

CN#656

U134

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 2 Corehole located 1,050 feet N/S and 1,150 feet E/W of sec 22, T 12 S, R 24 E, S.L.M., Uintah County, Utah

Surface elevation 6,225 feet

USQMO360

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
SBR73-5399	80.0- 81.0	81744	2.8	1.4	94.9	0.9	7.2	3.4	0.928	None	
SBR73-5400	81.0- 82.0	81745	4.3	1.1	93.6	1.0	11.1	2.6	.925	None	
SBR73-5401	82.0- 83.0	81746	2.7	1.6	94.9	.8	7.0	3.8	.925	None	
SBR73-5402	83.0- 84.0	81747	2.4	1.7	95.3	.6	6.2	4.1	.924	None	
SBR73-5403	84.0- 85.0	81748	2.9	1.7	94.7	.7	7.5	4.1	.926	None	
SBR73-5404	85.0- 86.0	81749	1.9	1.7	95.9	.5	4.9a	4.1		None	
SBR73-5405	86.0- 87.0	81750	4.7	1.2	92.8	1.3	12.2	2.9	.926	None	
SBR73-5406	87.0- 88.0	81751	3.3	1.3	94.4	1.0	8.6	3.1	.924	None	
SBR73-5407	88.0- 89.0	81752	3.3	1.2	94.6	.9	8.6	2.9	.921	None	
SBR73-5408	89.0- 90.0	81753	12.1	1.5	84.0	2.4	31.4	3.6	.925	None	
SBR73-5409	90.0- 91.0	81754	4.2	1.1	93.6	1.1	10.9	2.6	.925	None	
SBR73-5410	91.0- 92.0	81755	4.6	1.4	92.7	1.3	11.9	3.4	.926	None	
SBR73-5411	92.0- 93.0	81756	4.6	1.4	92.5	1.5	11.9	3.4	.923	None	
SBR73-5412	93.0- 94.0	81757	9.4	1.2	86.9	2.5	24.5	2.9	.919	None	
SBR73-5413	94.0- 95.0	81758	6.7	1.3	90.1	1.9	17.5	3.1	.917	None	
SBR73-5414	95.0- 96.0	81759	5.3	.9	92.3	1.5	13.9	2.2	.916	None	
SBR73-5415	96.0- 97.0	81760	13.8	1.7	81.6	2.9	36.3	4.1	.911	Slight	
SBR73-5416	97.0- 98.0	81761	3.6	1.0	94.1	1.3	9.4	2.4	.921	None	
SBR73-5417	98.0- 99.0	81762	2.9	.9	95.9	.3	7.5	2.2	.925	None	
SBR73-5418	99.0-100.0	81763	2.4	.8	95.7	1.1	6.2	1.9	.922	None	
SBR73-5419	100.0-101.0	81764	2.4	.6	96.2	.8	6.3	1.4	.909	None	
SBR73-5420	101.0-102.0	81765	3.1	.8	95.0	1.1	8.0	1.9	.924	None	
SBR73-5421	102.0-103.0	81766	3.3	.6	95.1	1.0	8.6	1.4	.916	None	
SBR73-5422	103.0-104.0	81767	1.5	.9	96.7	.9	3.9a	2.2		None	
SBR73-5423	104.0-105.0	81768	.9	.8	97.5	.8	2.3a	1.9		None	
SBR73-5424	105.0-106.0	81769	1.0	.8	97.6	.6	2.6a	1.9		None	
SBR73-5425	106.0-107.0	81770	1.6	1.0	96.9	.5	4.2a	2.4		None	
SBR73-5426	107.0-108.0	81771	3.6	1.0	94.3	1.1	9.5	2.4	.912	None	
SBR73-5427	108.0-109.0	81772	5.6	1.1	91.3	2.0	14.8	2.6	.908	None	Base A-Groov
SBR73-5428	109.0-110.0	81773	6.0	1.4	91.1	1.5	15.8	3.4	.909	None	

See footnote at end of table.

Core samples received April 28, 1972; Assays made on air-dried samples

109.0' - 174.5'
 25.5' of 25.05 S/LON

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May 21, 1973

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 2 Corehole (con.)

