

U-53

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A drilled in NE1/4NE1/4SW1/4
(2420 feet E/W 2215 feet N/S) of sec 5, T 11 S, R 25 E, Uintah County, Utah

Donnell
Blair
4/29/65
gkw
25

Surface elevation 5,532 feet

Surface elevation 5,552 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 coke		
Laramie	Their	Oil	Water	Oil 1/			Water	Oil 1/		Water	60°/60°F	
SBR64-7539	510.0-511.0	98547	2.5	0.9	95.9	0.7	6.4	2.0	0.936	None		
SBR64-7540	511.0-512.1	98548	3.5	.6	94.1	1.8	9.1	1.3	.932	None		
SBR64-7541	512.1-513.0	98549	1.5	.7	96.4	1.4	4.0a	1.6		None		
SBR64-7542	513.0-514.6	98550	3.5	1.1	93.4	2.0	9.0	2.6	.936	None		
SBR64-7543	514.6-515.8	98551	1.7	1.3	95.8	1.2	4.5a	3.1		None		
SBR64-7544	515.8-517.2	98552	1.3	.9	96.5	1.3	3.4a	2.2		None		
SBR64-7545	517.2-518.6	98553	2.9	1.6	94.6	.9	7.5	3.8	.916	None	Thin oil saturated tuff	
SBR64-7546	518.6-520.0	98554	1.1	1.4	96.5	1.0	2.9a	3.4		None		
SBR64-7547	520.0-522.2	98555	.9	.8	96.8	1.5	2.4a	1.9		None		
SBR64-7548	522.2-523.3	98556	2.6	1.4	95.3	.7	6.9	3.4	.919	None	Thin oil saturated tuff	
SBR64-7549	523.3-525.6	98557	1.4	.8	96.8	1.0	3.5a	2.0		None		
SBR64-7550	525.6-526.8	98558	1.2	1.2	96.6	1.0	3.2a	2.9		None		
SBR64-7551	526.8-528.0	98559	2.2	.6	96.5	.7	5.7	1.4	.934	None		
SBR64-7552	528.0-528.8	98560	3.6	.5	95.4	.5	9.5	1.2	.901	None	Oil saturated tuff	
SBR64-7553	528.8-529.5	98561	1.7	.3	97.7	.3	4.5a	.7		None		
SBR64-7554	529.5-531.5	98562	.6	.2	99.0	.2	1.4a	.6		None		
SBR64-7555	531.5-534.0	98563	.5	.6	98.7	.2	1.4a	1.4		None		
SBR64-7556	534.0-536.0	98564	.5	.7	98.0	.8	1.3a	1.8		None		
SBR64-7557	536.0-537.2	98565	1.9	1.2	96.8	.1	5.0a	2.9		None		
SBR64-7558	537.2-538.2	98566	.9	.5	97.4	1.2	2.3a	1.3		None		
SBR64-7559	538.2-539.5	98567	.5	.5	98.2	.8	1.4a	1.2		None		
SBR64-7560	539.5-540.6	98568	2.4	.4	95.8	1.4	6.3	.8	.931	None		
SBR64-7561	540.6-541.6	98569	1.8	.5	96.6	1.1	4.6a	1.3		None		
SBR64-7562	541.6-542.6	98570	.6	.2	98.1	1.1	1.5a	.6		None		
SBR64-7563	542.6-543.6	98571	1.7	.8	96.4	1.1	4.3a	1.9		None		
SBR64-7564	543.6-544.6	98572	5.6	.2	92.8	1.4	14.4	.5	.927	None		
SBR64-7565	544.6-545.5	98573	8.1	.6	89.5	1.8	20.8	1.6	.926	None		
SBR64-7566	545.5-546.5	98574	15.1	1.0	81.0	2.9	39.4	2.4	.922	Slight		
SBR64-7567	546.5-548.1	98575	3.8	.4	94.8	1.0	9.8	1.0	.925	None		
SBR64-7568	548.1-549.5	98576	4.6	.6	93.5	1.3	12.1	1.4	.917	None		

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3845P, Sheet No. 1 of 16 sheets

August 17, 1964

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 feet

Surface elevation 5,552 feet

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60°F		Properties of spent shale		Remarks
			Weight percent		Spent shale	Gas + loss			Gal per ton		
Laramie	Thair		Oil	Water					Oil ^{1/}	Water	
SBR64-7569	549.5-550.5	98577	15.5	1.4	80.0	3.1	40.8	3.5	0.908	Slight	
SBR64-7570	550.5-551.8	98578	7.6	.8	90.2	1.4	20.2	1.9	.905	None	
SBR64-7571	551.8-552.6	98579	3.4	1.7	93.8	1.1	8.7	4.1	.940	None	
SBR64-7572	552.6-553.5	98580	3.3	.4	95.3	1.0	8.5	1.1	.920	None	
SBR64-7573	553.5-554.8	98581	3.6	.7	94.4	1.3	9.3	1.7	.935	None	
SBR64-7574	554.8-555.9	98582	6.7	.4	91.2	1.7	17.5	1.1	.915	None	
SBR64-7575	555.9-556.9	98583	4.3	.5	94.0	1.2	11.3	1.1	.916	None	
SBR64-7576	556.9-558.2	98584	2.5	.4	94.5	2.6	6.4	1.0	.924	None	
SBR64-7577	558.2-559.7	98585	1.2	.8	97.1	.9	3.2a	1.8		None	
SBR64-7578	559.7-560.8	98586	1.9	.5	96.2	1.4	5.0a	1.2		None	
SBR64-7579	560.8-561.8	98587	3.9	1.2	93.8	1.1	10.1	2.9	.929	None	
SBR64-7580	561.8-562.8	98588	4.2	.6	93.6	1.6	10.8	1.4	.921	None	
SBR64-7581	562.8-563.8	98589	2.9	.8	95.7	.6	7.6	1.8	.921	None	
SBR64-7582	563.8-564.8	98590	3.9	.5	94.6	1.0	10.1	1.2	.928	None	
SBR64-7583	564.8-565.8	98591	6.2	.7	91.5	1.6	16.1	1.6	.926	None	
SBR64-7584	565.8-567.0	98592	4.5	.6	93.3	1.6	11.7	1.6	.917	None	
SBR64-7585	567.0-568.0	98593	2.2	.2	96.0	1.6	5.7	.6	.923	None	
SBR64-7586	568.0-569.5	98594	5.4	.4	93.4	.8	14.2	1.0	.904	None	
SBR64-7587	569.5-570.5	98595	3.6	.4	94.6	1.4	9.5	1.0	.900	None	
SBR64-7588	570.5-572.0	98596	2.8	.2	96.0	1.0	7.4	.5	.918	None	
SBR64-7589	572.0-573.4	98597	3.4	.8	94.8	1.0	8.8	1.8	.928	None	
SBR64-7590	573.4-574.4	98598	8.5	1.1	88.5	1.9	22.4	2.6	.913	None	
SBR64-7591	574.4-575.7	98599	3.3	.9	94.7	1.1	8.6	2.0	.921	None	
SBR64-7592	575.7-576.7	98600	2.3	.5	95.9	1.3	5.8	1.3	.930	None	
SBR64-7593	576.7-577.7	91832	3.7	.9	93.6	1.8	9.5	2.2	.937	None	
SBR64-7594	577.7-578.1	91714	7.0	1.5	89.9	1.6	18.4	3.6	.910	None	
SBR64-7595	578.1-578.6	91833	17.1	1.8	77.6	3.5	44.4	4.3	.923	Slight	
SBR64-7596	578.6-579.1	91834	15.3	1.9	79.7	3.1	39.6	4.6	.928	Slight	
SBR64-7597	579.1-579.9	91835	7.6	1.3	89.2	1.9	19.6	3.1	.928	None	
SBR64-7598	579.9-580.1	91715	11.1	1.3	85.5	2.1	29.2	3.1	.907	None	

