0	2.6	2.44	.920	4.88	None	59.05	35.81	528.44
SBR60-2736	237.0-239.0	66107	3.0	1.5	94.7	.8	7.7	2.0	3.6	2.52	.921	5.04	None	38.81	40.85	567.25
SBR60-2737	239.0-240.2	66108	3.4	1.0	94.6	1.0	8.8	1.2	2.8	2.50	.920	3.00	None	26.40	43.85	593.65
SBR60-2738	240.2-241.2	66109	8.2	1.2	88.4	2.2	21.2	1.0	3.0	2.28	.922	2.28	None	48.34	46.13	641.99
SBR60-2739	241.2-243.2	66110	3.8	1.7	93.5	1.0	9.9	2.0	4.2	2.40	.924	4.96	None	49.10	51.09	691.09
SBR60-2740	243.2-244.4	66111	2.9	1.0	95.3	.8	7.4	1.2	2.8	2.53	.922	3.04	None	22.50	54.13	713.59
SBR60-2741	244.4-246.0	66112	5.0	1.1	92.6	1.3	13.0	1.6	2.6	2.42	.923	3.87	None	50.31	58.00	763.90
SBR60-2742	246.0-248.0	66113	2.0	1.6	95.0	1.4	5.3	2.0	3.6	2.52	.920	5.16	None	27.35	63.16	791.25
SBR60-2743	248.0-250.0	66114	2.8	1.8	94.4	1.0	7.4	2.0	4.2	2.53	.922	5.06	None	37.44	68.22	828.69
SBR60-2744	250.0-251.0	66115	2.6	1.2	95.5	.7	6.6	1.0	2.9	2.55	.920	2.55	None	16.23	70.77	845.52
SBR60-2745	251.0-252.0	66116	6.9	1.4	90.2	1.5	12.0	1.0	3.2	2.33	.922	2.33	None	41.94	73.10	887.46
SBR60-2746	252.0-254.0	66117	3.0	1.9	94.0	1.1	7.7	2.0	4.7	2.52	.922	5.04	None	38.81	78.14	926.27
SBR60-2747	254.0-256.0	66118	3.3	1.4	94.1	1.2	8.8	2.0	3.5	2.50	.922	5.00	None	42.50	83.14	968.77
SBR60-2748	256.0-257.5	66119	2.5	1.7	94.8	1.0	6.8	1.5	4.1	2.55	.922	5.10	None	35.15	88.24	1003.92
SBR60-2749	257.5-258.5	66120	7.8	1.3	88.7	2.2	20.4	1.0	3.1	2.29	.923	2.29	None	46.72	90.53	1050.44
SBR60-2750	258.5-260.0	66121	3.2	1.6	94.1	1.1	8.2	1.5	3.8	2.52	.924	2.78	None	31.00	94.31	1081.64
SBR60-2751	260.0-262.7	66122	2.8	1.4	94.7	1.1	7.2	2.7	3.4	2.54	.924	6.96	None	49.39	101.17	1131.03
SBR60-2752	262.7-263.4	66123	9.9	1.5	86.1	2.5	25.4	0.7	3.6	2.21	.932	1.55	None	39.37	102.72	1170.40
SBR60-2753	263.4-264.7	66124	4.4	.9	93.5	1.2	11.3	1.3	2.2	2.45	.930	3.19	None	36.05	105.91	1206.45
SBR60-2754	264.7-266.7	66129	3.2	1.1	94.3	1.4	8.2	2.0	2.8	2.52	.925	5.04	None	41.33	110.95	1247.78
SBR60-2755	266.7-267.9	66130	4.4	1.5	92.9	1.2	11.4	1.2	3.6	2.45	.925	2.94	None	33.52	113.89	1281.70
SBR60-2756	267.9-268.7	66131	14.4	1.4	80.4	3.8	37.2	0.8	3.6	2.05	.924	1.64	light	61.01	115.53	1342.31

Core samples received December 2, 1959; assays made on air-dried samples.

