

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Ponka Drilling and Production Company's Amerada-Coyote Basin Well No. 28-1 drilled  
in <sup>NW</sup>SE1/4SE1/4 (851 feet N/S 1039 feet W/E) of sec 28, T 8 S, R 25 E, Uintah County, Utah

Surface elevation 5,495

Kelly Bushing elevation 5,505 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	Their	Oil	Water	Spent shale	Gas + loss	Oil <sub>1</sub> / Water			
SBR71-6605-38	300- 640					No oil			
SBR71-6639	640- 650					b			
SBR71-6640-41	650- 670					c			
SBR71-6642-47	670- 730					No oil			
SBR71-6648	730- 740					b			
SBR71-6649-50	740- 760					c			
SBR71-6651-54	760- 800					No oil			
SBR71-6655-56	810- 830					No oil			
SBR71-6657-60	870- 910					No oil			
SBR71-6661	910- 920					b			
SBR71-6662	920- 930					No oil			
SBR71-6663	930- 940	60277	0.1	1.9	97.9	0.1	0.3a	4.6	None
SBR71-6664	940- 950	60278	.4	2.2	97.0	.4	1.1a	5.3	None
SBR71-6665	950- 960	60279	.5	1.8	97.4	.3	1.2a	4.3	None
SBR71-6666	960- 970	60280	.1	2.1	97.4	.4	.3a	5.0	None
SBR71-6667	970- 980	60281	.2	1.3	97.4	1.1	.6a	3.1	None
SBR71-6668	980- 990	60282	.5	1.2	97.4	.9	1.3a	2.9	None
SBR71-6669	990-1000	60283	.8	1.7	97.0	.5	2.1a	4.1	None
SBR71-6670	1000-1010	60284	2.4	1.2	95.9	.5	6.0	2.9	0.954
SBR71-6671	1010-1020	60285	2.1	.9	95.6	1.4	5.3	2.2	.950
SBR71-6672	1020-1030	60286	2.1	1.2	95.4	1.3	5.4	2.9	.942
SBR71-6673	1030-1040	60287	2.0	1.3	95.7	1.0	5.1	3.1	.949
SBR71-6674	1040-1050	60288	1.5	.8	96.5	1.2	3.9a	1.9	None
SBR71-6675	1050-1060	60289	1.5	1.1	96.6	.8	3.8a	2.6	None
SBR71-6676	1060-1070	60290	1.9	1.4	96.1	.6	4.9a	3.4	None
SBR71-6677	1070-1080	60291	1.5	1.5	95.8	1.2	3.9a	3.6	None
SBR71-6678	1080-1090	60292	1.7	1.4	95.9	1.0	4.3a	3.4	None
SBR71-6679	1090-1100	60293	1.6	1.2	95.9	1.3	4.2a	2.9	None
SBR71-6680	1100-1110	60294	1.5	1.3	96.2	1.0	3.9a	3.0	None
SBR71-6681	1110-1120	60298	1.8	1.1	94.7	2.4	4.6a	2.7	None

See footnote at end of table.

