

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Mountain Fuel Supply Company's Wells Draw Unit well No. 1 drilled in NW1/4, SE1/4, of
sec. 8, T. 10S., R. 17E., Duchesne County, Utah

0' of 30
10' of 25
60' of 15 (in 2 pts: 30+30)

LLR 203

Kelly Bushing elevation 5,897 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							
SBR62-3471	320- 330						Trace				
SBR62-3472-3500	330- 620						No oil				
SBR62-3501	620- 630						b				
SBR62-3502-13	630- 750						No oil				
SBR62-3514	750- 760						Trace				
SBR62-3515-26	760- 880						No oil				
SBR62-3527	880- 890						Trace				
SBR62-3528-30	890- 920						No oil				
SBR62-3531	920- 930						b				
SBR62-3532-33	930- 950						No oil				
SBR62-3534	950- 960						Trace				
SBR62-3535-37	960- 990						b				
SBR62-3538-39	990-1010						Trace				
SBR62-3540-41	1010-1030						No oil				
SBR62-3542	1030-1040						Trace				
SBR62-3543	1040-1050						b				
SBR62-3544-47	1050-1090						c				
SBR62-3548	1090-1100	79120	1.1	1.5	97.0	0.4	2.8a	3.6		None	
SBR62-3549	1100-1110	79121	1.3	1.6	96.5	.6	3.4a	3.8		None	
SBR62-3550	1110-1120	79122	3.2	1.2	94.9	.7	8.5	2.9	0.896	None	
SBR62-3551	1120-1130	79123	1.1	1.2	97.2	.5	2.9a	2.9		None	
SBR62-3552	1130-1140	79124	1.5	1.2	97.0	.3	3.9a	2.9		None	
SBR62-3553	1140-1150	79125	2.3	1.1	96.0	.6	6.1	2.6	.896	None	
SBR62-3554	1150-1160	79126	2.0	1.0	96.4	.6	5.4	2.4	.897	None	
SBR62-3555	1160-1170	79127	1.4	1.4	96.7	.5	3.8a	3.4		None	
SBR62-3556	1170-1180						c				
SBR62-3557	1180-1190	79128	1.6	1.3	96.5	.6	4.2a	3.1		None	
SBR62-3558	1190-1200	79129	1.9	1.0	96.4	.7	5.0a	2.4		None	
SBR62-3559	1200-1210	79130	1.5	1.2	96.5	.8	4.0a	2.9		None	
SBR62-3560	1210-1220	79131	1.1	1.2	97.0	.7	2.7a	2.9		None	

See footnotes at end of table.

Drill cutting samples received January 12, 1962; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Mountain Fuel Supply Company's Wells Draw Unit well No. 1 (Con.)