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Skyline-Robertson Corehole No. 4, drilled 320 feet South of North line,  
1630 feet West of East line, sec. 22, T. 11 S., R. 25 E., Uintah County, Utah

Surface elevation 6143.7 feet

Mahogany marker at 367.4 feet

Sample number		Run No.	Yield of product				Specific gravity		Properties of spent shale		Remarks	FXS	FXSxg			
			Weight percent		Spent shale	Gas + loss	Gal. per ton		of oil at 60°/60° F.	Tendency to coke				FXSxg		
Laramie	Their		Oil	Water							Oil	Water				
SBR60-2757	268.7-270.0	66132	2.9	1.5	95.0	0.6	7.4	1.3	3.6	2.53	.938	3.29	None	24.35	118.82	1366.6
SBR60-2758	270.0-272.0	66133	2.4	1.7	95.1	.8	6.1	2.0	4.1	2.56	.936	5.12	None	31.23	123.94	
SBR60-2759	272.0-274.0	66134	3.6	1.5	93.8	1.1	9.2	2.0	3.6	2.49	.933	4.98	None	45.87	128.92	
SBR60-2760	274.0-276.0	66135	4.5	1.7	92.8	1.0	11.5	2.0	4.1	2.45	.928	4.90	None	56.35	133.82	
SBR60-2761	276.0-278.0	66136	4.0	1.4	93.8	.8	10.2	2.0	3.4	2.48	.930	4.96	None	50.59	138.78	
SBR60-2762	278.0-278.9	66137	10.6	1.6	85.4	2.4	27.5	0.9	3.8	2.12	.925	8.96	None	53.90	140.74	
SBR60-2763	278.9-280.5	66138	3.5	1.1	94.4	1.0	9.0	1.6	2.6	2.50	.926	4.00	None	36.00	144.74	
SBR60-2764	280.5-282.0	66139	.9	1.2	97.3	.6	2.4	1.5	2.9	2.45		3.98	None	9.55	148.72	
SBR60-2765	282.0-283.0	66140	3.1	1.2	94.9	.8	8.0	1.0	2.9	2.52	.932	2.52	None	20.16	151.24	
SBR60-2766	283.0-284.0	66141	6.8	1.0	90.8	1.4	17.7	1.0	2.3	2.33	.925	2.33	None	41.24	153.57	
SBR60-2767	284.0-285.0	66142	4.0	1.0	94.0	1.0	10.3	1.0	2.4	2.48	.925	2.48	None	25.54	156.05	
SBR60-2768	285.0-286.0	66143	4.1	1.4	93.7	.8	10.7	1.0	3.4	2.46	.925	2.46	None	26.32	158.51	
SBR60-2769	286.0-287.8	66144	4.0	1.2	93.7	1.1	10.3	1.8	2.9	2.48	.931	4.46	None	45.94	162.97	
SBR60-2770	287.8-288.7	66145	3.0	3.0	93.2	.8	7.6	0.9	7.2	2.53	.931	2.28	None	17.33	165.25	
SBR60-2771	288.7-290.0	66146	4.8	.6	93.2	1.4	12.3	1.3	1.4	2.43	.936	3.16	None	38.87	168.41	
SBR60-2772	290.0-292.0	66147	3.3	1.0	94.5	1.2	8.4	2.0	2.4	2.51	.935	5.02	None	42.17	173.43	
SBR60-2773	292.0-294.0	66148	3.8	.9	94.3	1.0	9.9	2.0	2.2	2.48	.935	4.96	None	49.10	178.39	
SBR60-2774	294.0-296.0	66149	4.3	1.6	93.0	1.1	11.1	2.0	3.8	2.46	.932	4.92	None	54.61	182.31	
SBR60-2775	296.0-298.0	66150	3.9	1.1	94.1	.9	10.0	2.0	2.6	2.48	.937	4.96	None	49.60	188.27	
SBR60-2776	298.0-300.0	66151	4.5	.9	93.8	.8	11.6	2.0	2.0	2.45	.932	4.90	None	56.84	193.17	
SBR60-2777	300.0-302.0	66152	3.9	.8	94.3	1.0	10.1	2.0	1.9	2.48	.930	4.96	None	50.10	198.13	
SBR60-2778	302.0-304.0	66153	4.5	.9	93.5	1.1	11.6	2.0	2.0	2.45	.932	4.90	None	56.84	203.03	
SBR60-2779	304.0-306.0	66154	3.8	1.2	94.1	.9	9.7	2.0	2.9	2.48	.931	4.96	None	49.11	207.99	
SBR60-2780	306.0-308.0	66155	4.3	1.1	93.3	1.3	11.1	2.0	2.6	2.46	.932	4.92	None	54.61	212.91	
SBR60-2781	308.0-310.0	66156	2.5	.9	96.0	.6	6.3	2.0	2.2	2.56	.929	5.12	None	32.26	218.03	
SBR60-2782	310.0-312.0	66157	4.5	.9	93.4	1.2	11.5	2.0	2.2	2.45	.930	4.90	None	56.35	222.93	
SBR60-2783	312.0-314.0	66158	3.7	1.1	94.5	.7	9.5	2.0	2.6	2.49	.932	4.98	None	47.31	227.91	
SBR60-2784	314.0-315.4	66159	5.2	1.0	92.5	1.3	13.5	1.4	2.4	2.41	.930	3.37	None	45.50	231.28	
SBR60-2785	315.4-317.0	66160	.2	2.9	96.8	.1	.4	1.6	7.0	2.70		4.32	None	1.73	235.60	
SBR60-2786	317.0-318.0	66161	3.9	.9	94.2	1.0	10.0	1.0	2.2	2.48	.936	2.48	None	24.80	239.08	2535.43

