

UE-4

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

0' of 309
18' of 259
290' of 15

Samples from DeKalb Agricultural Association's No. 1 Uintah Unit Well drilled in
SE 1/4 SE 1/4 NE 1/4 of sec. 16, T. 10 S., R. 21 E., Uintah County, Utah

Kelly Bushing elevation 5,169 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	
SBR61-473-74	610- 630						No oil				
SBR61-475-79	630- 680						3.0c				
SBR61-480-81	680- 700						No oil				
SBR61-482	710- 720						No oil				
SBR61-483-85	720- 750						1.0 B				
SBR61-486	750- 760						No oil				
SBR61-487	760- 770						Trace				
SBR61-488	770- 780						No oil				
SBR61-489	780- 790						1.0 B				
SBR61-490	790- 800						Trace				
SBR61-491-92	800- 820						1.0 B				
SBR61-493	820- 830						Trace				
SBR61-494	830- 840						3.0c				
SBR61-495	840- 850						Trace				
SBR61-496	850- 860						3.0c				
SBR61-497	860- 870						Trace				
SBR61-498	870- 880						1.0 B				
SBR61-499	880- 890						No oil				
SBR61-500	890- 900						Trace				
SBR61-501	900- 910						No oil				
SBR61-502-03	910- 930						Trace				
SBR61-504-06	930- 960						3.0c				
SBR61-507	960- 970						1.0 B				
SBR61-508-09	970-990						3.0c				
SBR61-510	990-1000						Trace				
SBR61-511	1000-1010						3.0c				
SBR61-512-22	1030-1140						3.0c				
SBR61-523-25	1140-1170						1.0 B				
SBR61-526	1170-1180						No oil				
SBR61-527	1180-1190						3.0c				

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 June 10, 1960; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association's No. 1 Uintah Unit Well (Con.)

Kelly Bushing elevation 5,169 feet

Kelly Bushing elevation 5,169 feet

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60° F.	Properties of spent shale		Remarks
			Weight percent		Gas + loss	Gal. per ton		Tendency to coke		
Laramie	Their		Oil	Water		Spent shale			Oil	Water
SBR61-528	1190-1200						Trace			
SBR61-529-31	1200-1230						No oil			
SBR61-532	1230-1240						Trace			
SBR61-533	1240-1250						Trace			
SBR61-534	1250-1260	70920	0.7	0.2	97.7	1.4	1.9a	0.6		None
SBR61-535	1260-1270	70921	2.1	.2	96.6	1.1	5.4a	.6		None
SBR61-536	1270-1280	70922	2.2	.3	96.6	.9	5.7a	.8		None
SBR61-537	1280-1290	70923	1.7	.5	97.3	.5	4.5a	1.2		None
SBR61-538	1290-1300	70924	2.2	.5	96.5	.8	5.8	1.1	0.916	None
SBR61-539	1300-1310	70925	2.2	.4	96.7	.7	5.7	1.0	.919	None
SBR61-540	1310-1320	70926	2.3	.4	96.7	.6	5.9	1.0	.928	None
SBR61-541	1320-1330	70927	2.1	.4	96.5	1.0	5.3	1.0	.932	None
SBR61-542	1330-1340	70928	1.9	.3	96.9	.9	5.0a	.7		None
SBR61-543	1340-1350	70929	2.2	.4	96.4	1.0	5.6	1.1	.926	None
SBR61-544	1350-1360	70930	2.0	.2	97.1	.7	5.1a	.4		None
SBR61-545	1360-1370	70931	1.7	.5	97.3	.5	4.4a	1.3		None
SBR61-546	1370-1380	70932	1.9	.3	96.8	1.0	5.1	.6	.914	None
SBR61-547	1380-1390	70933	2.3	.2	96.7	.8	6.0	.6	.921	None
SBR61-548	1390-1400	70934	2.0	.3	96.9	.8	5.2a	.7		None
SBR61-549	1400-1410	70935	2.6	.3	96.4	.7	6.8	.6	.921	None
SBR61-550	1410-1420	70936	2.7	.2	96.2	.9	7.1	.4	.916	None
SBR61-551	1420-1430	70937	2.8	.2	96.0	1.0	7.4	.4	.915	None
SBR61-552	1430-1440	70938	2.7	.3	95.8	1.2	7.0	.6	.924	None
SBR61-553	1450-1460	70939	2.8	.4	96.0	.8	7.3	.8	.932	None
SBR61-554	1460-1470	70940	2.5	.3	96.5	.7	6.4	.7	.926	None
SBR61-555	1470-1480	70941	2.8	.3	96.2	.7	7.3	.6	.926	None
SBR61-556	1480-1490	70942	2.3	.2	96.8	.7	6.0	.5	.929	None
SBR61-557	1490-1500	70943	2.6	.3	96.3	.8	6.6	.7	.927	None
SBR61-558	1500-1510	70944	5.0	.2	93.2	1.6	13.2	.5	.915	None
SBR61-559	1510-1520	70945	5.0	.3	93.3	1.4	13.0	.7	.917	None