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 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 coke	
			Oil	Water			Oil ^{1/}	Water			
Laramie	Thier										
SBR64-7599	580.1-580.9	91836	7.5	1.1	89.1	2.3	19.3	2.6	0.937	None	
SBR64-7600	580.9-581.9	91837	12.1	1.4	83.2	3.3	31.0	3.4	.935	None	
SBR64-7601	581.9-582.3	91716	16.9	1.6	78.6	2.9	43.8	3.8	.926	Slight	
SBR64-7602	582.3-583.2	91838	8.1	1.2	88.2	2.5	20.5	3.0	.942	None	
SBR64-7603	583.2-584.3	91839	1.8	1.3	95.8	1.1	4.8a	3.0		None	
SBR64-7604	584.3-585.9	91840	2.6	1.0	96.0	.4	6.8	2.4	.935	None	
SBR64-7605	585.9-587.2	91841	13.3	2.5	81.6	2.6	33.6	6.1	.948	None	
SBR64-7606	587.2-588.2	91842	4.1	2.0	92.4	1.5	10.6	4.9	.917	None	
SBR64-7607	588.2-589.0	91843	11.2	2.0	84.4	2.4	28.8	4.8	.934	None	
SBR64-7608	589.0-590.5	91844	4.4	1.8	92.1	1.7	11.6	4.2	.919	None	
SBR64-7609	590.5-591.3	91845	3.4	.8	94.2	1.6	8.7	1.9	.937	None	
SBR64-7610	591.3-592.7	91846	6.1	.9	90.9	2.1	15.6	2.2	.944	None	
SBR64-7611	592.7-594.0	91847	8.2	1.3	88.7	1.8	20.8	3.0	.946	None	
SBR64-7612	594.0-595.0	91848	.8	.7	97.4	1.1	2.1a	1.7		None	
SBR64-7613	595.0-596.0	91849	2.3	1.1	95.4	1.2	5.8	2.6	.940	None	
SBR64-7614	596.0-597.0	91850	1.7	.9	96.6	.8	4.3	2.0	.940	None	
SBR64-7615	597.0-598.2	91851	1.3	1.2	96.1	1.4	3.3	2.9	.941	None	
SBR64-7616	598.2-599.0	91852	9.3	1.8	86.7	2.2	23.6	4.2	.950	None	
SBR64-7617	599.0-599.5	91717	11.4	2.0	84.5	2.1	29.6	4.7	.927	Slight	
SBR64-7618	599.5-600.5	91853	9.1	2.0	86.4	2.5	23.2	4.7	.940	None	
SBR64-7619	600.5-601.7	91854	5.9	1.3	91.0	1.8	15.0	3.1	.938	None	
SBR64-7620	601.7-602.7	91855	10.8	1.9	84.8	2.5	27.7	4.6	.937	None	
SBR64-7621	602.7-603.7	91856	2.1	1.0	96.4	.5	5.4	2.4	.936	None	
SBR64-7622	603.7-604.7	91857	1.8	1.3	95.6	1.3	4.6	3.0	.947	None	
SBR64-7623	604.7-605.9	91858	1.3	.9	97.3	.5	3.3a	2.3		None	
SBR64-7624	605.9-607.0	91859	.6	1.5	97.3	.6	1.6a	3.6		None	2/ 607.0-624.3
SBR64-7625	6010 624.3-625.8	98601	.7	2.1	96.2	1.0	1.8a	5.0		None	
SBR64-7626	625.8-627.0	98602	1.2	1.0	96.7	1.1	3.1a	2.4		None	
SBR64-7627	627.0-630.6	98603	.7	1.0	97.5	.8	1.9a	2.4		None	
SBR64-7628	630.6-631.7	91860	2.3	1.0	96.0	.7	5.8	2.4	.941	None	

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 feet

Sample number		Run No.	Yield of product				Specific gravity		Properties of spent shale	Remarks	
Laramie	Their		Weight percent		Spent shale	Gas + loss	Gal per ton		Tendency to coke		
		Oil	Water	Oil ^{1/}			Water	of oil at 60°/60°F			
SBR64-7629	631.7-633.5	91861	7.9	1.8	87.8	2.5	20.1	4.3	.946	None	15.3 ft av. 16.5 gal
SBR64-7630	633.5-634.3	91862	5.6	2.1	90.2	2.1	14.3	4.9	.948	None	
SBR64-7631	634.3-635.6	91863	2.7	2.4	93.8	1.1	6.8	5.8	.945	None	
SBR64-7632	635.6-637.1	91864	1.9	.9	96.3	.9	4.8	2.2	.940	None	
SBR64-7633	637.1-638.0	91865	5.3	2.2	91.1	1.4	13.5	5.3	.944	None	
SBR64-7634	638.0-638.3	91718	10.0	4.2	83.9	1.9	25.9	10.1	.925	None	
SBR64-7635	638.3-639.7	91866	8.3	3.2	86.2	2.3	21.1	7.7	.939	None	
SBR64-7636	639.7-640.3	91719	5.7	3.5	89.7	1.1	14.8	8.4	.925	None	
SBR64-7637	640.3-641.1	91867	12.8	1.7	83.1	2.4	32.3	4.1	.946	None	
SBR64-7638	641.1-642.6	91868	1.4	.7	96.2	1.7	3.5a	1.8		None	
SBR64-7639	642.6-643.8	91869	9.3	2.7	86.1	1.9	24.0	6.5	.932	None	
SBR64-7640	643.8-644.6	91870	11.4	2.1	84.1	2.4	29.0	5.0	.945	None	
SBR64-7641	644.6-645.3	91871	15.4	2.4	79.3	2.9	38.9	5.8	.950	None	
SBR64-7642	645.3-646.0	91872	7.1	1.7	89.8	1.4	17.9	4.2	.947	None	
SBR64-7643	646.0-647.0	91873	2.9	1.2	95.0	.9	7.5	2.9	.939	None	
SBR64-7644	647.0-648.0	91874	2.3	.7	96.0	1.0	5.8	1.7	.948	None	
SBR64-7645	648.0-650.4	98604	2.2	2.1	95.1	.6	5.9	5.0	.915	None	2/ 650.7-656.0
SBR64-7646	650.4-650.7	91720	.8	3.5	95.0	.7	2.1a	8.4		None	
SBR64-7647	656.0-658.0	98605	1.7	2.2	95.5	.6	4.4a	5.3		None	
SBR64-7648	658.0-660.0	98606	.8	2.0	96.1	1.1	2.1a	4.8		None	
SBR64-7649	660.0-662.0	98607	1.3	2.6	95.5	.6	3.4a	6.2		None	
SBR64-7650	662.0-663.0	98608	2.0	2.7	94.6	.7	5.1a	6.5		None	
SBR64-7651	663.0-664.8	98609	1.0	1.4	97.2	.4	2.5a	3.4		None	
SBR64-7652	664.8-666.0	98610	1.7	2.6	94.8	.9	4.3a	6.2		None	
SBR64-7653	666.0-668.0	98611	.8	3.1	94.5	1.6	2.1a	7.4		None	
SBR64-7654	668.0-670.0	98612	1.4	3.2	94.0	1.4	3.8a	7.7		None	
SBR64-7655	670.0-672.0	98613	1.6	3.2	93.7	1.5	4.2a	7.7		None	
SBR64-7656	672.0-672.7	98614	3.2	3.1	92.0	1.7	8.4	7.4	.911	None	
SBR64-7657	672.7-673.9	98615	1.3	1.0	97.2	.5	3.4a	2.4		None	
SBR64-7658	673.9-675.0	98616	8.8	1.9	87.5	1.8	22.8	4.6	.919	None	