Surface elevation 6,225 feet

Sample number		Run No.	Yield of product				Gal per ton		Specific gravity of oil at 60°/60° F	Properties of		Remarks
			Weight percent		Spent shale	Gas + loss				spent shale		
Laramie	Their		Oil	Water					Oil	Water		Tendency to
										coke		
SBR73-5429	110.0-111.0	81774	11.9	1.6	84.1	2.4	31.5	3.8	0.906	None		
SBR73-5430	111.0-112.0	81775	5.2	1.3	91.9	1.6	13.6	3.1	.915	None		
SBR73-5431	112.0-113.0	81776	5.8	.9	92.6	.7	15.3	2.2	.907	None		
SBR73-5432	113.0-114.0	81777	4.4	1.2	93.6	.8	11.5	2.9	.917	None		
SBR73-5433	114.0-115.0	81778	7.7	1.4	89.3	1.6	20.2	3.4	.914	None		
SBR73-5434	115.0-116.0	81779	12.4	1.4	83.2	3.0	32.5	3.4	.914	None		
SBR73-5435	116.0-117.0	81780	8.3	1.0	88.9	1.8	21.8	2.4	.912	None		
SBR73-5436	117.0-118.0	81781	16.3	1.1	79.8	2.8	43.6	2.6	.897	None		
SBR73-5437	118.0-119.0	81782	15.8	1.8	79.6	2.8	42.1	4.3	.899	Slight		
SBR73-5438	119.0-120.0	81783	16.4	1.5	79.1	3.0	43.3	3.6	.908	Slight		
SBR73-5439	120.0-121.0	81784	8.6	.8	88.9	1.7	22.9	1.9	.900	None		
SBR73-5440	121.0-122.0	81785	6.3	.8	90.8	2.1	16.4	1.9	.921	None		
SBR73-5441	122.0-123.0	81786	4.1	.7	94.0	1.2	10.6	1.7	.923	None		
SBR73-5442	123.0-124.1	81787	5.3	.7	92.5	1.5	13.8	1.7	.921	None		
SBR73-5443	124.1-125.2	81788	7.7	1.2	89.3	1.8	20.2	2.9	.915	None		
SBR73-5444	125.2-126.3	81789	4.1	.8	94.0	1.1	10.6	1.9	.924	None		
SBR73-5445	126.3-127.3	81790	4.3	.7	93.6	1.4	11.2	1.7	.921	None	Mahogany Marke	
SBR73-5446	127.3-128.3	81791	4.1	1.3	93.6	1.0	10.6	3.1	.922	None	126.9-127.3	
SBR73-5447	128.3-129.3	81792	3.7	.8	94.3	1.2	9.6	1.9	.922	None		
SBR73-5448	129.3-130.3	81793	3.0	.7	95.4	.9	7.8	1.7	.917	None		
SBR73-5449	130.3-131.3	81794	3.5	.8	94.7	1.0	9.2	1.9	.909	None		
SBR73-5450	131.3-132.3	81795	4.4	.7	93.8	1.1	11.6	1.7	.910	None		
SBR73-5451	132.3-133.3	81796	5.9	.6	92.3	1.2	15.5	1.4	.914	None		
SBR73-5452	133.3-134.4	81797	14.2	1.6	81.3	2.9	37.2	3.8	.916	Slight		
SBR73-5453	134.4-135.4	81798	8.8	.9	88.6	1.7	23.4	2.2	.902	None		
SBR73-5454	135.4-136.5	81799	6.9	1.0	90.7	1.4	18.2	2.4	.906	None		
SBR73-5455	136.5-137.6	81800	13.7	1.3	82.8	2.2	36.2	3.1	.908	Slight		
SBR73-5456	137.6-138.8	81801	24.9	2.0	68.5	4.6	66.2	4.8	.902	Heavy		
SBR73-5457	138.8-139.8	81802	30.1	2.5	62.0	5.4	79.9	6.0	.903	Heavy	Mahogany bed	
SBR73-5458	139.8-140.8	81803	29.9	3.0	61.0	6.1	79.4	7.2	.903	Heavy		

Core samples received April 28, 1972; Assays made on air-dried samples

Laramie Energy Research Center, Laramie, Wyoming, Illustration No. SBR-4532P Sheet No. 2 of 4 sheets

May 21, 1973

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 2 Corehole (con.)

