

4-19

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from H. M. Byllesby and Company, Inc. Juniper core hole, drilled S. 1° E. 185 feet from N. W. corner, sec. 28, T. 12 S., R. 20 E., Uintah County, Utah

Surface elevation - 5,872 feet

Mahogany Marker - 5752'

Mahogany Marker - 5752'			Yield of product						Specific gravity of oil at 60°/60° F.	Properties of spent shale		Remarks
Sample number		Run No.	Weight percent			Gal. per ton		Tendency to				
Laramie	Their		Oil	Water	Spent shale	Gas + loss	Oil			Water		
SBR60-212	10 - 14	61314	0.9	2.7	95.8	0.6	2.2a	6.5	0.921	coke		
SBR60-213	14 - 17	61315	1.1	3.0	95.2	.7	3.0a	7.2		None		
SBR60-214	17 - 21	61316	.9	3.0	95.5	.6	2.2a	7.2		None		
SBR60-215	21 - 24	61317	1.2	2.9	95.1	.8	3.1a	7.0		None		
SBR60-216	24.0 - 26.5	61318	1.7	2.4	95.0	.9	4.3a	5.8	.921	None		
SBR60-217	26.5 - 30.0	61319	1.2	1.2	97.6	.0	3.0a	2.9		None		
SBR60-218	30.0 - 33.5	61350	.6	1.6	97.4	.4	1.6a	3.8		None		
SBR60-219	33.5 - 34.5	61351	4.8	1.2	93.1	.9	12.5	2.9		None		
SBR60-220	34.5 - 35.1	61352	5.3	1.1	92.9	.7	13.8	2.6	.924	None		
SBR60-221	35.1 - 39.6	61353	1.2	1.4	97.0	.4	3.2a	3.4		None		
SBR60-222	39.6 - 41.0	61354	1.5	2.2	96.0	.3	3.8a	5.3		None		
SBR60-223	41.0 - 42.0	61355	5.1	2.0	92.0	.9	13.1	4.8		None		
SBR60-224	42.0 - 43.0	61356	5.3	1.2	92.4	1.1	13.8	2.9	.919	None		
SBR60-225	43.0 - 47.0	61357	1.7	1.6	95.9	.8	4.5a	3.7		None		
SBR60-226	47.0 - 48.0	61358	4.9	2.1	92.0	1.0	12.8	5.0		None		
SBR60-227	48.0 - 49.0	61359	4.5	1.8	92.8	.9	11.6	4.3		None		
SBR60-228	49.0 - 51.0	61360	1.6	1.9	95.9	.6	4.1a	4.6	.922	None		
SBR60-229	51.0 - 52.6	61361	1.4	2.5	95.6	.5	3.5a	6.1		None		
SBR60-230	52.6 - 53.4	61362	.5	1.3	97.8	.4	1.2a	3.2		None		
SBR60-231	53.4 - 55.1	61363	1.9	2.5	94.8	.8	4.8a	6.0		None		
SBR60-232	55.1 - 56.0	61364	3.9	1.7	93.3	1.1	10.1	4.1	.924	None		
SBR60-233	56.0 - 58.0	61365	1.6	1.7	96.2	.5	4.1a	4.2		None		
SBR60-234	58.0 - 60.0	61366	.8	2.3	96.6	.3	2.0a	5.5		None		
SBR60-235	60.0 - 62.4	61367	1.0	1.9	96.3	.8	2.7a	4.6		None		
SBR60-236	62.4 - 64.0	61368	4.3	1.6	93.0	1.1	11.2	3.7	.923	None		
SBR60-237	64.0 - 66.0	61369	1.2	1.7	96.5	.6	3.3a	4.1		None		
SBR60-238	66.0 - 68.0	61370	.5	1.0	97.5	1.0	1.2a	2.5		None		
SBR60-239	68.0 - 70.0	61371	.8	1.3	97.2	.7	2.0a	3.1		None		
SBR60-240	70.0 - 72.0	61372	.8	1.7	97.0	.5	2.1a	4.1		None		
SBR60-241	72.0 - 73.0	61373	1.9	1.4	96.1	.6	5.0a	3.4		None		

a - Specific gravity estimated due to insufficient oil.