15.3 ft
air 16.5 gal

2/650.7-656.0

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3845P, Sheet No. 4 of 16 sheets

August 17, 1964

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 feet

Surface elevation 5,552 feet

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60°F		Properties of spent shale		Remarks
			Weight percent		Spent shale	Gas + loss			Gal per ton		
Laramie	Their		Oil	Water					Oil ^{1/}	Water	
SBR64-7659	675.0-676.0	98617	4.1	2.5	92.0	1.4	10.7	6.0	.909	None	
SBR64-7660	676.0-678.6	98618	4.7	2.6	91.2	1.5	12.2	6.2	.923	None	
SBR64-7661	678.6-680.7	98619	2.3	1.8	95.4	.5	5.9	4.3	.915	None	
SBR64-7662	680.7-681.3	98620	4.3	1.6	92.2	1.9	11.1	3.8	.925	None	
SBR64-7663	681.3-683.3	98621	1.2	1.3	96.6	.9	3.0a	3.1		None	
SBR64-7664	683.3-684.6	98622	2.6	1.5	94.4	1.5	6.8	3.6	.934	None	
SBR64-7665	684.6-685.6	98623	1.3	1.9	96.0	.8	3.4a	4.6		None	
SBR64-7666	685.6-687.5	98624	.5	1.5	95.6	2.4	1.2a	3.6		None	2/687.5-696.5
SBR64-7667	687.5-698.5	98625	.9	2.8	94.7	1.6	2.2a	6.7		None	
SBR64-7668	698.5-700.3	98626	1.5	2.8	93.7	2.0	3.9a	6.7		None	
SBR64-7669	700.3-702.1	98627	1.9	2.2	93.1	2.8	4.9a	5.3		None	
SBR64-7670	702.1-703.4	98628	4.5	2.6	90.8	2.1	11.7	6.2	.928	None	
SBR64-7671	703.4-704.8	98629	8.0	1.5	87.9	2.6	20.8	3.6	.921	None	
SBR64-7672	704.8-705.8	98630	4.0	1.2	93.1	1.7	10.5	2.9	.918	None	
SBR64-7673	705.8-706.6	98631	6.5	2.4	89.3	1.8	17.0	5.8	.912	None	
SBR64-7674	706.6-707.8	98632	5.8	2.9	89.5	1.8	15.2	7.0	.912	None	
SBR64-7675	707.8-708.9	98633	5.6	2.9	89.3	2.2	14.7	7.0	.914	None	
SBR64-7676	708.9-709.8	98634	3.7	2.5	91.8	2.0	9.6	6.0	.933	None	
SBR64-7677	709.8-710.6	98635	5.1	3.1	89.9	1.9	13.0	7.4	.934	None	
SBR64-7678	710.6-711.0	91721	5.1	3.3	89.7	1.9	13.1	7.9	.930	None	
SBR64-7679	711.0-711.4	91723	6.6	3.0	88.6	1.8	17.1	7.2	.927	None	
SBR64-7680	711.4-712.6	98636	6.4	2.4	88.6	2.6	16.6	5.8	.928	None	
SBR64-7681	712.6-713.6	98637	3.6	3.0	92.3	1.1	9.4	7.2	.925	None	
SBR64-7682	713.6-715.0	98638	4.3	2.0	90.7	3.0	11.3a	4.8		None	
SBR64-7683	715.0-717.0	98639	.4	.8	98.3	.5	.9a	1.9		None	
SBR64-7684	717.0-718.9	98640	1.2	.9	96.9	1.0	3.1a	2.2		None	
SBR64-7685	718.9-720.8	98641	3.1	1.3	94.6	1.0	8.1	3.1	.919	None	
SBR64-7686	720.8-722.0	98642	2.3	1.6	94.7	1.4	6.1	3.8	.913	None	
SBR64-7687	722.0-723.0	98643	1.1	.6	97.5	.8	3.0a	1.3		None	
SBR64-7688	723.0-724.0	98644	2.6	.9	95.4	1.1	6.9	2.2	.913	None	

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3845P, Sheet No. 5 of 16 sheets

August 17, 1964

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 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 coke		
			Laramie	Their			Oil	Water			Oil 1/	
SBR64-7689	724.0-725.0	98645	3.7	1.2	93.7	1.4	9.6	2.9	0.919	None		
SBR64-7690	725.0-726.3	98646	3.5	1.1	94.1	1.3	9.2	2.6	.916	None		
SBR64-7691	726.3-727.2	98647	2.1	1.3	95.4	1.2	5.4	3.1	.915	None		
SBR64-7692	727.2-727.8	98648	5.5	1.8	91.3	1.4	14.5	4.3	.909	None		
SBR64-7693	727.8-728.7	98649	3.4	2.0	93.7	.9	8.8	4.8	.917	None		
SBR64-7694	728.7-731.6	98650	1.2	.7	97.2	.9	3.2a	1.6		None		
SBR64-7695	731.6-733.6	98651	3.0	.7	95.1	1.2	7.9	1.6	.920	None		
SBR64-7696	733.6-734.7	98652	1.6	.9	96.2	1.3	4.2a	2.0		None		
SBR64-7697	734.7-739.0	98653	.3	.7	98.0	1.0	.8a	1.7		None		
SBR64-7698	739.0-740.4	98654	2.4	1.9	94.7	1.0	6.3	4.6	.925	None		
SBR64-7699	740.4-742.1	98655	2.0	1.8	95.3	.9	5.3	4.3	.912	None		
SBR64-7700	742.1-743.1	98656	3.5	1.5	93.3	1.7	9.3	3.6	.911	None		
SBR64-7701	743.1-744.1	98657	2.1	1.6	95.1	1.2	5.4	3.8	.916	None		
SBR64-7702	744.1-747.5	98658	.9	.4	97.8	.9	2.4a	1.0		None		
SBR64-7703	748.0-750.0	98659	.4	.3	98.9	.4	.9a	.8		None		
SBR64-7704	750.7-752.8	98660	1.7	.6	96.8	.9	4.3a	1.4		None		
SBR64-7705	752.8-753.7	98661	1.0	.5	97.8	.7	2.6a	1.3		None		
SBR64-7706	753.7-754.8	98662	3.5	.6	94.7	1.2	9.3	1.4	.905	None		
SBR64-7707	754.8-755.4	98663	1.2	.5	97.0	1.3	3.1a	1.3		None		
SBR64-7708	755.4-756.6	98664	2.8	.8	94.8	1.6	7.5	1.9	.911	None		
SBR64-7709	756.6-759.3	98665	.6	.3	98.2	.9	1.5a	.8		None		
SBR64-7710	759.3-760.8	98666	1.5	1.3	96.2	1.0	3.9a	3.1		None		
SBR64-7711	760.8-761.8	98667	1.7	.7	96.8	.8	4.5a	1.7		None		
SBR64-7712	761.8-763.6	98668	1.3	.3	97.5	.9	3.3a	.8		None		
SBR64-7713	763.6-765.0	98669	1.1	1.2	95.8	1.9	2.9a	2.9		None		
SBR64-7714	765.0-766.6	98670	.9	1.1	97.3	.7	2.4a	2.6		None		
SBR64-7715	766.6-767.6	98671	2.3	1.0	96.4	.3	6.2	2.4	.911	None		
SBR64-7716	767.6-768.4	98672	5.3	1.7	91.2	1.8	14.1	4.1	.907	None		
SBR64-7717	768.4-769.0	98673	3.3	2.3	93.8	.6	8.7	5.5	.902	None		
SBR64-7718	769.0-770.0	98674	1.9	1.9	94.4	1.8	4.8a	4.6		None		