Kelly Bushing elevation 5,897 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										
SBR62-3561-62	1220-1240						c				
SBR62-3563	1240-1250	79132	1.1	1.0	97.4	0.5	2.7a	2.4		None	
SBR62-3564	1250-1260						Assay				
SBR62-3565	1260-1270	79133	1.2	1.5	96.8	.5	3.2a	3.6		None	
SBR62-3566	1270-1280	79134	.6	1.1	98.0	.3	1.4a	2.6		None	
SBR62-3567	1280-1290	79135	1.4	1.4	96.3	.9	3.5a	3.5		None	
SBR62-3568	1290-1300	79136	1.4	1.4	96.5	.7	3.8a	3.4		None	
SBR62-3569	1300-1310	79137	1.9	1.7	95.8	.6	5.0a	4.1		None	
SBR62-3570	1310-1320	79138	2.5	1.7	95.0	.8	6.7	4.1	0.898	None	
SBR62-3571	1320-1330	79139	2.4	1.7	95.1	.8	6.4	4.1	.898	None	
SBR62-3572	1330-1340	79140	2.7	1.8	94.9	.6	7.1	4.3	.899	None	
SBR62-3573	1340-1350	79141	.9	1.5	96.9	.7	2.4a	3.6		None	
SBR62-3574	1350-1360	79142	.5	1.9	97.0	.6	1.3a	4.6		None	
SBR62-3575	1360-1370	79144	.8	1.3	97.0	.9	2.1a	3.1		None	
SBR62-3576-87	1370-1490						c				
SBR62-3588	1490-1500	79145	.9	1.5	96.9	.7	2.2a	3.6		None	
SBR62-3589	1500-1510	79146	.9	1.6	96.7	.8	2.2a	3.8		None	
SBR62-3590	1510-1520	79147	.9	1.7	96.5	.9	2.3a	4.1		None	
SBR62-3591	1520-1530	79148	1.3	1.5	96.4	.8	3.4a	3.6		None	
SBR62-3592-96	1530-1580						c				
SBR62-3597	1590-1600	79149	.8	1.6	97.0	.6	2.1a	3.8		None	
SBR62-3598	1600-1610	79150	1.3	1.4	96.7	.6	3.4a	3.4		None	
SBR62-3599	1610-1620	79151	1.1	1.5	96.9	.5	2.9a	3.6		None	
SBR62-3600	1620-1630						c				
SBR62-3601	1630-1640						b				
SBR62-3602	1640-1650						No oil				
SBR62-3603-06	1650-1690						c				
SBR62-3607	1690-1700	79152	1.0	1.8	96.2	1.0	2.6a	4.3		None	
SBR62-3608	1700-1710	79153	1.2	1.4	96.7	.7	3.0a	3.5		None	
SBR62-3609	1710-1720	79154	.5	1.6	97.3	.6	1.4a	3.8		None	

See footnotes at end of table.

Drill cutting samples received January 12, 1962; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3573P, Sheet No. 2 of 8 sheets

March 15, 1962

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Mountain Fuel Supply Company's Wells Draw Unit well No. 1 (Con.)

Kelly Bushing elevation 5,897 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				
Laramie	Their		Oil	Water					Oil	Water
SBR62-3610-11	1720-1740						c			
SBR62-3612	1740-1750	79155	1.0	1.9	96.4	0.7	2.6a	4.6		None
SBR62-3613	1750-1760	79156	1.0	1.6	97.0	.4	2.6a	3.8		None
SBR62-3614	1760-1770	79157	1.0	1.6	97.0	.4	2.6a	3.8		None
SBR62-3615	1770-1780						c			
SBR62-3616	1780-1790	79158	1.4	1.7	96.4	.5	3.6a	4.1		None
SBR62-3617	1790-1800	79159	1.3	1.5	97.0	.2	3.3a	3.6		None
SBR62-3618	1800-1810	79160	1.2	1.4	97.2	.2	3.2a	3.4		None
SBR62-3619-20	1810-1830						c			
SBR62-3621	1830-1840	79161	1.9	1.1	96.4	.6	5.0a	2.6		None
SBR62-3622	1840-1850	79162	2.5	1.2	95.8	.5	6.5	2.9	0.915	None
SBR62-3623	1850-1860	79163	2.2	1.3	96.2	.3	5.7	3.1	.917	None
SBR62-3624	1860-1870	79164	2.2	1.3	96.1	.4	5.7	3.1	.915	None
SBR62-3625	1870-1880	79165	2.2	1.3	95.9	.6	5.9	3.1	.914	None
SBR62-3626	1880-1890	79166	2.5	1.0	96.1	.4	6.5	2.4	.914	None
SBR62-3627	1890-1900	79167	3.9	1.1	94.4	.6	10.2	2.6	.915	None
SBR62-3628	1900-1910	79168	3.4	.8	95.1	.7	9.0	1.9	.915	None
SBR62-3629	1910-1920	79169	3.3	1.0	95.2	.5	8.6	2.4	.914	None
SBR62-3630	1920-1930	79170	4.6	.9	93.7	.8	12.2	2.2	.912	None
SBR62-3631	1930-1940	79171	2.8	1.1	95.6	.5	7.4	2.6	.912	None
SBR62-3632	1940-1950	79172	2.8	1.0	95.8	.4	7.2	2.5	.911	None
SBR62-3633	1950-1960	79173	3.1	1.3	95.1	.5	8.2	3.1	.913	None
SBR62-3634	1960-1970	79174	3.0	1.3	95.0	.7	8.0	3.1	.911	None
SBR62-3635	1970-1980	79175	1.8	1.2	96.8	.2	4.7a	2.9		None
SBR62-3636	1980-1990	79176	2.1	1.8	95.7	.4	5.6	4.3	.912	None
SBR62-3637	1990-2000	79177	2.3	1.6	95.8	.3	6.1	3.8	.911	None
SBR62-3638	2010-2020	79178	3.0	1.5	95.0	.5	7.9	3.6	.912	None
SBR62-3639	2020-2030	79179	1.6	2.2	95.3	.9	4.0a	5.3		None
SBR62-3640	2030-2040	79180	2.4	1.6	95.7	.3	6.2a	3.9		None
SBR62-3641	2040-2050	79181	2.9	1.1	95.7	.3	7.5	2.7	.911	None