a - Specific gravity estimated due to insufficient oil.

Core samples received December 2, 1959; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3218P April 18, 1960



## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Skyline-Robertson Corehole No. 4, drilled 320 feet South of North line,  
1630 feet West of East line, sec. 22, T. 11 S., R. 25 E., Uintah County, Utah

Surface elevation 6143.7 feet

Mahogany marker at 367.4 feet

			Yield of product				Specific gravity				Properties of spent shale				
Sample number		Run No.	Weight percent		Spent shale	Loss	Gal. per ton		of oil at		tendency to		FVS		
Larrie	Shelf		Oil	Water			Oil	Water	60°/60°F.	ftysg	color	x s x g	ft x s	ft x s	
SR60-2787	318.0-320.0	66162	5.2	0.4	93.4	1.0	13.4	2.0	1.1	2.41	.932	4.8	None	64.59	242.90
SR60-2788	320.0-322.0	66163	5.0	.8	92.6	1.6	13.0	2.0	1.8	2.42	.934	4.84	None	62.92	247.74
SR60-2789	322.0-324.0	66164	3.0	.9	95.4	.7	7.8	2.0	2.0	2.52	.932	5.04	None	39.31	252.78
SR60-2790	324.0-326.0	66165	4.2	.8	94.0	1.0	10.8	2.0	1.8	2.46	.933	4.92	None	53.14	257.70
SR60-2791	326.0-328.0	66166	2.8	1.0	95.4	.8	7.2	2.0	2.1	2.54	.930	5.08	None	36.58	262.78
SR60-2792	328.0-330.0	66167	3.1	.8	95.5	.6	8.1	2.0	1.8	2.52	.925	5.04	None	40.82	267.82
SR60-2793	330.0-332.0	66168	4.8	.6	93.6	1.0	12.5	2.0	1.4	2.43	.928	4.86	None	60.75	272.68
SR60-2794	332.0-333.5	66169	4.2	.6	94.4	.8	11.0	1.5	1.4	2.46	.924	3.69	None	40.59	276.37
SR60-2795	333.5-334.3	66170	13.7	1.0	82.8	2.5	35.3	0.8	2.4	2.07	.931	1.66	Slight	58.60	278.03
SR60-2796	334.3-336.0	66171	4.8	.7	93.3	1.2	12.4	1.7	1.7	2.43	.928	4.13	None	51.21	282.16
SR60-2797	336.0-338.2	66172	5.6	.6	92.5	1.3	14.6	2.2	1.3	2.39	.925	5.26	None	76.80	287.42
SR60-2798	338.2-339.0	66173	11.4	1.0	84.9	2.7	29.4	0.8	2.4	2.15	.925	1.72	None	50.57	299.14
SR60-2799	339.0-340.0	66174	5.5	.6	92.2	1.7	14.3	1.0	1.6	2.40	.922	2.40	None	34.32	291.54