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 feet

Surface elevation 3,552 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 coke		
			Oil	Water			Oil 1/	Water				
Laramie	Thair											
SBR64-7719	770.0-771.9	98675	1.0	2.5	95.7	0.8	2.5a	6.0		None		
SBR64-7720	771.9-773.9	98676	.8	1.6	96.4	1.2	2.2a	3.8		None		
SBR64-7721	773.9-776.4	98677	1.6	1.0	96.5	.9	4.1a	2.4		None		
SBR64-7722	776.4-777.1	98678	4.4	1.0	92.6	2.0	11.4	2.4	0.919	None		
SBR64-7723	777.1-779.1	98679	.7	1.0	97.6	.7	1.9a	2.3		None		
SBR64-7724	779.1-780.6	98680	1.6	1.7	96.1	.6	4.0a	4.1		None		
SBR64-7725	780.6-781.6	98681	1.3	1.3	97.0	.4	3.5a	3.1		None		
SBR64-7726	781.6-782.7	98682	1.2	2.2	96.3	.3	3.2a	5.3		None		
SBR64-7727	782.7-784.0	98683	1.7	1.4	96.3	.6	4.5a	3.4		None		
SBR64-7728	784.0-784.7	98684	2.2	.9	96.2	.7	5.8	2.2	.909	None		
SBR64-7729	784.7-785.3	98685	3.7	1.2	94.1	1.0	9.6	2.9	.910	None		
SBR64-7730	785.3-786.1	98686	6.1	2.2	90.1	1.6	16.0	5.3	.911	None		
SBR64-7731	786.1-787.1	98687	1.2	.9	97.4	.5	3.1a	2.2		None		
SBR64-7732	787.1-787.8	98688	2.0	2.2	94.8	1.0	5.2a	5.3		None		
SBR64-7733	787.8-788.5	98689	8.9	2.3	86.6	2.2	23.4	5.5	.907	None		
SBR64-7734	788.5-789.3	91722	10.3	3.6	84.1	2.0	27.2	8.6	.907	None		
SBR64-7735	789.3-791.9	98690	2.8	.9	95.3	1.0	7.3	2.2	.909	None		
SBR64-7736	791.9-792.9	98691	9.5	2.6	85.7	2.2	25.0	6.2	.907	None		
SBR64-7737	792.9-793.9	98692	3.1	.8	94.3	1.8	8.1	1.9	.919	None		
SBR64-7738	793.9-794.9	98693	7.4	2.0	87.8	2.8	19.1	4.8	.926	None		
SBR64-7739	794.9-796.4	98694	7.4	1.8	88.2	2.6	19.1	4.3	.925	None		
SBR64-7740	796.4-798.1	98695	6.3	2.0	89.4	2.3	16.3	4.8	.921	None		
SBR64-7741	798.1-798.8	98696	2.6	.3	95.6	1.5	6.9	.8	.894	None		
SBR64-7742	798.8-800.1	98697	3.5	2.2	93.0	1.3	9.3	5.3	.910	None		
SBR64-7743	800.1-802.0	98698	2.0	.7	96.7	.6	5.2a	1.6		None		
SBR64-7744	802.0-803.0	98699	5.0	.5	92.5	2.0	13.1	1.1	.915	None		
SBR64-7745	803.0-804.7	98700	4.4	1.3	92.5	1.8	11.6	3.1	.915	None		
SBR64-7746	804.7-805.7	98701	2.5	1.9	92.4	3.2	6.5a	4.6		None		
SBR64-7747	805.7-806.5	98702	4.2	2.3	91.7	1.8	11.0	5.5	.914	None		
SBR64-7748	806.5-807.2	98703	6.6	1.8	89.9	1.7	17.3	4.3	.910	None		

15 ft
av. 12.5 gal.

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 feet

Surface elevation 5,552 feet

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60°F		Properties of spent shale		Remarks
			Weight percent		Spent shale	Gas loss			Gal per ton		
Laramie	Their		Oil	Water					Oil ^{1/}	Water	
SBR64-7749	807.2-809.5	98704	2.4	0.9	96.0	0.7	6.3	2.0	0.921	None	
SBR64-7750	809.5-810.7	98705	1.7	.4	97.4	.5	4.5a	1.0		None	
SBR64-7751	810.7-812.0	98706	3.2	.4	95.8	.6	8.2	1.0	.920	None	
SBR64-7752	812.0-813.0	98707	4.3	2.2	92.4	1.1	11.3	5.3	.909	None	
SBR64-7753	813.0-814.0	98708	3.1	1.5	94.1	1.3	8.2a	3.6		None	
SBR64-7754	814.0-815.5	98709	4.5	2.6	91.2	1.7	11.8	6.2	.917	None	
SBR64-7755	815.5-816.7	98710	7.8	2.0	87.6	2.6	20.3	4.8	.919	None	
SBR64-7756	816.7-817.7	98711	9.6	2.1	85.9	2.4	25.4	5.0	.902	None	
SBR64-7757	817.7-819.2	98712	4.1	1.0	93.9	1.0	10.9	2.4	.908	None	
SBR64-7758	819.2-820.2	98713	5.1	1.8	91.7	1.4	13.4	4.3	.905	None	
SBR64-7759	820.2-821.2	98714	4.8	2.1	91.5	1.6	12.6	5.0	.910	None	
SBR64-7760	821.2-822.2	98715	5.4	1.8	91.6	1.2	14.4	4.3	.903	None	
SBR64-7761	822.2-823.2	98716	5.8	2.4	91.0	.8	15.1	5.8	.910	None	
SBR64-7762	823.2-824.5	98717	1.2	.5	97.5	.8	3.3a	1.2		None	
SBR64-7763	824.5-825.5	98718	5.4	3.0	89.9	1.7	14.3	7.2	.909	None	
SBR64-7764	825.5-826.1	98719	1.6	.6	97.4	.4	4.1a	1.4		None	
SBR64-7765	826.1-828.0	98720	9.8	1.9	86.3	2.0	26.0	4.6	.909	None	
SBR64-7766	828.0-828.5	98721	1.6	.8	97.2	.4	4.1a	1.9		None	
SBR64-7767	828.5-830.0	98722	5.2	2.3	91.1	1.4	13.5	5.5	.913	None	
SBR64-7768	830.0-831.1	98723	2.4	3.0	93.8	.8	6.2	7.2	.906	None	
SBR64-7769	831.1-832.9	98724	.9	.5	98.1	.5	2.3a	1.2		None	
SBR64-7770	832.9-833.5	98725	4.3	1.1	93.4	1.2	11.2	2.6	.915	None	
SBR64-7771	833.5-833.9	98726	10.7	2.5	84.8	2.0	28.2	6.0	.908	None	
SBR64-7772	833.9-835.5	98727	2.6	.6	95.8	1.0	6.8	1.4	.909	None	
SBR64-7773	835.5-836.6	98728	.7	.2	98.0	1.1	1.9a	.4		None	
SBR64-7774	836.6-837.6	98729	5.5	1.9	90.4	2.2	14.5	4.6	.913	None	
SBR64-7775	837.6-840.6	98730	1.0	.3	97.9	.8	2.6a	.6		None	
SBR64-7776	840.6-841.6	98731	9.4	2.1	86.2	2.3	24.4	5.0	.925	None	
SBR64-7777	841.6-842.6	98732	5.9	2.5	89.4	2.2	15.4	6.0	.925	None	
SBR64-7778	842.6-843.9	98733	1.1	.3	98.0	.6	2.8a	.7		None	