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

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from N. W. corner, sec. 28, T. 12 S., R. 20 E., Uintah County, Utah

Surface elevation - 5,872 feet

Sample number	Run No.	Yield of product		Spent shale	Gas + loss	Cal. per ton		Specific gravity of oil at 60°/60° F.	Properties of spent shale Tendency to coke	Remarks
		Weight percent	Oil			Oil	Water			
Laramie	Their									
SBR60-242	73.0-74.2	64374	6.5	1.3	90.9	1.3	16.8	3.1	0.924	None
SBR60-243	74.2-75.2	64375	1.4	1.1	96.8	.7	3.7a	2.6		None
SBR60-244	75.2-77.0	64376	.9	1.1	97.7	.3	2.4a	2.6		None
SBR60-245	77.0-79.0	64377	.6	1.3	97.7	.4	1.6a	3.0		None
SBR60-246	79.0-81.0	64378	.6	1.3	97.7	.4	1.6a	3.1		None
SBR60-247	81.0-83.0	64379	.6	1.3	97.6	.5	1.7a	3.0		None
SBR60-248	83.0-86.2	64380	.6	1.1	97.5	.8	1.7a	2.6		None
SBR60-249	86.2-88.0	64381	.2	.0	99.8	.0	.4a	.0		None
SBR60-250	88.0-90.6	64382	.1	.3	99.5	.1	.2a	.8		None
SBR60-251	90.6-92.0	64383	1.6	1.6	96.1	.7	4.2a	3.8		None
SBR60-252	92.0-93.0	64384	1.2	1.4	96.9	.5	3.2a	3.4		None
SBR60-253	93.0-95.0	64385	.9	1.6	96.6	.9	2.3a	4.0		None
SBR60-254	95.0-97.0	64386	.5	1.9	96.9	.7	1.4a	4.4		None
SBR60-255	97.0-98.5	64387	.9	1.7	96.8	.6	2.2a	4.2		None
SBR60-256	98.5-100.0	64388	1.0	1.8	96.3	.9	2.6a	4.4		None
SBR60-257	100.0-101.5	64389	.7	1.4	97.7	.2	1.8a	3.5		None
SBR60-258	101.5-103.4	64390	2.1	.9	96.3	.7	5.6	2.2	0.922	None
SBR60-259	103.4-105.0	64391	2.9	1.1	95.1	.9	7.5	2.6	.925	None
SBR60-260	105.0-107.0	64392	1.6	1.3	96.3	.8	4.2a	3.1		None
SBR60-261	107.0-109.0	64393	1.2	1.5	96.4	.9	3.0a	3.7		None
SBR60-262	109.0-110.0	64394	1.5	2.2	95.4	.9	3.9a	5.2		None
SBR60-263	110.0-111.0	64395	1.4	2.3	95.4	.9	3.5a	5.5		None
SBR60-264	111.0-112.0	64396	1.9	2.3	94.9	.9	4.9a	5.5		None
SBR60-265	112.0-115.0	64397	1.4	1.8	96.2	.6	3.7a	4.2		None
SBR60-266	115.0-116.0	64398	2.0	1.7	95.5	.8	5.1a	4.1		None
SBR60-267	116.0-117.0	64399	2.2	1.6	95.5	.7	5.8	3.8	.930	None
SBR60-268	117.0-118.0	64400	2.2	1.7	95.5	.6	5.6	4.1	.927	None
SBR60-269	118.0-119.0	64401	2.6	1.8	94.4	1.2	6.7	4.4	.931	None
SBR60-270	120.0-121.0	64402	2.2	2.2	94.7	.9	55.7	5.3	.932	None
SBR60-271	121.0-122.0	64403	2.8	1.7	94.4	1.1	7.3	4.0	.935	None

