

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from National Farmers Union Exploration Company's N.F.U. No. 10 well drilled in
SE1/4SW1/4 (892.4 ft N/S line and 2,227.4 ft E/W line) of sec. 32, T. 11 S., R. 24 E., Uintah County, Utah

Surface elevation 6,214.6 feet

Surface elevation 6,214.0 feet

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 ^{1/}		Water	
SBR63-7096	375 -378	88051	2.3	0.3	96.3	1.1	5.8	0.8	0.932	None		
SBR63-7097	378 -380	88052	2.8	.3	95.8	1.1	7.2	.8	.921	None		
SBR63-7098	380 -382.5	88053	7.0	.4	90.9	1.7	18.0	1.1	.926	None		
SBR63-7099	382.5-386	88054	2.0	.2	97.0	.8	5.2a	.5		None		
SBR63-7100	386 -388	88055	1.2	.2	98.3	.3	3.1a	.6		None		
SBR63-7101	388 -391.3	88056	1.6	.4	97.7	.3	4.3a	.8		None		
SBR63-7102	391.3-392.8	88057	9.3	.4	88.9	1.4	23.9	1.0	.935	Slight		
SBR63-7103	392.8-396	88058	1.3	.3	97.5	.9	3.5a	.6		None		
SBR63-7104	396 -398	88059	1.5	.3	97.4	.8	3.9a	.7		None		
SBR63-7105	398 -399.3	88060	.4	.5	98.9	.2	1.1a	1.2		None		
SBR63-7106	399.3-401.0	88061	2.6	.7	96.2	.5	6.7	1.6	.942	None		
SBR63-7107	401.0-403.0	88062	2.0	1.2	96.1	.7	5.2a	2.9		None		
SBR63-7108	403.0-405.5	88063	2.5	.8	96.4	.3	6.5	1.8	.929	None		
SBR63-7109	405.5-406.6	88064	6.9	.9	90.8	1.4	18.1	2.0	.921	None		
SBR63-7110	406.6-409.2	88065	3.0	.2	95.4	1.4	7.6	.6	.938	None		
SBR63-7111	409.2-411.2	88066	2.7	.5	95.8	1.0	6.8	1.2	.941	None		
SBR63-7112	411.2-413.2	88067	3.1	.3	95.5	1.1	7.8	.7	.942	None		
SBR63-7113	413.2-415.0	88068	3.4	.4	95.5	.7	8.7	.8	.945	None		
SBR63-7114	421.0-423.0	88069	4.2	.3	94.1	1.4	10.8	.7	.940	None		
SBR63-7115	423.0-425.0	88070	2.4	.3	96.4	.9	6.0	.7	.935	None		
SBR63-7116	425.0-426.8	88071	2.3	.3	96.5	.9	5.9	.8	.934	None		
SBR63-7117	426.8-428.0	88072	3.5	.4	95.2	.9	8.9	1.0	.940	None		
SBR63-7118	428.0-430.0	88073	4.1	.4	94.7	.8	10.4	1.0	.938	None		
SBR63-7119	430.0-431.0	88074	1.2	.6	97.5	.7	3.2a	1.3		None		
SBR63-7120	431.0-433.0	88075	2.1	.6	96.4	.9	5.4	1.3	.935	None		
SBR63-7121	433.0-435.0	88076	3.7	.4	95.6	.3	9.4	1.0	.938	None		
SBR63-7122	435.0-437.0	88077	3.9	.6	94.6	.9	10.0	1.4	.937	None		
SBR63-7123	437.0-439.0	88078	3.5	.4	94.9	1.2	9.0	1.0	.936	None		
SBR63-7124	439.0-440.5	88079	3.8	.6	94.5	1.1	9.7	1.4	.934	None		
SBR63-7125	440.5-443.0	88080	3.2	1.0	94.4	1.4	8.2	2.4	.929	None		

See footnotes at end of table.

Core samples received January 12, 1960; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from National Farmers Union Exploration Company's N.F.U. No. 10 well (con.)