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 feet

Surface elevation 2,522 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	
Laramie	Their		Oil	Water							Oil ^{1/}
SBR64-7779	843.9-844.6	98734	7.6	0.8	89.8	1.8	19.7	1.8	0.925	None	
SBR64-7780	844.6-845.6	98735	7.7	1.5	87.9	2.9	19.8	3.6	.934	None	
SBR64-7781	845.6-846.6	98736	3.5	2.2	92.8	1.5	8.9	5.3	.932	None	
SBR64-7782	846.6-847.6	98737	3.0	2.3	92.9	1.8	7.6	5.5	.931	None	
SBR64-7783	847.6-848.9	98738	2.4	2.4	93.9	1.3	6.2	5.8	.918	None	
SBR64-7784	848.9-850.4	98739	2.8	2.0	94.2	1.0	7.5	4.8	.908	None	
SBR64-7785	850.4-851.8	98740	2.6	.5	96.0	.9	6.7a	1.2		None	
SBR64-7786	851.8-852.8	98741	1.7	1.8	95.8	.7	4.4a	4.3		None	
SBR64-7787	852.8-854.0	98742	1.1	2.5	95.5	.9	2.9a	6.0		None	2/854.0-871.0
SBR64-7788	854.0 871.0-873.0	98743	.5	2.1	94.9	2.5	1.3a	5.0		None	2/873.0-886.0
SBR64-7789	873.0 886.0-887.5	98744	.8	3.2	94.1	1.9	2.0a	7.7		None	
SBR64-7790	887.5-888.8	98745	2.1	2.7	93.2	2.0	5.3	6.5	.931	None	
SBR64-7791	888.8-889.5	98746	5.4	3.2	89.9	1.5	14.0	7.7	.921	None	
SBR64-7792	889.5-891.3	98747	1.3	.4	96.9	1.4	3.4a	1.0		None	
SBR64-7793	891.3-892.6	98748	9.2	2.0	85.4	3.4	23.9	31.1 4.8	.923	None	
SBR64-7794	892.6-893.8	98749	9.1	1.8	84.9	4.2	23.4	28.1 4.3	.928	None	
SBR64-7795	893.8-895.0	98750	3.4	1.0	94.2	1.4	9.0	10.8 2.3	.917	None	
SBR64-7796	895.0-896.4	98751	7.0	2.5	88.7	1.8	18.3	25.6 6.0	.915	None	
SBR64-7797	896.4-897.9	98752	6.2	1.2	91.3	1.3	16.4	24.6 2.9	.904	None	
SBR64-7798	897.9-898.9	98753	5.6	3.0	89.6	1.8	14.9	14.9 7.2	.910	None	
SBR64-7799	898.9-900.0	98754	3.8	3.0	91.5	1.7	9.9	10.9 7.2	.917	None	
SBR64-7800	900.0-901.7	98755	2.2	1.2	95.5	1.1	5.8	9.9 2.9	.914	None	
SBR64-7801	901.7-903.2	98756	3.0	1.6	94.6	.8	7.9	11.9 3.8	.908	None	
SBR64-7802	903.2-904.5	98757	6.2	2.6	89.9	1.3	16.3	21.2 6.2	.916	None	
SBR64-7803	904.5-905.5	98758	2.7	2.3	93.9	1.1	7.0a	7.0 5.5		None	
SBR64-7804	905.5-906.8	98759	1.1	.8	97.2	.9	2.8a	5.6 2.0		None	
SBR64-7805	906.8-907.8	98760	2.7	1.2	95.2	.9	7.2	2.9	.907	None	
SBR64-7806	907.8-908.5	98761	1.7	.4	97.3	.6	4.4a	1.1		None	
SBR64-7807	908.5-909.0	98762	4.1	1.9	92.9	1.1	10.6a	4.6		None	
SBR64-7808	909.0-909.8	98763	1.3	.4	97.7	.6	3.4a	1.1		None	

15.24
avg. 13.3

2/854.0-871.0
2/873.0-886.0

15.24
avg. 13.3

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 feet

			Yield of product					Specific gravity of oil at 60°/60°F	Properties of spent shale		Remarks
Sample number		Run No.	Weight percent		Spent shale	Gas loss	Gal per ton		Tendency to coke		
			Oil	Water			Oil 1/2			Water	
Laramie	Thair										
SBR64-7809	909.8-911.5	98764	3.4	0.6	94.8	1.2	9.0	1.3	0.922	None	
SBR64-7810	911.5-912.5	98765	6.9	1.2	90.3	1.6	18.1	2.9	.911	None	
SBR64-7811	912.5-913.0	98766	2.9	.4	95.7	1.0	7.6	.8	.917	None	
SBR64-7812	913.0-914.0	98767	4.9	2.0	91.9	1.2	12.9	4.8	.913	None	
SBR64-7813	914.0-916.1	98768	1.9	.2	96.8	1.1	4.8a	.6		None	
SBR64-7814	916.1-917.3	98769	9.0	2.3	86.8	1.9	23.4	5.5	.916	None	
SBR64-7815	917.3-918.2	98770	5.8	1.0	91.9	1.3	15.0	2.4	.917	None	
SBR64-7816	918.2-919.0	98771	2.4	.2	96.3	1.1	6.1	.6	.930	None	
SBR64-7817	919.0-919.9	98772	10.1	1.7	86.3	1.9	26.3	4.1	.920	None	
SBR64-7818	919.9-920.8	98773	4.5	1.6	90.9	3.0	11.5	3.8	.927	None	
SBR64-7819	920.8-922.0	98774	4.6	1.3	93.3	.8	11.9	3.1	.924	None	
SBR64-7820	922.0-923.2	98775	2.4	2.6	94.1	.9	6.4	6.2	.914	None	
SBR64-7821	923.2-924.3	98783	4.9	2.9	90.8	1.4	12.7	7.0	.926	None	
SBR64-7822	924.3-926.0	98784	4.8	1.8	91.5	1.9	12.4	4.3	.925	None	
SBR64-7823	926.0-927.0	98785	2.2	.4	96.6	.8	5.7	1.0	.932	None	
SBR64-7824	927.0-928.0	98786	5.6	1.5	91.0	1.9	14.5	3.6	.922	None	
SBR64-7825	928.0-929.2	98787	1.9	1.8	95.3	1.0	4.9a	4.3		None	
SBR64-7826	929.2-931.0	98788	.8	1.2	97.7	.3	2.1a	2.9		None	
SBR64-7827	931.0-933.0	98789	.9	1.6	96.9	.6	2.4a	3.8		None	
SBR64-7828	933.0-935.0	98790	.9	1.2	97.5	.4	2.4a	2.9		None	
SBR64-7829	935.0-937.0	98791	1.5	2.0	95.9	.6	3.8a	4.8		None	
SBR64-7830	937.0-939.0	98792	1.2	2.4	95.7	.7	3.1a	5.8		None	
SBR64-7831	939.0-942.0	98793	.1	3.0	95.6	1.3	.3a	7.2		None	
SBR64-7832	942.0-945.5	98794	.3	3.0	95.3	1.4	.8a	7.2		None	
SBR64-7833	945.5-946.9	98795	1.6	3.6	93.4	1.4	4.2a	8.6		None	
SBR64-7834	946.9-947.9	98796	1.3	1.0	97.1	.6	3.3a	2.4		None	
SBR64-7835	947.9-949.6	98797	7.9	2.0	88.1	2.0	20.8	4.8	.917	None	
SBR64-7836	949.6-950.8	98798	2.2	.6	96.6	.6	5.7	1.6	.911	None	
SBR64-7837	950.8-952.2	98799	5.2	1.3	92.4	1.1	13.7	3.1	.906	None	
SBR64-7838	952.2-954.0	98800	2.6	2.2	93.9	1.3	6.9	5.3	.910	None	