Drill cutting samples received June 1, 1971; Assays made on air-dried samples

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Surface elevation 5,495

Kelly Bushing elevation 5,505 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		Spent shale	Gas + loss			
Laramie	Their		Oil	Water							
SBR71-6682	1120-1130	60299	1.8	0.9	94.8	2.5	4.7a	2.2		None	
SBR71-6683	1130-1140	60300	2.4	1.2	95.6	.8	6.2a	2.9		None	
SBR71-6684	1140-1150	60301	2.6	.7	95.6	1.1	6.9a	1.7		None	
SBR71-6685	1150-1160	60302	2.8	.9	94.6	1.7	7.3a	2.2		None	
SBR71-6686	1160-1170	60303	2.3	1.1	94.5	2.1	6.0a	2.7		None	
SBR71-6687	1170-1180	60304	2.3	1.1	94.9	1.7	6.0a	2.7		None	
SBR71-6688	1180-1190	60305	1.8	.7	96.8	.7	4.7a	1.7		None	
SBR71-6689	1190-1200	60306	2.6	1.2	95.6	.6	6.8a	2.8		None	
SBR71-6690	1200-1210	60307	2.3	1.3	95.1	1.3	6.0a	3.1		None	
SBR71-6691	1210-1220	60308	.2	3.3	95.6	.9	.6a	7.8		None	
SBR71-6692	1220-1230	60309	.0	3.3	96.0	.7	Trace	8.0		None	
SBR71-6693	1230-1240	60310	.0	1.9	97.3	.8	No oil	4.6		None	
SBR71-6694	1240-1250	60311	.0	1.3	98.2	.5	Trace	3.1		None	
SBR71-6695	1250-1260	60312	.2	3.3	95.7	.8	.6a	7.9		None	
SBR71-6696	1260-1270	60313	.6	3.2	95.9	.3	1.6a	7.6		None	
SBR71-6697	1270-1280	60314	2.5	1.7	94.8	1.0	6.5a	4.1		None	
SBR71-6698	1280-1290	60315	2.3	1.5	95.2	1.0	6.0a	3.5		None	
SBR71-6699	1290-1300	60316	1.9	.8	95.4	1.9	4.9a	1.8		None	
SBR71-6700	1300-1310	60317	1.9	.3	95.3	2.5	5.1a	.7		None	
SBR71-6701	1310-1320	60318	1.5	.6	94.3	3.6	3.9a	1.5		None	
SBR71-6702	1320-1330	60319	3.0	1.1	94.1	1.8	7.9a	2.6		None	
SBR71-6703	1330-1340	60320	2.8	1.5	94.3	1.4	7.3a	3.6		None	
SBR71-6704	1570-1580	60321	5.0	.9	92.6	1.5	12.8	2.2	0.925	None	
SBR71-6705	1580-1590	60322	5.5	1.1	92.1	1.3	14.3	2.6	.923	None	
SBR71-6706	1590-1600	60323	4.8	1.3	91.9	2.0	12.4	3.1	.930	None	
SBR71-6707	1600-1610	60324	.6	.5	98.2	.7	1.5a	1.2		None	
SBR71-6708	1610-1620	60325	3.8	1.0	94.0	1.2	9.8	2.4	.937	None	
SBR71-6709	1620-1630	60326	3.8	.9	94.6	.7	9.6	2.2	.939	None	
SBR71-6710	1630-1640	60327	4.0	.7	93.8	1.5	10.2	1.7	.944	None	
SBR71-6711	1640-1650	60328	3.6	.7	94.4	1.3	9.2	1.7	.942	None	

See footnote at end of table.

Drill cutting samples received June 1, 1971; Assays made on air-dried samples

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Samples from Ponka Drilling and Production Company's Amerada-Coyote Basin Well No. 28-1 (con.)