Surface elevation 6,214.6 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 ^{1/}	Water				
SBR63-7126	443.0-445.0	88081	3.4	1.2	94.3	1.1	8.7	2.8	0.937	None		
SBR63-7127	445.0-447.0	88082	3.0	.6	95.1	1.3	7.6	1.4	.934	None		
SBR63-7128	447.0-449.0	88083	3.2	.4	95.0	1.4	8.1	1.1	.929	None		
SBR63-7129	449.0-451.0	88084	5.2	.6	92.7	1.5	13.3	1.4	.933	None		
SBR63-7130	453.0-456.0	88085	2.3	.7	95.8	1.2	5.9	1.8	.928	None		
SBR63-7131	456.0-458.0	88086	3.5	.6	94.8	1.1	8.8	1.6	.934	None		
SBR63-7132	458.0-460.0	88087	3.6	.6	94.7	1.1	9.3	1.4	.936	None		
SBR63-7133	460.0-462.0	88088	2.2	.9	95.9	1.0	5.6	2.2	.929	None		
SBR63-7134	462.0-464.0	88089	2.2	.5	96.1	1.2	5.6	1.2	.937	None		
SBR63-7135	464.0-466.0	88090	3.0	.5	95.4	1.1	7.8	1.2	.936	None		
SBR63-7136	466.0-468.0	88091	2.0	.5	96.7	.8	5.2a	1.3		None		
SBR63-7137	468.0-470.0	88092	2.0	.8	96.4	.8	5.2a	2.0		None		
SBR63-7138	470.0-472.0	88093	1.7	.7	96.6	1.0	4.4a	1.7		None		
SBR63-7139	472.0-474.0	88094	2.0	.7	96.6	.7	5.1a	1.8		None		
SBR63-7140	474.0-476.0	88095	2.0	1.1	96.2	.7	5.1a	2.6		None		
SBR63-7141	476.0-478.0	88096	2.3	.5	96.1	1.1	5.8	1.3	.938	None		
SBR63-7142	478.0-480.0	88097	1.6	.8	96.8	.8	4.3a	1.9		None		
SBR63-7143	480.0-482.0	88098	2.7	.7	95.8	.8	7.0	1.6	.935	None		
SBR63-7144	482.0-483.0	88099	9.9	.6	87.1	2.4	25.4	1.6	.931	None		
SBR63-7145	483.0-486.0	88100	2.5	.8	95.4	1.3	6.5	1.8	.931	None		
SBR63-7146	486.0-487.8	88101	2.0	.4	96.5	1.1	5.1a	1.1		None		
SBR63-7147	487.8-488.8	88102	9.7	.5	87.7	2.1	25.0	1.3	.926	None		
SBR63-7148	488.8-490.0	88103	3.4	.5	95.1	1.0	8.7	1.2	.934	None		
SBR63-7149	490.0-492.0	88104	2.3	.7	96.1	.9	5.8	1.8	.939	None		
SBR63-7150	492.0-494.0	88105	3.3	.5	95.1	1.1	8.5	1.1	.937	None		
SBR63-7151	494.0-496.0	88106	2.7	.5	95.7	1.1	6.9	1.3	.935	None		
SBR63-7152	496.0-498.0	88107	1.7	.7	96.6	1.0	4.5a	1.6		None		
SBR63-7153	498.0-500.0	88108	2.8	.8	95.6	.8	7.1	2.0	.930	None		
SBR63-7154	500.0-502.0	88109	4.5	.4	93.6	1.5	11.4	1.1	.936	None		
SBR63-7155	502.0-504.0	88110	2.0	.8	96.3	.9	5.2	1.8	.935	None		

See footnotes at end of table.

Core samples received January 12, 1960; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from National Farmers Union Exploration Company's N.F.U. No. 10 well (con.)