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 feet

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60°F		Properties of spent shale Tendency to coke		Remarks
			Weight percent		Gal per ton						
Laramie	Thair		Oil	Water	Spent shale	Gas + loss	Oil 1/	Water			
SBR64-7839	954.0- 955.8	98801	1.5	0.7	96.5	1.3	3.8a	1.7		None	
SBR64-7840	955.8- 956.8	98802	5.2	.8	92.2	1.8	13.5 ^{a.o.}	1.8	0.925	None	2/ 956.8-971.5
SBR64-7841	971.5- 972.7	98803	1.3	1.6	96.9	.2	3.4a	3.8		None	
SBR64-7842	972.7- 974.7	98804	1.0	1.0	97.4	.6	2.6a	2.3		None	
SBR64-7843	974.7- 976.7	98805	2.6	2.1	94.6	.7	7.0	5.0	.902	None	
SBR64-7844	976.7- 978.0	98806	1.6	2.1	95.7	.6	4.1a	5.0		None	
SBR64-7845	978.0- 980.0	98807	1.4	2.2	94.9	1.5	3.7a	5.3		None	
SBR64-7846	980.0- 981.0	98808	1.6	2.4	95.1	.9	4.1a	5.8		None	
SBR64-7847	981.0- 982.0	98809	1.4	1.9	95.3	1.4	3.8a	4.6		None	
SBR64-7848	982.0- 985.0	98810	.5	.5	98.3	.7	1.4a	1.2		None	
SBR64-7849	985.0- 987.4	98811	1.1	.2	98.6	.1	2.9a	.4		None	Oil stained lime-
SBR64-7850	987.4- 988.4	98812	1.8	.5	97.1	.6	4.7a	1.2		Slight	stone
SBR64-7851	988.4- 989.5	98813	2.6	.9	96.1	.4	6.8	2.2	.910	Slight	
SBR64-7852	989.5- 992.4	98814	.7	.8	98.3	.2	1.9a ^{a.o.}	1.8		None	2/ 992.4-1059.1
SBR64-7853	1059.1-1061.1	98815	.1	3.0	96.8	.1	.3a	7.2		Slight	
SBR64-7854	1061.1-1062.1	98816	.6	2.3	96.3	.8	1.4a	5.5		Slight	
SBR64-7855	1062.1-1064.8	98817	.8	.7	98.1	.4	2.0a	1.7		Slight	
SBR64-7856	1064.8-1066.0	98818	1.5	1.1	96.3	1.1	3.8a	2.6		Slight	
SBR64-7857	1066.0-1068.8	98819	.9	1.8	96.2	1.1	2.3a ^{a.o.}	4.3		None	2/ 1068.8-1155.9
SBR64-7858	1155.9-1157.9	98820	.4	1.9	96.7	1.0	1.1a ^{a.o.}	4.6		None	
SBR64-7859	1157.9-1159.9	98822	.3	2.7	96.1	.9	.7a ^{a.o.}	6.5		None	2/ 1159.9-1261.3
SBR64-7860	1261.3-1262.7	98821	.0	2.8	95.9	1.3	No Oil	6.6		None	
SBR64-7861	1262.7-1263.7	98823	.7	2.6	95.8	.9	1.8a	6.2		None	
SBR64-7862	1263.7-1264.7	98824	2.3	2.1	94.9	.7	5.9	5.0	.923	None	
SBR64-7863	1264.7-1265.4	98825	4.2	2.6	92.0	1.2	10.9	6.2	.931	None	
SBR64-7864	1265.4-1267.2	98826	3.6	1.6	93.8	1.0	9.4	3.8	.922	None	
SBR64-7865	1267.2-1268.9	98827	3.9	.7	94.5	.9	10.2	1.7	.923	None	
SBR64-7866	1268.9-1269.9	98828	4.2	1.7	92.9	1.2	11.0	4.1	.904	None	
SBR64-7867	1269.9-1271.2	98829	7.1	2.2	88.7	2.0	18.8	5.3	.906	None	
SBR64-7868	1271.2-1272.0	98830	.9	.3	98.2	.6	2.4a	.7		None	

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 feet

Sample number		Run No.	Yield of product				Gal per ton		Specific gravity of oil at 60°/60°F	Properties of spent shale Tendency to coke	Remarks
			Weight percent		Spent shale	Gas loss	Oil	Water			
Laramie	Their		Oil	Water			Oil	Water			
SBR64-7869	1272.0-1272.5	98831	14.3	2.6	80.2	2.9	36.9	6.2	0.930	None	
SBR64-7870	1272.5-1274.9	98832	1.6	1.0	96.9	.5	4.2a	2.4		None	
SBR64-7871	1274.9-1276.0	98833	.7	1.6	97.1	.6	1.8a	3.8		None	
SBR64-7872	1276.0-1277.0	98834	2.0	1.0	96.3	.7	5.2a	2.4		None	2/1277.0-1300.3
SBR64-7873	1300.3-1300.4	98835	12.0	2.2	83.3	2.5	31.3	5.4	.917	None	2/1300.4-1495.0
SBR64-7874	1495.0-1496.0	98836	.0	3.0	94.5	2.5	No Oil	7.1		None	
SBR64-7875	1496.0-1497.0	98837	.3	3.1	94.8	1.8	.8a	7.4		None	
SBR64-7876	1497.0-1498.5	98838	.7	.3	97.8	1.2	1.7a	.8		None	
SBR64-7877	1498.5-1499.5	98839	8.0	3.0	87.3	1.7	20.9	7.2	.921	None	
SBR64-7878	1499.5-1501.2	98840	3.7	2.4	91.6	2.3	9.6	5.8	.920	None	
SBR64-7879	1501.2-1502.2	98841	3.2	1.4	93.9	1.5	8.6	3.4	.894	None	
SBR64-7880	1502.2-1504.0	98842	1.8	.6	95.8	1.8	4.8a	1.3		None	
SBR64-7881	1504.0-1505.0	98843	.7	.3	98.7	.3	1.7a	.7		None	
SBR64-7882	1505.0-1506.0	98844	.9	2.0	95.0	2.1	2.4a	4.8		None	
SBR64-7883	1506.0-1508.6	98845	.3	1.5	96.9	1.3	.7a	3.6		None	
SBR64-7884	1508.6-1510.5	98846	1.0	.9	96.3	1.8	2.7a	2.0		None	
SBR64-7885	1510.5-1512.0	98847	3.5	2.6	92.1	1.8	9.2	6.2	.914	None	
SBR64-7886	1512.0-1514.0	98848	.4	.9	98.2	.5	1.0a	2.2		None	2/1514.0-1573.0
SBR64-7887	1573.0-1574.9	98849	.2	3.4	95.9	.5	.4a	8.1		None	
SBR64-7888	1574.9-1576.3	98850	.5	1.6	97.7	.2	1.2a	3.8		None	
SBR64-7889	1576.3-1577.7	98851	.0	3.0	96.1	.9	No Oil	7.1		None	
SBR64-7890	1577.7-1578.7	98852	.1	3.3	95.9	.7	.2a	8.0		None	
SBR64-7891	1578.7-1579.9	98853	.5	2.4	96.2	.9	1.3a	5.8		None	
SBR64-7892	1579.9-1580.9	98854	.4	2.9	95.7	1.0	1.1a	7.0		None	
SBR64-7893	1580.9-1581.9	98855	.2	2.9	96.0	.9	.5a	7.0		None	
SBR64-7894	1581.9-1582.9	98856	.3	2.1	96.1	1.5	.8a	5.0		None	2/1582.9-1624.7
SBR64-7895	1624.7-1625.3	98857	.3	3.0	96.0	.7	.7a	7.2		None	2/1625.3-1631.8
SBR64-7896	1631.8-1632.8	98858	.0	3.0	96.1	.9	No Oil	7.2		None	
SBR64-7897	1632.8-1634.0	98859	.4	2.6	96.7	.3	1.1a	6.2		None	
SBR64-7898	1634.0-1635.0	98860	.6	1.8	96.8	.8	1.6a	4.3		None	