Surface elevation 5,495

Kelly Bushing elevation 5,505 feet

Sample number	Run No.	Yield of product				Specific gravity of oil at 60°/60° F	Properties of spent shale		Remarks
		Weight percent		Gal per ton			Tendency to		
Laramie	Their	Oil	Water	Spent shale	Gas + loss	Oil <sup>1</sup> /	Water	coke	
SBR71-6712	1650-1670	60329	1.8	0.9	96.6	0.7	4.7a	2.2	None
SBR71-6713	1670-1700	60330	5.9	1.5	91.5	1.1	15.4a	3.5	None
SBR71-6714	1700-1720	60331	4.7	1.6	92.1	1.6	12.2a	3.8	None
SBR71-6715	1720-1740	60332	2.5	1.4	96.0	.1	6.4a	3.4	None
SBR71-6716	1740-1760	60333	1.9	1.7	95.7	.7	4.8a	4.0	None
SBR71-6717	1760-1780	60334	1.8	1.7	94.0	2.5	4.7a	4.2	None
SBR71-6718	1780-1800	60335	3.6	2.1	91.5	2.8	9.3a	5.1	None
SBR71-6719	1800-1820	60336	3.0	1.3	94.6	1.1	7.9a	3.1	None
SBR71-6720	1820-1840	60337	1.3	.9	95.5	2.3	3.5a	2.2	None
SBR71-6721	1840-1860	60338	1.2	1.1	95.9	1.8	3.2a	2.6	None
SBR71-6722	1860-1880	60339	1.0	.9	96.4	1.7	2.7a	2.1	None
SBR71-6723	1880-1900	60340	1.1	1.0	97.4	.5	2.8a	2.4	None
SBR71-6724	1900-1920	60341	1.4	.7	94.6	3.3	3.7a	1.6	None
SBR71-6725	1920-1940	60342	3.6	1.9	92.5	2.0	9.5a	4.5	None
SBR71-6726	1940-1960	60343	3.6	1.6	92.8	2.0	9.5a	3.9	None
SBR71-6727	1960-1980	60344	2.8	1.8	93.9	1.5	7.2a	4.4	None
SBR71-6728	1980-2000	60345	2.6	1.5	93.8	2.1	6.8a	3.7	None
SBR71-6729	2000-2020	60346	2.3	1.1	94.0	2.6	5.9a	2.8	None
SBR71-6730	2020-2040	60347	1.8	.7	94.3	3.2	4.6a	1.7	None
SBR71-6731	2040-2060	60348	2.2	1.2	94.7	1.9	5.8a	2.8	None
SBR71-6732	2060-2080	60349	2.5	.8	93.4	3.3	6.4a	1.9	None
SBR71-6733	2080-2100	60350	2.6	1.5	92.7	3.2	6.9a	3.5	None
SBR71-6734	2100-2120	60351	2.9	.9	92.5	3.7	7.5a	2.1	None
SBR71-6735	2120-2140	60352	2.2	1.0	94.2	2.6	5.7a	2.3	None
SBR71-6736	2140-2160	60353	.9	.8	93.7	4.6	2.5a	2.0	None
SBR71-6737	2160-2180	60354	2.0	1.0	93.9	3.1	5.3a	2.3	None
SBR71-6738	2180-2200	60355	1.4	2.2	94.0	2.4	3.7a	5.3	None
SBR71-6739	2200-2220	60356	2.0	1.9	93.9	2.2	5.1a	4.5	None
SBR71-6740	2220-2240	60357	1.6	1.3	93.9	3.2	4.1a	3.0	None
SBR71-6741	2240-2260	60358	1.6	2.2	94.5	1.7	4.3a	5.3	None