See footnotes at end of table.

Drill cutting samples received January 12, 1962; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Mountain Fuel Supply Company's Wells Draw Unit well No. 1 (Con.)

Kelly Bushing elevation 5,897 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		
Laramie	Their		Oil	Water			Oil			Water	
SBR62-3642	2050-2060	79182	3.1	1.2	95.2	0.5	8.1	2.9	0.911	None	
SBR62-3643	2060-2070	79183	1.8	.7	97.2	.3	4.7a	1.7		None	
SBR62-3644	2070-2080	79184	1.2	.3	98.3	.2	3.1a	.7		None	
SBR62-3645	2080-2084						c				
SBR62-3646	2090-2100						No oil				
SBR62-3647	2110-2120	79185	.6	.3	99.0	.1	1.6a	.7		None	
SBR62-3648	2120-2130	79186	2.8	1.4	95.2	.6	7.5	3.4	.912	None	
SBR62-3649-50	2130-2150						Trace				
SBR62-3651-52	2150-2170						No oil				
SBR62-3653	2170-2180						Trace				
SBR62-3654	2180-2190						None				
SBR62-3655	2190-2200	79187	1.1	.9	97.6	.4	2.9a	2.2		None	
SBR62-3656	2200-2210	79188	2.6	.6	96.2	.6	7.0	1.3	.912	None	
SBR62-3657	2210-2220	79189	.6	.6	98.6	.2	1.5a	1.4		None	
SBR62-3658	2220-2230	79190	.3	.5	99.0	.2	.8a	1.2		None	
SBR62-3659	2230-2240	79191	3.5	.8	95.0	.7	9.3	1.8	.906	None	
SBR62-3660	2240-2250	79192	3.6	.7	95.1	.6	9.5	1.8	.906	None	
SBR62-3661	2250-2260	79193	6.5	.5	91.9	1.1	17.2	1.3	.907	None	
SBR62-3662	2260-2270	79194	5.8	.9	92.6	.7	15.2	2.2	.907	None	
SBR62-3663	2270-2280	79195	5.2	.7	93.6	.5	13.7	1.8	.908	None	
SBR62-3664	2280-2290	79196	1.5	.3	98.1	.1	3.8a	.8		None	
SBR62-3665	2290-2300	79197	1.9	1.0	96.8	.3	4.9a	2.4		None	
SBR62-3666	2300-2310	79198	.5	.4	99.0	.1	1.4a	1.0		None	
SBR62-3667-68	2310-2330						No oil				
SBR62-3669	2330-2340						Trace				
SBR62-3670-72	2340-2370						No oil				
SBR62-3673	2370-2380	79199	.7	.5	98.2	.6	1.8a	1.2		None	
SBR62-3674	2380-2390	79200	9.2	1.0	88.3	1.5	24.4	2.4	.899	None	
SBR62-3675	2390-2400	79201	3.2	.8	95.1	.9	8.6	1.8	.899	None	
SBR62-3676	2400-2410	79202	4.4	.9	93.8	.9	11.7	2.1	.899	None	

See footnotes at end of table.

Drill cutting samples received January 12, 1962; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Mountain Fuel Supply Company's Wells Draw Unit well No. 1 (Con.)