SR60-2800	340.0-342.0	66175	7.8	1.0	89.1	2.1	20.4	2.0	2.3	2.29	.917	4.58	None	92.43	296.12
SR60-2801	342.0-343.8	66176	2.1	.9	95.6	1.4	5.4	1.8	2.0	2.57	.934	4.63	None	25.00	300.25
SR60-2802	343.8-346.0	66177	1.9	.6	96.3	1.2	4.8	2.2	1.6	2.59		5.70	None	27.34	306.45
SR60-2803	346.0-348.0	66178	1.5	.7	96.4	1.4	4.0	2.0	1.6	2.61		5.22	None	20.89	311.67
SR60-2804	348.0-350.6	66179	1.1	.5	97.1	1.3	2.8	2.6	1.3	2.63		6.84	None	19.15	318.51
SR60-2805	250.6-352.8	66180	5.1	.9	92.9	1.1	13.3	2.2	2.2	2.42	.914	5.32	None	70.76	323.93
SR60-2806	352.8-354.0	66181	8.4	1.2	88.4	2.0	22.8	1.2	2.9	2.26	.913	2.66	None	58.82	326.49
SR60-2807	354.0-356.0	66182	5.2	1.1	92.6	1.1	13.5	2.0	2.6	2.41	.918	4.82	None	65.07	331.31
SR60-2808	356.0-357.0	66183	3.7	1.7	93.6	1.0	9.6	1.0	4.1	2.48	.921	2.48	None	23.81	333.79
SR60-2809	357.0-358.0	66184	8.8	1.6	88.1	1.5	22.8	1.0	3.8	2.25	.924	2.25	None	51.30	336.04
SR60-2810	358.0-359.0	66185	9.8	1.1	87.4	1.7	25.7	1.0	2.6	2.20	.913	2.20	None	56.54	338.24
SR60-2811	359.0-360.3	66186	9.3	.8	87.8	2.1	24.7	1.3	1.9	2.22	.907	2.89	None	71.38	341.13
SR60-2812	360.3-361.5	66187	16.6	1.2	79.5	2.7	43.8	1.2	2.9	1.96	.906	2.35	Slight	602.93	343.48
SR60-2813	361.5-364.0	66188	6.3	.9	91.3	1.5	16.4	2.5	2.2	2.35	.916	5.87	None	96.27	349.35
SR60-2814	364.0-366.0	66189	6.2	.7	91.5	1.6	16.0	2.0	1.7	2.36	.924	4.72	None	75.52	354.07
SR60-2815	366.0-367.4	66190	4.4	.7	93.2	1.7	11.5	1.4	1.6	2.45	.923	3.43	None	39.45	357.50
SR60-2816	367.4-367.9	66191	3.4	3.6	92.0	1.0	8.7	1.5	8.6	2.50	.927	1.25	None	10.88	358.75

a - Specific gravity estimated due to insufficient oil.

Core samples received December 2, 1959; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SR-3219P April 18, 1960

## OIL-SHALE ASSAYS BY MODIFIED FISCHER PORTERT METHOD

Samples from Skyline Oil Company's Skyline-Robertson Corehole No. 4, drilled 320 feet South of North line, 1630 feet West of East line, sec. 22, T. 11 S., R. 25 E., Uintah County, Utah