Surface elevation 6,214.6 feet

Surface elevation 6,214.6 feet

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		
Laramie	Their		Oil	Water					Oil	Water	
SBR63-7156	504.0-506.0	88111	3.0	0.6	95.3	1.1	7.8	1.3	0.931	None	
SBR63-7157	506.0-508.0	88112	4.2	.7	94.3	.8	10.9	1.6	.923	None	
SBR63-7158	508.0-510.0	88113	3.0	.7	95.1	1.2	7.6	1.8	.933	None	
SBR63-7159	510.0-511.3	88114	2.2	.7	96.2	.9	5.6	1.8	.928	None	
SBR63-7160	511.3-512.3	88115	12.1	1.0	84.4	2.5	31.3	2.3	.926	None	
SBR63-7161	512.3-514.0	88116	2.5	.5	95.9	1.1	6.4	1.2	.936	None	
SBR63-7162	514.0-516.0	88117	2.4	.7	96.0	.9	6.3	1.7	.931	None	
SBR63-7163	516.0-518.0	88118	5.3	.4	92.7	1.6	13.5	1.1	.933	None	
SBR63-7164	518.0-520.0	88119	2.8	.9	95.1	1.2	7.2	2.2	.930	None	
SBR63-7165	520.0-522.0	88120	6.9	.8	90.7	1.6	17.9	1.8	.925	None	
SBR63-7166	522.0-524.0	88121	3.1	.6	94.9	1.4	7.8	1.4	.940	None	
SBR63-7167	524.0-526.0	88122	4.4	.5	94.1	1.0	11.4	1.2	.934	None	
SBR63-7168	526.0-528.0	88123	4.7	.8	93.0	1.5	12.0	2.0	.930	None	
SBR63-7169	528.0-530.0	88124	4.5	.5	93.8	1.2	11.5	1.3	.931	None	
SBR63-7170	530.0-532.0	88125	4.3	.4	93.9	1.4	11.1	.8	.930	None	
SBR63-7171	532.0-534.0	88126	4.5	.5	93.5	1.5	11.6	1.3	.925	None	
SBR63-7172	534.0-536.0	88127	4.2	.7	92.3	2.8	10.9	1.7	.917	None	
SBR63-7173	536.0-538.0	88128	4.3	.8	94.3	.6	11.1	2.0	.921	None	
SBR63-7174	538.0-540.0	88129	5.0	.7	92.2	2.1	12.9	1.7	.923	None	
SBR63-7175	540.0-541.4	88130	4.8	.8	92.3	2.1	12.6	1.8	.924	None	
SBR63-7176	541.4-543.4	88131	8.9	.6	87.9	2.6	23.2	1.4	.923	None	
SBR63-7177	543.4-545.4	88132	7.6	.6	89.0	2.8	19.9	1.6	.914	None	
SBR63-7178	545.4-547.4	88133	4.2	.9	93.1	1.8	11.0	2.0	.918	None	
SBR63-7179	547.4-548.1	88134	5.2	.8	92.1	1.9	13.6	1.8	.915	None	
SBR63-7180	548.1-550.0	88135	3.0	1.1	94.4	1.5	7.8	2.6	.920	None	
SBR63-7181	550.0-551.4	88136	8.4	.9	88.5	2.2	21.8	2.2	.921	None	
SBR63-7182	551.4-553.4	88137	3.4	.7	94.3	1.6	8.7	1.7	.925	None	
SBR63-7183	553.4-554.7	88138	2.4	1.2	95.2	1.2	6.2	2.9	.931	None	
SBR63-7184	554.7-556.2	88139	4.9	.7	92.6	1.8	12.7	1.7	.925	None	
SBR63-7185	556.2-558.0	88140	2.1	1.2	95.4	1.3	5.5	2.9	.924	None	

Core samples received January 12, 1960; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from National Farmers Union Exploration Company's N.F.U. No. 10 well (con.)

Surface elevation 6,214.6 feet

Surface elevation 6,214.6 feet

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		
			Oil	Water			Oil ^{1/}	Water				
Laramie	Their											
SBR63-7186	558.0-560.2	88141	2.3	1.2	95.3	1.2	6.0	2.8	0.923	None		
SBR63-7187	560.2-561.4	88142	7.9	.8	89.0	2.3	20.4	1.9	.926	None		
SBR63-7188	561.4-564.0	88143	2.7	.7	94.8	1.8	6.9	1.8	.928	None		
SBR63-7189	564.0-566.0	88144	4.9	1.0	92.5	1.6	12.6	2.4	.926	None		
SBR63-7190	566.0-568.0	88145	2.1	1.2	95.4	1.3	5.4	2.9	.933	None		
SBR63-7191	568.0-569.5	88146	2.3	1.3	94.9	1.5	5.8	3.1	.937	None		
SBR63-7192	569.5-570.5	88147	7.6	.9	89.2	2.3	19.7	2.0	.930	None		
SBR63-7193	570.5-573.5	88148	3.1	1.2	94.4	1.3	7.9	3.0	.926	None		
SBR63-7194	573.5-574.5	88149	14.6	1.4	80.7	3.3	37.9	3.4	.926	None		
SBR63-7195	574.5-576.0	88150	2.0	1.7	95.0	1.3	5.2	4.1	.930	None		
SBR63-7196	576.0-578.0	88151	2.5	1.6	94.8	1.1	6.4	3.8	.934	None		
SBR63-7197	578.0-580.0	88152	3.8	1.6	93.3	1.3	9.9	3.8	.926	None		
SBR63-7198	580.0-580.9	88153	3.8	1.4	93.5	1.3	9.9	3.4	.926	None		
SBR63-7199	580.9-582.0	88154	11.1	1.3	84.8	2.8	28.9	3.1	.923	None		
SBR63-7200	582.0-584.0	88155	2.9	1.1	94.9	1.1	7.5	2.6	.926	None		
SBR63-7201	584.0-586.0	88156	3.5	1.6	93.8	1.1	8.9	3.8	.931	None		
SBR63-7202	586.0-588.0	88157	3.9	1.2	93.1	1.8	10.1	2.9	.927	None		
SBR63-7203	588.0-590.0	88158	4.5	1.6	92.8	1.1	11.6	4.0	.921	None		
SBR63-7204	590.0-592.0	88159	4.4	1.3	94.1	.2	11.4	3.1	.932	None		
SBR63-7205	592.0-594.0	88160	2.9	1.3	94.8	1.0	7.5	3.1	.933	None		
SBR63-7206	594.0-596.0	88161	3.9	1.2	93.2	1.7	10.0	2.9	.933	None		
SBR63-7207	596.0-598.0	88162	3.8	1.3	93.4	1.5	9.6	3.1	.937	None		
SBR63-7208	598.0-600.0	88163	3.4	1.1	94.0	1.5	8.9	2.5	.932	None		
SBR63-7209	600.0-602.0	88164	3.4	1.7	93.7	1.2	8.8	4.1	.931	None		
SBR63-7210	602.0-604.0	88165	3.2	.7	94.2	1.9	8.2	1.8	.932	None		
SBR63-7211	604.0-606.0	88166	1.8	1.0	96.0	1.2	4.8a	2.4	.	None		
SBR63-7212	606.0-608.0	88167	3.5	1.2	93.8	1.5	9.1	2.9	.926	None		
SBR63-7213	608.0-610.0	88168	3.3	1.5	93.5	1.7	8.5	3.5	.933	None		
SBR63-7214	610.0-612.0	88169	2.5	.8	95.3	1.4	6.3	2.0	.934	None		
SBR63-7215	612.0-614.4	88170	4.2	.8	93.8	1.2	10.9	1.8	.928	None		

