



OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Belco Petroleum Corporation's Great Yellowstone No. 1 well drilled in SE1/4SE1/4 of sec. 29, T. 11 S., R. 20 E., Uintah County, Utah

Kelly Bushing elevation 5,564 feet

Mahogany marker 4584'

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60° F.		Properties of spent shale	Remarks
Laramie	Their		Weight percent		Gas + loss	Gal. per ton		Tendency to coke		
			Oil	Water		Spent shale	Oil		Water	
SBR61-5985	400-410	74076	1.4	1.8	96.1	0.7	3.7a	4.2	None	
SBR61-5986	410-420	74077	1.3	2.0	96.0	.7	3.5a	4.8	None	
SBR61-5987	420-430	74078	1.6	2.0	96.0	.4	4.0a	4.8	None	
SBR61-5988	430-440	74079	1.5	2.6	95.0	.9	3.8a	6.2	None	
SBR61-5989	440-450	74080	1.8	2.0	96.0	.2	4.7a	4.8	None	
SBR61-5990	450-460	74081	1.5	2.0	96.3	.2	3.8a	4.8	None	
SBR61-5991	460-470	74082	1.5	1.5	96.0	1.0	4.0a	3.6	None	
SBR61-5992	470-480	74083	2.6	1.4	95.8	.2	6.9	3.4	0.928	None
SBR61-5993	480-490	74084	2.5	1.6	95.6	.3	6.4a	3.8		None
SBR61-5994	490-500	74085	2.4	1.6	95.5	.5	6.2	3.8	.926	None
SBR61-5995	500-510	74086	2.7	1.4	95.5	.4	6.9	3.4	.919	None
SBR61-5996	510-520	74087	2.2	1.6	95.9	.3	5.8	3.8	.914	None
SBR61-5997	520-530	74088	2.2	1.6	96.0	.2	5.7	3.8	.916	None
SBR61-5998	530-540	74089	2.1	1.7	95.8	.4	5.6	4.1	.914	None
SBR61-5999	540-550	74090	2.3	1.5	95.8	.4	6.0	3.6	.915	None
SBR61-6000	550-560	74091	1.6	1.7	96.1	.6	4.2a	4.1		None
SBR61-6001	560-570	74092	1.6	1.8	96.2	.4	4.0a	4.3		None
SBR61-6002	570-580	74093	1.6	1.6	96.2	.6	4.3a	3.8		None
SBR61-6003	580-590	74094	1.5	1.7	96.3	.5	3.9a	4.1		None
SBR61-6004	590-600	74095	1.7	1.4	96.4	.5	4.5a	3.4		None
SBR61-6005	600-610	74096	1.5	1.3	96.6	.6	3.9a	3.1		None
SBR61-6006	610-620	74097	2.3	1.5	95.5	.7	6.0	3.6	.924	None
SBR61-6007	620-630	74098	2.3	1.3	95.5	.9	5.9	3.1	.927	None
SBR61-6008	630-640	74099	2.3	1.2	96.1	.4	6.0	2.9	.925	None
SBR61-6009	640-650	74100	2.4	1.2	95.7	.7	6.3	2.9	.925	None
SBR61-6010	650-660	74101	2.3	1.1	96.1	.5	6.0	2.6	.926	None
SBR61-6011	660-670	74102	2.5	1.2	95.9	.4	6.4	2.9	.924	None
SBR61-6012	670-680	74103	2.2	1.2	96.0	.6	5.7a	2.9		None
SBR61-6013	680-690	74104	2.2	1.2	95.9	.7	5.7	2.9	.924	None
SBR61-6014	690-700	74105	2.1	1.3	95.8	.8	5.5	3.1	.925	None

a - Specific gravity estimated due to insufficient oil.

Drill cutting samples received March 17, 1961; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Belco Petroleum Corporation's Great Yellowstone No. 1 well (Con.)