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Surface elevation 5,495

Kelly Bushing elevation 5,505 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	Their		Oil	Water	Spent shale	Gas + loss	Oil <sup>1/</sup>	Water			
SBR71-6742	2260-2280	60359	2.0	1.6	94.6	1.8	5.2a	3.7		None	
SBR71-6743	2280-2300	60360	1.4	1.6	94.9	2.1	3.8a	3.9		None	
SBR71-6744	2300-2320	60361	1.1	2.3	95.3	1.3	2.8a	5.4		None	
SBR71-6745	2320-2340	60362	.4	2.5	96.4	.7	1.0a	6.0		None	
SBR71-6746	2340-2360	60363	.4	2.6	95.1	1.9	1.1a	6.1		None	
SBR71-6747	2360-2380	60364	.4	2.4	95.6	1.6	1.0a	5.7		None	
SBR71-6748	2380-2400	60365	.5	2.6	95.9	1.0	1.2a	6.3		None	
SBR71-6749	2400-2420	60366	.6	2.6	95.7	1.1	1.7a	6.1		None	
SBR71-6750	2420-2440	60367	1.0	2.3	96.4	.3	2.6a	5.5		None	
SBR71-6751	2440-2460	60368	.8	2.6	96.2	.4	2.1a	6.3		None	
SBR71-6752	2460-2480	60369	1.4	2.7	95.3	.6	3.7a	6.4		None	
SBR71-6753	2480-2500	60370	1.6	2.2	94.8	1.4	4.2a	5.3		None	
SBR71-6754	2500-2520	60371	1.4	2.1	95.2	1.3	3.7a	5.0		None	
SBR71-6755	2520-2540	60372	.8	2.9	95.9	.4	2.2a	6.9		None	
SBR71-6756	2540-2560	60373	.6	2.6	95.7	1.1	1.6a	6.1		None	
SBR71-6757	2560-2580						Trace				
SBR71-6758-61	2580-2660						No oil				
SBR71-6762-63	2660-2700						b				
SBR71-6764	2700-2720	60374	1.0	1.8	96.6	.6	2.5a	4.4		None	
SBR71-6765	2720-2740	60375	1.0	1.8	96.7	.5	2.6a	4.4		None	
SBR71-6766	2740-2760	60376	.4	1.5	97.6	.5	1.1a	3.6		None	
SBR71-6767	2760-2780	60377	.2	.9	96.9	2.0	.6a	2.2		None	
SBR71-6768	2780-2800	60378	2.4	2.0	95.0	.6	6.2a	4.8		None	
SBR71-6769	2800-2820	60379	2.0	2.6	94.4	1.0	5.2a	6.3		None	
SBR71-6770	2820-2840	60380	2.1	2.3	95.1	.5	5.4a	5.4		None	
SBR71-6771	2840-2860	60381	.8	1.3	97.8	.1	2.1a	3.1		None	
SBR71-6772	2860-2880	60382	1.4	1.9	92.3	4.4	3.5a	4.6		None	
SBR71-6773	2880-2900	60383	1.9	1.8	93.6	2.7	5.0a	4.3		None	
SBR71-6774	2900-2920	60384	1.9	2.1	94.2	1.8	4.9a	5.0		None	
SBR71-6775	2920-2940	60385	1.9	2.7	94.4	1.0	5.0a	6.5		None	

See footnote at end of table.

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Surface elevation 5,495

Kelly Bushing elevation 5,505 feet

Sample number	Run No.	Yield of product				Specific gravity of oil at 60°/60° F	Properties of spent shale		Remarks
		Weight percent		Gal per ton			Tendency to		
Laramie	Their	Oil	Water	Spent shale	Gas + loss	Oil <sup>1/</sup>	Water	coke	
SBR71-6776	2940-2960	2.0	2.8	94.0	1.2	5.2a	6.7	None	
SBR71-6777	2960-2980	2.0	2.3	94.3	1.4	5.3a	5.4	None	
SBR71-6778	2980-3000	.5	2.7	95.4	1.4	1.4a	6.5	None	
SBR71-6779	3000-3020	.8	1.1	93.5	4.6	2.0a	2.7	None	
SBR71-6780	3020-3040	.4	1.6	93.9	4.1	1.0a	3.9	None	
SBR71-6781	3040-3060	.4	2.0	96.3	1.3	1.2a	4.7	None	
SBR71-6782	3060-3080	.4	2.2	96.1	1.3	1.0a	5.3	None	
SBR71-6783	3080-3100	.0	1.7	95.9	2.4	Trace	4.1	None	
SBR71-6784	3100-3120					Trace			
SBR71-6785-92	3120-3280					b			
SBR71-6793	3280-3300					Trace			
SBR71-6794-6805	3300-3550					No oil			

<sup>1/</sup> "a"--indicates specific gravity estimated as 0.92. Oil yields were estimated by a rapid test-tube method: "No oil", "Trace", "b"--less than 1 gal oil/ton, "c"--1 to 3 gal oil/ton.

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