**Surface elevation 6143.7 feet**

**Mahogany marker at 367.4 feet**

Sample number		Run No.	Yield of product				Specific gravity			Properties of spent shale						
			Weight percent		Spent shale	Gas + loss	Gal. per ton		of oil at 60°/60° F.	Tendency to coke	Remarks	FXS	FXSxg			
Larocade	Their	Oil	Water	Oil			Water	S <sub>g</sub>						60°/60° F.	FXSxg	FXSxg
SR60-2817	367.9-370.5	66193	5.7	0.6	94.3	1.4	9.7	2.6	1.4	2.48	0.918	1.45	None	62.57	365.20	4176.45
SR60-2818	370.5-371.3	66193	5.0	.4	95.1	1.5	13.1	0.8	1.1	2.42	.909	1.94	None	25.41	367.14	4201.81
SR60-2819	371.3-372.4	66194	14.0	1.1	81.6	3.3	36.6	1.1	2.6	2.05	.914	2.26	None	82.72	369.40	4294.5
SR60-2820	372.4-374.0	66195	8.1	.5	89.0	2.4	21.5	1.6	1.2	2.27	.900	2.63	None	78.05	373.03	4362.6
SR60-2821	374.0-375.9	66196	6.6	.5	91.1	1.8	17.5	1.9	1.2	2.34	.915	4.45	None	76.99	377.48	4439.6
SR60-2822	375.9-377.4	66197	10.6	.6	86.7	2.1	28.0	1.5	1.4	2.17	.910	3.26	None	91.28	380.74	4530.9
SR60-2823	377.4-379.0	66198	20.9	1.2	73.6	4.3	55.0	1.6	2.9	1.83	.909	2.93	Medium	161.15	383.67	4692.02
SR60-2824	379.0-380.0	66199	23.4	1.4	70.4	4.8	62.1	1.0	3.2	1.76	.903	1.76	Heavy	109.30	385.43	4801.35
SR60-2825	380.0-381.5	66200	24.7	1.3	68.9	5.1	68.1	1.8	3.1	1.73	.909	3.11	Heavy	202.46	388.54	5003.81
SR60-2826	381.5-382.5	66201	17.9	.8	77.3	4.0	47.5	0.7	2.0	1.92	.908	1.34	Slight	63.65	389.88	5068.46
SR60-2827	382.5-383.6	66202	19.2	1.3	75.8	3.7	49.8	1.1	3.1	1.89	.905	2.08	Slight	103.58	391.96	5171.04
SR60-2828	383.6-384.7	66203	7.7	.5	89.5	2.3	19.5	1.1	1.3	2.30	.930	2.53	None	50.09	394.49	5221.13
SR60-2829	384.7-386.3	66204	15.6	.7	80.9	2.8	40.6	1.6	1.7	2.00	.921	3.20	None	129.92	397.69	5351.05
SR60-2830	386.3-389.0	66205	7.3	.5	90.1	2.1	12.9	2.7	1.8	2.31	.921	6.24	None	117.94	403.93	5468.99
SR60-2831	389.0-391.0	66206	17.5	1.1	77.9	3.5	46.4	2.0	2.6	1.93	.907	3.86	Slight	179.10	407.79	5648.09
SR60-2832	391.0-392.0	66207	6.3	1.3	90.6	1.8	16.9	1.0	3.2	2.35	.891	2.35	None	39.72	410.14	5687.81
SR60-2833	392.0-393.0	66208	12.0	.9	84.4	2.7	31.5	1.0	2.3	2.12	.912	2.12	None	66.78	412.26	5754.59
SR60-2834	393.0-394.7	66209	6.0	.8	91.2	2.0	15.6	1.7	2.0	2.37	.917	4.03	None	62.87	416.29	5817.46
SR60-2835	394.7-395.3	66210	17.0	1.7	77.2	4.1	45.9	0.6	4.1	1.96	.906	1.18	Slight	51.80	417.47	5869.26
SR60-2836	395.3-396.0	66211	6.4	.9	90.5	2.2	16.8	0.7	2.0	2.35	.917	1.65	None	27.72	419.12	5896.98
SR60-2837	396.0-397.0	66212	8.6	1.0	88.6	1.8	22.3	1.0	2.4	2.26	.924	2.26	None	50.40	421.39	5947.38
SR60-2838	397.0-398.0	66213	3.2	.9	94.6	1.3	8.2	1.0	2.3	2.52	.927	2.52	None	20.66	423.90	5968.04
SR60-2839	398.0-400.0	66214	5.0	.6	93.0	1.4	12.9	2.0	1.4	2.42	.922	4.84	None	62.44	426.74	6030.48
SR60-2840	400.0-401.3	66215	14.1	1.0	82.6	2.3	37.1	1.3	2.4	2.05	.910	2.66	Slight	98.69	431.40	6129.17
SR60-2841	401.3-403.0	66236	9.3	.6	83.6	1.5	24.9	1.7	1.6	2.22	.893	3.77	None	93.87	435.17	6223.84
SR60-2842	403.0-404.0	66237	14.6	1.1	81.2	3.1	39.0	1.0	2.6	2.02	.897	2.02	Slight	78.78	437.19	6301.82
SR60-2843	404.0-405.0	66238	7.9	1.0	89.6	1.5	21.0	1.0	2.4	2.28	.901	2.28	None	47.88	439.47	6349.70
SR60-2844	405.0-406.4	66239	6.9	.9	90.7	1.5	18.2	1.4	2.0	2.33	.911	3.06	Slight	59.33	442.73	6409.03
SR60-2845	406.4-407.5	66220	5.5	.7	92.4	1.4	14.1	1.2	1.8	2.40	.908	2.88	None	40.61	445.61	6449.67
SR60-2846	407.6-410.5	66221	2.3	.7	96.1	.9	6.0	2.9	1.7	2.56	.929	7.42	None	44.52	453.03	6494.16