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Surface elevation - 5,872 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		Spent shale	Gas + loss	Gal. per ton				
			Oil	Water			Oil	Water			
Laramie	Their										
SBR60-272	122.0-124.0	64404	1.2	1.3	96.3	1.2	3.2a	3.1	0.930 .931	None	
SBR60-273	124.0-126.0	64405	1.3	1.0	96.9	.8	3.4a	2.5		None	
SBR60-274	126.0-127.5	64406	1.3	1.6	96.6	.5	3.4a	3.8		None	
SBR60-275	127.5-128.5	64407	2.2	2.0	95.0	.8	5.7	4.8		None	
SBR60-276	128.5-130.0	64408	3.1	1.5	94.5	.9	7.9	3.7		None	
SBR60-277	130.0-132.0	64409	1.8	1.5	95.9	.8	4.7a	3.5	.926 .927 .931	None	
SBR60-278	132.0-134.0	64410	.8	1.3	97.4	.5	2.1a	3.1		None	
SBR60-279	134.0-136.0	64411	1.0	1.1	97.0	.9	2.5a	2.6		None	
SBR60-280	136.0-137.0	64412	1.6	1.8	95.5	1.1	4.1a	4.4		None	
SBR60-281	137.0-138.0	64413	1.5	2.3	95.8	.4	3.9a	5.5		None	
SBR60-282	138.0-139.0	64414	2.2	2.0	95.2	.6	5.8	4.7	.926	None	
SBR60-283	139.0-140.0	64415	2.0	1.9	95.4	.7	5.3	4.4		None	
SBR60-284	140.0-141.0	64416	2.8	1.8	94.7	.7	7.3	4.2		None	
SBR60-285	141.0-142.0	64417	1.8	1.8	95.6	.8	4.7a	4.3		None	
SBR60-286	142.0-143.0	64418	1.3	2.1	95.8	.8	3.5a	4.9		None	
SBR60-287	143.0-144.4	64419	2.3	1.8	95.0	.9	6.0	4.3	.931 .926	None	
SBR60-288	144.4-146.4	64420	.8	1.5	97.1	.6	2.0a	3.6		None	
SBR60-289	146.4-147.5	64421	1.4	1.7	96.4	.5	3.6a	4.1		None	
SBR60-290	147.5-148.5	64422	1.6	1.7	96.0	.7	4.1a	4.1		None	
SBR60-291	148.5-150.0	64423	2.4	1.9	94.8	.9	6.3	4.6		None	
SBR60-292	150.0-152.0	64424	2.2	1.9	95.3	.6	5.6	4.6	.925 .925	None	
SBR60-293	152.0-154.0	64425	1.5	2.0	95.7	.8	3.8a	4.8		None	
SBR60-294	154.0-155.0	64426	1.6	2.3	95.3	.8	4.2a	5.5		None	
SBR60-295	155.0-156.0	64427	1.8	2.4	94.8	1.0	4.8a	5.8		None	
SBR60-296	156.0-157.0	64428	1.5	2.5	95.1	.9	3.9a	6.0		None	
SBR60-297	157.0-158.0	64429	1.4	1.2	95.5	1.9	3.5a	3.0	.925 .925	None	
SBR60-298	158.0-159.0	64430	2.5	1.6	94.9	1.0	6.6	3.8		None	
SBR60-299	159.0-160.0	64431	2.6	1.5	95.1	.8	6.6	3.6		None	
SBR60-300	160.0-161.0	64432	1.6	1.6	96.2	.6	4.3a	3.8		None	
SBR60-301	161.0-163.0	64433	.7	1.0	97.9	.4	1.9a	2.4		None	