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3845P, Sheet No. 12 of 16 sheets

August 17, 1964

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 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 coke		
Laramie	Their		Oil	Water					Oil ^{1/}		Water	
SBR64-7899	1635.0-1636.2	98861	0.4	1.9	96.7	1.0	0.9a	4.6		None		
SBR64-7900	1636.2-1637.2	98862	.2	2.3	96.7	.8	.6a	5.5		None	2/ 1637.2-1656.0	
SBR64-7901	1637.2-1656.0	98863	.3	1.4	97.1	1.2	.8a	3.4		None		
SBR64-7902	1657.2-1658.5	98864	2.0	1.9	94.9	1.2	5.2a	4.6		None		
SBR64-7903	1658.5-1660.0	98865	2.5	3.1	93.0	1.4	6.8	7.4	0.875	None		
SBR64-7904	1660.0-1661.5	98866	3.2	3.1	92.2	1.5	8.6	7.4	.886	None		
SBR64-7905	1661.5-1662.5	98867	6.0	3.2	88.6	2.2	16.0	7.7	.895	None		
SBR64-7906	1662.5-1663.5	99256	6.9	3.2	88.2	1.7	18.6	7.7	.895	None		
SBR64-7907	1663.5-1665.0	99257	6.5	3.2	88.7	1.6	17.2	7.7	.909	None		
SBR64-7908	1665.0-1666.5	98870	2.1	1.8	94.9	1.2	5.6	4.3	.885	None		
SBR64-7909	1666.5-1667.5	98871	9.0	1.9	86.6	2.5	23.6	4.6	.916	None		
SBR64-7910	1667.5-1668.5	98879	3.0	2.6	92.7	1.7	8.0	6.2	.893	None		
SBR64-7911	1668.5-1670.0	98880	1.4	3.2	94.0	1.4	3.5a	7.7		None		
SBR64-7912	1670.0-1672.2	98881	.8	1.6	96.4	1.2	2.2a	3.8		None		
SBR64-7913	1672.2-1673.5	98882	5.4	2.2	90.6	1.8	14.2	5.3	.907	None		
SBR64-7914	1673.5-1674.7	98883	3.6	2.9	92.4	1.1	9.7	7.0	.891	None		
SBR64-7915	1674.7-1676.0	98884	4.6	3.0	91.5	.9	12.2	7.2	.892	None		
SBR64-7916	1676.0-1677.3	98885	5.4	2.5	90.9	1.2	14.0	6.0	.928	None		
SBR64-7917	1677.3-1678.9	98886	1.7	2.6	94.8	.9	4.4a	6.2		None	2/ 1678.9-1727.4	
SBR64-7918	1727.4-1729.0	98887	.0	4.6	94.4	1.0	No oil	11.0		None		
SBR64-7919	1729.0-1730.3	98888	.8	4.3	93.7	1.2	2.2a	10.3		None		
SBR64-7920	1730.3-1731.6	98889	.8	4.0	94.4	.8	2.2a	9.6		None		
SBR64-7921	1731.6-1732.4	98890	3.0	2.6	93.7	.7	7.9	6.2	.894	None		
SBR64-7922	1732.4-1733.4	98891	5.1	2.0	91.4	1.5	13.5	4.8	.901	None	14.6 ft of	
SBR64-7923	1733.4-1734.4	98892	11.9	2.3	83.1	2.7	31.0	5.5	.919	None	14.6 gal.	
SBR64-7924	1734.4-1735.4	98893	7.5	3.0	87.8	1.7	19.4	7.2	.921	None		
SBR64-7925	1735.4-1735.7	98894	13.1	3.1	80.7	3.1	34.3	7.4	.917	None		
SBR64-7926	1735.7-1736.7	98895	8.6	2.4	87.2	1.8	22.6	5.8	.910	None		
SBR64-7927	1736.7-1738.0	98896	4.9	3.4	90.1	1.6	13.0	8.1	.898	None		
SBR64-7928	1738.0-1739.6	98897	3.9	4.4	90.2	1.5	10.4	10.5	.902	None		

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3845P, Sheet No. 13 of 16 sheets

August 17, 1964

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 feet

Surface elevation 2,252 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	Oil ^{1/}	Water		Tendency to coke		
Laramie	Their		Oil	Water								
SBR64-7929	1739.6-1740.6	98898	4.6	4.0	89.9	1.5	11.9	11.9	9.6	.913	None	
SBR64-7930	1740.6-1741.7	98899	6.4	2.4	89.5	1.7	16.9	16.6	5.8	.909	None	
SBR64-7931	1741.7-1743.6	98900	7.9	3.2	86.8	2.1	21.0	39.7	7.7	.904	Slight	
SBR64-7932	1743.6-1744.6	98901	3.0	3.4	92.5	1.1	7.8		8.1	.902	None	
SBR64-7933	1744.6-1745.6	98902	3.4	3.4	91.8	1.4	8.9		8.1	.909	None	
SBR64-7934	1745.6-1746.7	98903	4.5	3.0	91.2	1.3	11.8		7.2	.918	None	
SBR64-7935	1746.7-1748.0	98904	1.3	2.7	94.5	1.5	3.3a		6.5		None	2/1748.0-1773.0
SBR64-7936	1748.0-1773.0	98905	.3	4.4	94.6	.7	.7a		10.5		None	
SBR64-7937	1774.5-1776.0	98906	.3	4.2	95.0	.5	.7a		10.1		None	
SBR64-7938	1776.0-1778.0	98907	1.5	3.4	94.2	.9	3.9a		8.1		None	
SBR64-7939	1778.0-1780.6	98908	1.2	2.0	95.4	1.4	3.0a		4.8		None	
SBR64-7940	1780.6-1782.4	98909	2.1	2.5	94.1	1.3	5.4		6.0	.942	None	
SBR64-7941	1782.4-1784.2	98910	2.4	1.9	94.3	1.4	6.3		4.6	.932	None	
SBR64-7942	1784.2-1786.0	98911	1.7	2.0	95.2	1.1	4.5a		4.8		None	
SBR64-7943	1786.0-1790.0	98912	1.2	2.0	95.0	1.8	3.2a		4.8		None	
SBR64-7944	1790.0-1791.7	98913	3.0	2.6	93.2	1.2	8.0		6.2	.885	None	
SBR64-7945	1791.7-1793.2	98914	6.5	1.4	91.4	.7	17.0a		3.4		None	
SBR64-7946	1793.2-1795.0	98915	4.8	2.4	90.5	2.3	13.1		5.8	.877	None	
SBR64-7947	1795.0-1796.0	98916	1.3	1.5	96.5	.7	3.4a		3.6		None	
SBR64-7948	1796.0-1797.3	92156	1.4	2.6	94.9	1.1	3.6a		6.4		None	
SBR64-7949	1797.3-1798.3	92157	4.5	3.1	91.1	1.3	11.8		7.4	.905	None	
SBR64-7950	1798.3-1800.0	92158	4.7	3.9	89.9	1.5	12.5		9.3	.902	None	
SBR64-7951	1800.0-1801.0	92159	5.4	3.6	89.2	1.8	14.1		8.6	.911	None	
SBR64-7952	1801.0-1802.0	92160	3.3	3.0	92.6	1.1	8.6		7.2	.916	None	
SBR64-7953	1802.0-1803.0	92161	3.8	4.2	90.7	1.3	10.3		10.1	.897	None	
SBR64-7954	1803.0-1804.2	92162	4.1	3.4	91.1	1.4	11.0		8.1	.896	None	
SBR64-7955	1804.2-1805.3	92163	5.7	4.0	89.0	1.3	14.9		9.6	.922	None	
SBR64-7956	1805.3-1806.5	92164	9.1	3.5	85.7	1.7	22.9		8.4	.950	None	
SBR64-7957	1806.5-1807.1	92165	4.0	2.4	92.5	1.1	10.2		5.8	.937	None	
SBR64-7958	1807.1-1807.7	92166	5.2	3.9	89.5	1.4	13.4		9.3	.930	None	