See footnotes at end of table.

Core samples received January 12, 1960; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from National Farmers Union Exploration Company's N.F.U. No. 10 well (con.)

Surface elevation 6,214.6 feet

Sample number			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		
			Oil	Water			Oil ^{1/}	Water				
Laramie	Their	Run No.	Oil	Water	Spent shale	Gas + loss	Oil ^{1/}	Water				
SBR63-7216	614.4-615.4	88171	12.0	0.7	84.6	2.7	30.8	1.7	0.931	None		
SBR63-7217	615.4-618.0	88172	4.7	.7	93.0	1.6	12.2	1.7	.928	None		
SBR63-7218	618.0-620.0	88173	7.4	.5	89.6	2.5	19.3	1.2	.921	None		
SBR63-7219	620.0-621.0	88174	4.2	1.5	92.8	1.5	10.8	3.6	.933	None		
SBR63-7220	621.0-623.1	88175	7.3	2.5	89.2	1.0	18.9	6.0	.921	None		
SBR63-7221	623.1-624.4	88176	5.8	.8	92.0	1.4	15.0	2.0	.923	None		
SBR63-7222	624.4-626.0	88177	2.6	.7	95.5	1.2	6.8	1.7	.932	None		
SBR63-7223	626.0-628.0	88178	3.5	.5	94.3	1.7	9.0	1.2	.931	None		
SBR63-7224	628.0-630.0	88179	2.5	.7	95.4	1.4	6.4	1.8	.933	None		
SBR63-7225	630.0-632.0	88180	7.9	.7	89.3	2.1	20.5	1.7	.920	None		
SBR63-7226	632.0-634.0	88181	1.9	.5	96.3	1.3	4.9a	1.3		None		
SBR63-7227	634.0-636.0	88182	1.8	.5	96.6	1.1	4.7a	1.1		None		
SBR63-7228	636.0-638.0	88183	1.8	.5	96.5	1.2	4.6a	1.2		None		
SBR63-7229	638.0-640.8	88184	.9	.5	97.9	.7	2.3a	1.3		None		
SBR63-7230	640.8-642.7	88185	4.5	.7	93.0	1.8	11.7	1.6	.919	None		
SBR63-7231	642.7-643.9	88186	9.8	.8	86.3	3.1	25.5	1.9	.919	None		
SBR63-7232	643.9-645.4	88187	5.3	.9	91.9	1.9	13.9	2.0	.919	None		
SBR63-7233	645.4-647.0	88188	5.1	.8	92.6	1.5	13.3	1.9	.923	None		
SBR63-7234	647.0-648.0	88189	12.0	.7	84.1	3.2	31.1	1.7	.923	None		
SBR63-7235	648.0-649.0	88190	8.3	.6	89.0	2.1	21.8	1.4	.917	None		
SBR63-7236	649.0-650.3	88191	16.7	.7	79.1	3.5	44.2	1.7	.908	None		
SBR63-7237	650.3-652.0	88192	7.2	.7	90.2	1.9	19.0	1.6	.911	None		
SBR63-7238	652.0-654.0	88193	4.5	.4	93.3	1.8	11.6	1.1	.928	None		
SBR63-7239	654.0-656.0	88194	6.4	.6	91.1	1.9	16.7	1.3	.924	None		
SBR63-7240	656.0-658.0	88195	4.0	.8	93.7	1.5	10.4	2.0	.922	None		
SBR63-7241	658.0-660.0	88196	3.4	.5	94.8	1.3	8.8	1.3	.923	None		

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

Core samples received January 12, 1960; assays made on air-dried samples