Kelly Bushing elevation 5,897 feet

			Yield of product					Specific gravity of oil at 60°/60°F.	Properties of spent shale Tendency to coke	Remarks	
Sample number		Run No.	Weight percent		Spent shale	Gas + loss	Gal. per ton				
			Oil	Water			Oil				Water
Laramie	Their										
SBR62-3677	2410-2420	79203	2.7	0.8	95.8	0.7	7.3	1.8	0.900	None	
SBR62-3678	2420-2430	79204	2.7	.4	95.8	1.1	7.1a	1.0		None	
SBR62-3679	2430-2440	79205	3.5	.9	94.6	1.0	9.3	2.2	.905	None	
SBR62-3680	2440-2450	79206	2.4	.6	96.4	.6	6.2	1.6	.906	None	
SBR62-3681	2450-2460						c				
SBR62-3682-83	2460-2480						No oil				
SBR62-3684	2480-2490						Trace				
SBR62-3685-88	2490-2530						No oil				
SBR62-3689-90	2530-2550						Trace				
SBR62-3691	2550-2560						b				
SBR62-3692	2560-2570						c				
SBR62-3693-94	2580-2600						c				
SBR62-3695	2600-2610						b				
SBR62-3696	2610-2620						Trace				
SBR62-3697	2620-2630						No oil				
SBR62-3698-99	2630-2650						c				
SBR62-3700-01	2650-2670						Trace				
SBR62-3702	2670-2680						b				
SBR62-3703	2680-2690						Trace				
SBR62-3704	2690-2700						b				
SBR62-3705-06	2700-2720						No oil				
SBR62-3707-08	2720-2740						c				
SBR62-3709	2740-2750	79207	.6	.3	98.8	.3	1.7a	.7		None	
SBR62-3710	2750-2760	79208	1.2	.4	97.9	.5	3.1a	1.0		None	
SBR62-3711	2760-2770	79209	1.6	.5	97.5	.4	4.2a	1.2		None	
SBR62-3712	2770-2780						b				
SBR62-3713-14	2780-2800						No oil				
SBR62-3715	2800-2810						b				
SBR62-3716-31	2810-2970						No oil				
SBR62-3732	2970-2980	79210	1.2	.9	97.3	.6	3.2a	2.0		None	

See footnotes at end of table.

Drill cutting samples received January 12, 1962; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Mountain Fuel Supply Company's Wells Draw Unit well No. 1 (Con.)

Kelly Bushing elevation 5,897 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
SBR62-3733	2980-2990	79211	1.4	0.9	96.7	1.0	3.6a	2.2		None	
SBR62-3734	2990-3000	79212	1.8	1.2	96.4	.6	4.6a	3.0		None	
SBR62-3735	3000-3010						b				
SBR62-3736-37	3010-3030						c				
SBR62-3738	3030-3040						b				
SBR62-3739-41	3040-3070						No oil				
SBR62-3742	3070-3080						Trace				
SBR62-3743	3080-3090						No oil				
SBR62-3744	3090-3100						b				
SBR62-3745	3100-3110						c				
SBR62-3746-52	3110-3180						No oil				
SBR62-3753	3180-3190						b				
SBR62-3754	3190-3200						Trace				
SBR62-3755-66	3200-3320						No oil				
SBR62-3767	3320-3330						Trace				
SBR62-3768-79	3330-3450						No oil				
SBR62-3780-82	3450-3480						Trace				
SBR62-3783-94	3480-3600						No oil				
SBR62-3795-98	3600-3640						Trace				
SBR62-3799	3640-3650						No oil				
SBR62-3800	3650-3660						b				
SBR62-3801	3660-3670						Trace				
SBR62-3802-10	3670-3760						No oil				
SBR62-3811-12	3760-3780						Trace				
SBR62-3813-25	3780-3910						No oil				
SBR62-3826-29	3910-3950						Trace				
SBR62-3830-44	3950-4100						No oil				
SBR62-3845	4100-4110						c				
SBR62-3846	4110-4120						Trace				
SBR62-3847	4120-4130						No oil				

See footnotes at end of table.