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			Tendency to coke
Laramie	Their		Oil	Water					Oil	Water	
SBR61-6015	700-710	74106	2.2	1.2	95.4	1.2	5.6	2.9	.925	None	
SBR61-6016	710-720	74107	2.2	1.1	96.1	.6	5.8	2.6	.928	None	
SBR61-6017	720-730	74108	2.1	1.2	96.0	.7	5.5	2.9	.925	None	
SBR61-6018	730-740	74109	2.5	1.1	95.8	.6	6.5	2.6	.926	None	
SBR61-6019	740-750	74110	2.5	1.1	95.8	.6	6.5	2.6	.929	None	
SBR61-6020	750-760	74111	2.4	1.2	95.6	.8	6.2	2.9	.931	None	
SBR61-6021	760-770	74112	2.0	1.3	96.0	.7	5.2	3.1	.933	None	
SBR61-6022	770-780	74113	4.4	1.0	93.5	1.1	11.3	2.4	.929	None	
SBR61-6023	780-790	74114	4.5	1.2	93.0	1.3	11.7	2.9	.922	None	
SBR61-6024	790-800	74115	4.4	1.2	93.3	1.1	11.5	2.9	.924	None	
SBR61-6025	800-810	74116	4.8	1.5	92.4	1.3	12.6	3.6	.914	None	
SBR61-6026	810-820	74117	3.8	1.6	93.8	.8	10.0	3.8	.914	None	
SBR61-6027	820-830	74118	3.9	1.6	93.4	1.1	10.1	3.8	.914	None	
SBR61-6028	830-840	74119	3.9	2.1	93.8	.2	10.2	5.0	.923	None	
SBR61-6029	840-850	74120	4.0	1.7	93.4	.9	10.3	4.1	.923	None	
SBR61-6030	850-860	74121	4.0	1.7	93.5	.8	10.3	4.1	.923	None	
SBR61-6031	860-870	74122	1.9	1.8	95.8	.5	4.9a	4.3		None	
SBR61-6032	870-880	74123	1.8	1.9	95.6	.7	4.6a	4.6		None	
SBR61-6033	880-890	74124	3.0	2.1	93.9	1.0	7.9	5.0	.922	None	
SBR61-6034	890-900	74125	3.1	2.1	93.7	1.1	8.1	4.9	.923	None	
SBR61-6035	900-910	74126	3.2	2.0	93.8	1.0	8.4	4.8	.925	None	
SBR61-6036	910-920	74127	3.4	1.4	94.8	.4	8.7	3.4	.926	None	
SBR61-6037	920-930	74128	2.6	1.7	95.2	.5	6.8	4.1	.925	None	
SBR61-6038	930-940	74129	2.7	1.7	95.1	.5	6.9	4.1	.920	None	
SBR61-6039	940-950	74130	1.5	1.6	96.6	.3	4.0a	3.8		None	
SBR61-6040	950-960	74131	1.6	1.5	96.7	.2	4.2a	3.6		None	
SBR61-6041	960-970	74132	5.7	1.6	91.6	1.1	14.8	4.0	.924	None	
SBR61-6042	970-980	74133	6.2	1.7	90.8	1.3	16.1	4.2	.914	None	
SBR61-6043	980-990	74134	5.8	1.6	91.6	1.0	15.2	3.8	.917	None	
SBR61-6044	990-1000	74135	3.3	1.2	95.1	.4	8.7	2.9	.915	None	

a - Specific gravity estimated due to insufficient oil.

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Samples from Balco Petroleum Corporation's Great Yellowstone No. 1 well (Con.)

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	Water		coke	
SBR61-6045	1000-1010	74136	4.8	1.3	93.6	0.3	13.6	3.1	0.909	None	
SBR61-6046	1010-1020	74137	4.5	1.2	93.7	.6	11.9	2.9	.909	None	
SBR61-6047	1020-1030	74138	4.6	1.2	93.6	.6	12.1	2.9	.908	None	
SBR61-6048	1030-1040	74139	5.4	1.1	92.7	.8	14.2	2.6	.909	None	
SBR61-6049	1040-1050	74140	5.0	1.2	92.8	1.0	13.1	2.9	.911	None	
SBR61-6050	1050-1060	74141	5.2	1.0	92.7	1.1	14.2	2.4	.886	None	
SBR61-6051	1060-1070	74142	5.4	1.0	92.7	.9	14.2	2.4	.912	None	
SBR61-6052	1070-1080	74143	1.5	1.1	97.1	.3	4.0a	2.6		None	
SBR61-6053	1080-1090	74144	1.2	1.1	97.4	.3	3.3a	2.5		None	
SBR61-6054	1090-1100	74145	1.4	1.1	96.9	.6	3.7a	2.6		None	
SBR61-6055	1100-1110	74146	1.5	1.1	96.8	.6	3.9a	2.6		None	
SBR61-6056	1110-1120	74147	1.4	1.4	96.7	.5	3.7a	3.2		None	
SBR61-6057	1120-1130	74148	1.6	1.4	96.7	.3	4.1a	3.4		None	
SBR61-6058	1130-1140	74149	2.0	3.2	94.3	.5	5.2a	7.7		None	
SBR61-6059	1140-1150						b				
SBR61-6060-61	1150-1170						c				
SBR61-6062-63	1170-1190						b				
SBR61-6064	1190-1200						No oil				
SBR61-6065-68	1200-1240						b				
SBR61-6069	1240-1250						Trace				
SBR61-6070-74	1250-1300						No oil				

a - Specific gravity estimated due to insufficient oil; b - less than 1.0 gallon of oil per ton of shale; c - more than 1.0 but less than 3.0 gallons of oil per ton of shale.

Drill cutting samples received March 17, 1961; assays made on air-dried samples.