Core samples received December 8, 1958; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SPR-3220P

April 18, 1960



## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Skyline-Robertson Corehole No. 4, drilled 380 feet South of North line,  
1630 feet West of East line, sec. 22, T. 11 S., R. 25 E., Uintah County, Utah

Surface elevation 6143.7 feet

Mahogany marker at 367.4 feet

Sample number		Run No.	Yield of Product				Specific gravity			Properties of spent shale			Remarks			
			Weight percent		Spent shale	Gas + loss	Gal. per ton		of oil at 560°/60° F.	FXSG	coke	FXSG				
Laramie	Their	Oil	Water	Oil			Water	Oil					Water	FXSG	FXSG	FXSG
SRR60-2847	418.8-419.0	66222	8.4	0.7	92.8	1.1	14.2	1.5	1.7	2.40	0.918	3.60	None	51.12	456.63	6545.23
SRR60-2848	419.0-419.2	66223	3.7	1.8	93.6	1.1	9.8	1.2	4.0	2.49	0.921	2.99	None	28.41	459.62	6573.69
SRR60-2849	419.2-419.4	66224	8.9	.7	88.3	2.1	23.2	1.4	1.7	2.24	0.923	3.14	None	72.85	462.76	6646.54
SRR60-2850	419.4-419.6	66225	3.0	.4	95.1	1.5	7.8	1.6	1.1	2.52	0.919	4.03	None	31.43	466.79	6677.97
SRR60-2851	419.6-419.8	66226	9.6	1.0	87.1	2.3	24.8	1.7	2.4	2.22	0.923	2.66	None	65.97	469.45	6743.94
SRR60-2852	419.8-420.0	66227	8.8	.6	95.5	1.1	7.1	2.4	1.4	2.54	0.932	6.10	None	43.31	475.55	6787.25
SRR60-2853	420.0-420.2	66228	6.8	.6	90.8	1.8	17.6	0.9	1.4	2.34	0.930	2.11	None	37.14	477.66	6824.39
SRR60-2854	420.2-420.4	66229	4.8	3.4	91.3	.8	11.8	1.5	8.1	2.45	0.930	3.67	None	42.21	481.23	6866.60
SRR60-2855	420.4-420.6	66230	5.4	1.0	92.2	1.4	14.1	1.8	2.3	2.40	0.923	4.32	None	60.91	485.65	6927.51
SRR60-2856	420.6-420.8	66231	8.2	.8	91.2	1.8	16.2	1.9	1.9	2.36	0.921	4.25	None	68.85	489.90	6996.36

478  
1.5  
2.9

Core samples received December 8, 1959; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SRR-3221P

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