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 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	Oil ^{1/}	Water		Tendency to coke		
Laramie	Their		Oil	Water								
SBR64-7959	1807.7-1808.3	92167	3.2	3.7	92.2	0.9	8.4	8.9	0.905	None		
SBR64-7960	1808.3-1809.1	92168	6.2	2.4	89.1	2.3	16.5	5.8	.903	None		
SBR64-7961	1809.1-1810.1	92169	7.7	2.0	88.2	2.1	20.0a	4.8		None		
SBR64-7962	1810.1-1811.1	92170	3.1	3.4	91.9	1.6	8.4	8.0	.892	None		
SBR64-7963	1811.1-1812.1	92171	3.4	3.9	91.7	1.0	9.0	9.3	.890	None		
SBR64-7964	1812.1-1813.1	92172	3.9	3.4	90.9	1.8	10.5	8.1	.893	None		
SBR64-7965	1813.1-1814.1	92173	4.6	3.9	89.7	1.8	12.2	9.5	.900	None		
SBR64-7966	1814.1-1815.2	92174	2.6	4.4	91.5	1.5	7.1	10.4	.883	None		
SBR64-7967	1815.2-1816.2	92175	4.1	4.0	89.5	2.4	11.0	9.5	.895	None		
SBR64-7968	1816.2-1817.2	92176	4.9	1.9	91.9	1.3	13.2	4.6	.900	None		
SBR64-7969	1817.2-1818.2	92177	6.3	3.8	87.9	2.0	16.4	9.1	.912	None		
SBR64-7970	1818.2-1819.2	92178	4.9	3.6	89.8	1.7	12.9	8.5	.918	None		
SBR64-7971	1819.2-1820.3	92179	8.0	2.3	87.9	1.8	20.6	5.4	.935	None		
SBR64-7972	1820.3-1821.3	92180	5.4	2.4	90.2	2.0	14.0	5.9	.915	None		
SBR64-7973	1821.3-1822.6	92181	5.2	4.1	89.1	1.6	13.7	9.8	.904	None		
SBR64-7974	1822.6-1823.7	92182	2.9	2.0	93.9	1.2	7.5	4.8	.905	None		
SBR64-7975	1823.7-1824.2	92183	6.3	3.0	89.0	1.7	16.8	7.2	.897	None		
SBR64-7976	1824.2-1825.1	92184	6.9	.6	90.9	1.6	18.2	1.6	.909	None		
SBR64-7977	1825.1-1826.2	92185	5.7	2.8	88.9	2.6	14.8	6.7	.925	None		
SBR64-7978	1826.2-1827.4	92186	4.3	1.4	92.7	1.6	11.2	3.5	.921	None		
SBR64-7979	1827.4-1828.5	92187	2.0	2.0	95.1	.9	5.0a	4.8		None		
SBR64-7980	1828.5-1829.7	92188	3.2	3.0	92.5	1.3	8.2	7.2	.926	None		
SBR64-7981	1829.7-1830.2	92189	4.5	1.0	93.4	1.1	11.8	2.3	.919	None		
SBR64-7982	1830.2-1831.3	92190	6.0	3.6	88.3	2.1	15.9	8.6	.899	None		
SBR64-7983	1831.3-1831.9	92191	1.0	.3	98.2	.5	2.7a	.7		None		
SBR64-7984	1831.9-1834.0	98917	1.4	3.1	93.9	1.6	3.5a	7.4		None		
SBR64-7985	1834.0-1836.7	98918	1.0	3.2	94.7	1.1	2.6a	7.7		None		
SBR64-7986	1836.7-1838.6	98919	4.8	3.3	90.7	1.2	13.0	7.9	.894	None		
SBR64-7987	1838.6-1840.7	98920	1.4	3.6	94.0	1.0	3.7a	8.6		None		
SBR64-7988	1840.7-1842.0	98921	3.9	2.9	92.0	1.2	10.2	7.0	.910	None		

See footnotes at end of table.

Core samples received October 24, 1963; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Skyline Oil Company's Watson well 1-A (con.)

Surface elevation 5,532 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 coke		
			Oil	Water			Oil ^{1/}	Water				
SBR64-7989	1842.0-1843.5	98922	3.5	3.0	91.9	1.6	9.2a	7.2		None		
SBR64-7990	1853.0-1856.2	98923	1.8	4.2	93.1	.9	4.6a	10.1		None		
SBR64-7991	1856.2-1857.4	98924	2.0	3.0	93.9	1.1	5.4	7.2	0.901	None		
SBR64-7992	1857.4-1858.9	98925	3.6	4.2	90.7	1.5	9.6	10.1	.902	None		
SBR64-7993	1858.9-1860.5	98926	4.0	1.5	93.2	1.3	10.4a	3.6		None		
SBR64-7994	1860.5-1861.4	98927	5.7	3.6	88.2	2.5	15.0	8.6	.912	None		
SBR64-7995	1861.4-1862.3	98928	3.2	1.0	94.7	1.1	8.4	2.4	.904	None		
SBR64-7996	1862.3-1863.4	98929	5.2	3.8	88.9	2.1	13.4	9.1	.920	None		
SBR64-7997	1863.4-1864.5	98930	2.1	.4	96.2	1.3	5.3	1.1	.925	None		
SBR64-7998	1864.5-1866.1	98931	3.2	1.8	93.8	1.2	8.5	4.3	.906	None		
SBR64-7999	1866.1-1866.7	98932	.7	4.4	94.0	.9	1.7a	10.5		None		
SBR64-8000	1866.7-1867.7	98933	5.4	2.6	90.4	1.6	14.3	6.2	.898	None		
SBR64-8001	1867.7-1868.9	98934	5.8	2.6	89.6	2.0	15.7	6.2	.892	None		
SBR64-8002	1868.9-1869.6	98935	.9	.3	98.3	.5	2.3a	.8		None		
SBR64-8003	1869.6-1871.0	98936	1.5	2.9	94.2	1.4	4.0a	7.0		None		
SBR64-8004	1871.0-1872.4	98937	2.0	3.0	93.6	1.4	5.5a	7.2	.888	None	2/ 1872.4-1879.0	
SBR64-8005	1879.0-1883.0	98938	.7	1.7	96.8	.8	1.9a	4.1		None		
SBR64-8006	1883.0-1886.3	98939	.5	1.5	97.2	.8	1.3a	3.6		None	2/ 1886.3-1940.0	
	1886.3-1940.0						0.0					

1/ "a"--indicates specific gravity estimated as 0.92.

2/ Sections of barren rock not assayed.

Core samples received October 24, 1963; assays made on air-dried samples

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August 17, 1964