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Samples from Mountain Fuel Supply Company's Wells Draw Unit well No. 1 (Con.)

Kelly Bushing elevation 5,897 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					
Laramie	Their		Oil	Water					Oil	Water	
SBR62-3848	4130-4140						Trace				
SBR62-3849-54	4140-4200						No oil				
SBR62-3855	4200-4210						b				
SBR62-3856	4210-4220						c				
SBR62-3857	4220-4230						b				
SBR62-3858-76	4230-4420						No oil				
SBR62-3877	4420-4430						Trace				
SBR62-3878	4430-4440						No oil				
SBR62-3879-81	4440-4470						c				
SBR62-3882	4470-4480						b				
SBR62-3883-84	4480-4500						Trace				
SBR62-3885	4500-4510						b				
SBR62-3886	4510-4520	79213	2.7	0.9	95.3	1.1	7.2	2.3	0.885	None	
SBR62-3887	4520-4530	79214	3.2	1.0	94.9	.9	8.7	2.4	.886	None	
SBR62-3888	4530-4540	79215	3.8	1.2	94.2	.8	10.3	2.9	.885	None	
SBR62-3889	4540-4550						c				
SBR62-3890-91	4550-4570						b				
SBR62-3892-96	4570-4620						No oil				
SBR62-3897	4620-4630						b				
SBR62-3898-99	4630-4650						c				
SBR62-3900	4650-4660						b				
SBR62-3901	4660-4670						Trace				
SBR62-3902-03	4670-4690						b				
SBR62-3904	4690-4700	79216	3.0	.9	95.2	.9	8.1	2.2	.886	None	
SBR62-3905	4700-4710	79217	1.0	1.3	96.9	.8	2.6a	3.1		None	
SBR62-3906	4710-4720	79218	3.9	.9	93.9	1.3	10.6	2.2	.886	None	
SBR62-3907-08	4720-4740						b				
SBR62-3909	4740-4750						c				
SBR62-3910-30	4750-4960						No oil				
SBR62-3931-32	4960-4980						Trace				

See footnotes at end of table.

Drill cutting samples received January 12, 1962; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Mountain Fuel Supply Company's Wells Draw Unit well No. 1 (Con.)

Kelly Bushing elevation 5,897 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							
SBR62-3933-36	4980-5020						No oil				
SBR62-3937	5020-5030						Trace				
SBR62-3938-43	5030-5090						No oil				
SBR62-3944	5090-5100						Trace				
SBR62-3945-49	5100-5150						No oil				
SBR62-3950	5150-5160						Trace				
SBR62-3951	5160-5170						b				
SBR62-3952	5170-5180						c				
SBR62-3953	5180-5190	79219	0.6	0.7	98.0	0.7	1.6a	1.7		None	
SBR62-3954	5190-5200	79220	1.6	1.2	96.1	1.1	4.1a	2.9		None	
SBR62-3955	5200-5210	79221	1.6	1.0	96.2	1.2	4.2a	2.4		None	
SBR62-3956	5210-5220						c				
SBR62-3957	5220-5230						b				
SBR62-3958	5230-5240						Trace				
SBR62-3959	5240-5250						No oil				
SBR62-3960-61	5250-5270						Trace				
SBR62-3962	5270-5280						No oil				
SBR62-3963	5280-5290						Trace				
SBR62-3964	5290-5300	79222	.7	1.1	97.1	1.1	1.8a	2.6		None	
SBR62-3965	5300-5310	79223	1.1	1.1	96.8	1.0	2.9a	2.6		None	
SBR62-3966	5310-5320						b				
SBR62-3967-69	5320-5350						c				
SBR62-3970	5350-5360						b				
SBR62-3971-72	5360-5380						Trace				
SBR62-3973	5380-5390						No oil				
SBR62-3974-76	5390-5420						Trace				
SBR62-3977-80	5420-5460						No oil				
SBR62-3981	5490-5500						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.

Assay - Sample contained more than 3.0 gallons of oil per ton of shale.

Drill cutting samples received January 12, 1962; assays made on air-dried samples.