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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		Spent shale	Gas + loss	Cal. per ton				
			Oil	Water							
Laramie	Thier						Oil	Water			
SBR60-302	163.0-164.0	64434	0.9	1.3	97.3	0.5	2.3a	3.1	0.930	None	
SBR60-303	164.0-165.0	64435	1.3	1.6	96.1	1.0	3.4a	3.8		None	
SBR60-304	165.0-166.0	64436	1.9	1.8	95.6	.7	5.0a	4.3		None	
SBR60-305	166.0-167.5	64437	2.3	1.3	95.7	.7	6.0	3.1		None	
SBR60-306	167.5-170.0	64438	.8	1.5	97.0	.7	2.2a	3.6		None	
SBR60-307	170.0-172.0	64439	1.2	1.6	96.5	.7	3.0a	3.8		None	
SBR60-308	172.0-174.3	64440	.9	1.9	96.4	.8	2.4a	4.6		None	
SBR60-309	174.3-176.0	64441	1.9	2.0	95.5	.6	4.9a	4.9		None	
SBR60-310	176.0-178.0	64442	1.1	1.6	96.9	.4	2.7a	3.8		None	
SBR60-311	178.0-180.0	64443	1.0	1.4	97.2	.4	2.6a	3.4		None	
SBR60-312	180.0-182.0	64444	.9	1.4	97.1	.6	2.4a	3.4		None	
SBR60-313	182.0-184.0	64445	.9	1.6	96.9	.6	2.4a	3.8		None	
SBR60-314	184.0-186.0	64446	.9	2.0	96.5	.6	2.4a	4.8		None	
SBR60-315	186.0-188.0	64447	1.0	1.6	96.9	.5	2.5a	3.8		None	
SBR60-316	188.0-190.0	64448	1.0	1.6	96.9	.5	2.5a	3.8	None		
SBR60-317	190.0-192.0	64449	1.1	1.5	96.9	.5	2.8a	3.6	None		
SBR60-318	192.0-194.0	64450	1.1	1.6	96.8	.5	2.8a	3.8	None		
SBR60-319	194.0-196.0	64451	1.1	1.7	96.5	.7	3.0a	4.1	None		
SBR60-320	196.0-198.0	64452	1.0	1.5	96.4	1.1	2.7a	3.6	None		
SBR60-321	198.0-200.0	64453	1.4	1.3	96.5	.8	3.6a	3.1	None		
SBR60-322	200.0-202.0	64454	1.0	1.6	96.8	.6	2.7a	3.8	None		
SBR60-323	202.0-204.0	64455	1.1	1.4	97.0	.5	3.0a	3.4	None		
SBR60-324	204.0-206.0	64456	1.2	1.3	97.0	.5	3.2a	3.1	None		
SBR60-325	206.0-207.0	64457	1.7	1.6	95.3	1.4	4.4a	3.8	None		
SBR60-326	207.0-208.0	64458	2.8	1.6	94.8	.8	7.2	3.8	.931	None	
SBR60-327	208.0-209.0	64459	1.3	1.7	95.8	.7	4.8a	4.1		None	
SBR60-328	209.0-210.0	64460	.4	1.8	96.1	1.7	1.0a	4.3		None	
SBR60-329	210.0-212.0	64461	1.1	1.4	96.8	.7	3.0a	3.4		None	
SBR60-330	212.0-214.0	64462	1.4	1.6	96.0	1.0	3.6a	3.8		None	
SBR60-331	214.0-216.0	64463	1.1	2.1	95.9	.9	2.8a	5.0	None		

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Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3004P February 1, 1960

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Surface elevation - 5,872 feet

Sample number		Run No.	Yield of product						Specific gravity of oil at 60°/60° F.	Properties of spent shale		Remarks
			Weight percent		Cal. per ton					Tendency to		
Laramie	Ther		Oil	Water	Spent shale	Gas + loss	Oil	Water		coke		
SBR60-332	216.0-218.0	64464	1.1	2.6	95.3	1.0	2.9a	6.2		None		
SBR60-333	218.0-219.0	64465	1.7	2.4	94.3	1.6	4.4a	5.8		None		
SBR60-334	219.0-220.2	64466	3.1	1.0	94.3	1.6	8.0	2.4	0.923	None		

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