Surface elevation 6,225 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		
SBR73-5459	140.8-141.8	81804	22.7	2.0	71.0	4.3	60.0	4.8	0.906	Heavy		
SBR73-5460	141.8-142.3	81805	11.9	.6	85.4	2.1	31.7	1.4	.899	Slight		
SBR73-5461	142.3-143.4	81806	23.4	1.7	70.8	4.1	61.7	4.1	.909	Slight		
SBR73-5462	143.4-144.8	81807	7.8	.8	89.8	1.6	20.3	1.9	.919	None		
SBR73-5463	144.8-146.0	81808	16.5	1.1	79.8	2.6	42.9	2.6	.921	Slight		
SBR73-5464	146.0-147.1	81809	6.5	.6	91.9	1.0	17.0	1.4	.917	None		
SBR73-5465	147.1-148.2	81810	19.3	1.1	76.5	3.1	51.2	2.6	.904	Slight		
SBR73-5466	148.2-149.2	81811	18.0	1.1	77.8	3.1	47.5	2.6	.908	Slight		
SBR73-5467	149.2-150.2	81812	6.8	.5	91.5	1.2	18.3	1.2	.891	None		
SBR73-5468	150.2-151.5	81813	13.6	.9	83.1	2.4	35.8	2.2	.911	None		
SBR73-5469	151.5-152.6	81814	5.6	.5	92.9	1.0	14.7	1.2	.915	None		
SBR73-5470	152.6-153.8	81815	5.5	.7	92.7	1.1	14.4	1.7	.917	None		
SBR73-5471	153.8-155.1	81816	16.1	1.6	79.4	2.9	41.7	3.8	.925	Slight		
SBR73-5472	155.1-156.3	81817	4.5	.8	93.6	1.1	11.8	1.9	.917	None		
SBR73-5473	156.3-157.4	81818	4.0	.7	94.6	.7	10.4	1.7	.917	None		
SBR73-5474	157.4-158.4	81819	5.6	.7	92.6	1.1	14.7	1.7	.913	None		
SBR73-5475	158.4-159.4	81820	13.6	1.4	83.6	1.4	35.7	3.4	.913	None		
SBR73-5476	159.7-160.7	81821	10.6	.9	86.9	1.6	28.4	2.2	.896	None		
SBR73-5477	160.7-161.7	81822	8.1	.8	89.6	1.5	22.1	1.9	.879	None		
SBR73-5478	161.7-162.9	81823	12.0	1.1	84.7	2.2	31.9	2.6	.902	None		
SBR73-5479	162.9-164.1	81824	6.0	.9	92.1	1.0	15.7	2.2	.913	None		
SBR73-5480	164.1-165.2	81825	3.2	.6	95.5	.7	8.3	1.4	.926	None		
SBR73-5481	165.2-166.4	81826	4.3	.5	94.0	1.2	11.2	1.2	.922	None		
SBR73-5482	166.4-167.4	81827	8.8	.5	88.7	2.0	22.8	1.2	.927	None		
SBR73-5483	167.4-168.5	81828	3.1	.6	95.5	.8	8.0	1.4	.925	None		
SBR73-5484	168.5-169.5	81829	1.7	.2	97.7	.4	4.4a	.5		None		
SBR73-5485	169.5-170.5	81830	1.8	.3	97.5	.4	4.7a	.7		None		
SBR73-5486	170.5-171.5	81831	5.1	.5	93.0	1.4	13.4	1.2	.913	None		
SBR73-5487	171.5-172.5	81832	3.0	1.8	94.3	.9	7.8	4.3	.918	None		
SBR73-5488	172.5-173.5	81833	3.6	.4	94.7	1.3	9.4	1.0	.918	None		

See footnote at end of table.

Core samples received April 28, 1972; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 2 Corehole (con.)

Surface elevation 6,225 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 ^{1/}	Water			
Laramie	Their		Oil	Water							
SBR73-5489	173.5-174.5	81834	10.3	0.7	86.9	2.1	26.8	1.7	0.921	None	
SBR73-5490	174.5-175.8	81835	2.7	.5	95.7	1.1	7.1	1.2	.915	None	
SBR73-5491	175.8-177.1	81836	7.4	.8	90.2	1.6	19.4	1.9	.916	None	
SBR73-5492	177.1-178.3	81837	1.5	.6	97.1	.8	3.9a	1.4		None	
SBR73-5493	178.3-179.4	81838	4.5	.5	93.7	1.3	11.7	1.2	.923	None	
SBR73-5494	179.4-180.4	81839	3.6	2.0	93.7	.7	9.3	4.8	.930	None	
SBR73-5495	180.4-181.5	81840	2.9	1.5	94.6	1.0	7.5	3.6	.925	None	
SBR73-5496	181.5-182.6	81841	1.5	.4	97.5	.6	3.9a	1.0		None	
SBR73-5497	182.6-183.6	81842	1.7	.4	97.2	.7	4.4a	1.0		None	
SBR73-5498	183.6-184.6	81843	1.9	.2	97.1	.8	4.9a	.5		None	

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

Core samples received April 28, 1972; Assays made on air-dried samples

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May 21, 1973