a - Specific gravity estimated due to insufficient oil.

c - More than 1.0 but less than 3.0 gallons of oil per ton of shale.

Drill cutting samples received June 10, 1960; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association's No. 1 Uintah Unit Well (Con.)

Kelly Bushing elevation 5,169 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		Oil	Water	shale	loss	Oil	Water			
SBR61-560	1520-1530	70946	5.4	0.2	92.9	1.5	14.1	0.5	0.916	None	
SBR61-561	1530-1540	70947	3.5	.2	95.6	.7	9.1	.5	.918	None	
SBR61-562	1540-1550	70948	3.3	.2	95.9	.6	8.6	.5	.919	None	
SBR61-563	1550-1560	70949	3.8	.2	95.2	.8	9.9	.4	.921	None	
SBR61-564	1560-1570	70950	3.5	.2	95.3	1.0	9.2	.5	.920	None	
SBR61-565	1570-1580	70951	3.3	.1	95.5	1.1	8.6	.2	.924	None	
SBR61-566	1580-1590	70952	3.2	.1	95.7	1.0	8.4	.2	.921	None	
SBR61-567	1590-1600	70953	4.1	.1	94.7	1.1	10.5	.2	.925	None	
SBR61-568	1600-1610	70954	4.1	.1	94.5	1.3	10.5	.2	.924	None	
SBR61-569	1610-1620	70955	4.2	.2	94.8	.8	11.0	.5	.925	None	
SBR61-570	1620-1630	70956	4.0	.2	94.9	.9	10.5	.4	.925	None	
SBR61-571	1630-1640	70957	4.1	.1	94.8	1.0	10.5	.4	.924	None	
SBR61-572	1640-1650	70958	3.9	.2	94.8	1.1	10.2	.4	.924	None	
SBR61-573	1650-1660	70959	3.7	.3	94.9	1.1	9.7	.6	.920	None	
SBR61-574	1660-1670	70960	2.7	.1	95.9	1.3	6.9	.2	.925	None	
SBR61-575	1670-1680	70961	4.2	.3	94.2	1.3	10.8	.7	.925	None	
SBR61-576	1680-1690	70962	3.4	.2	95.2	1.2	8.7	.6	.926	None	
SBR61-577	1690-1700	70963	3.9	.3	94.9	.9	10.2	.7	.921	None	
SBR61-578	1700-1710	70964	3.5	.3	95.6	.6	8.9	.7	.928	None	
SBR61-579	1710-1720	70965	3.9	.2	94.9	1.0	10.1	.6	.922	None	
SBR61-580	1720-1730	70966	4.7	.4	93.7	1.2	12.2	.8	.923	None	
SBR61-581	1730-1740	70967	3.7	.2	94.1	2.0	9.6	.5	.923	None	
SBR61-582	1740-1750	70968	5.4	.3	93.0	1.3	14.0	.8	.916	None	
SBR61-583	1750-1760	70969	6.5	.4	91.5	1.6	17.1	.8	.916	None	
SBR61-584	1760-1770	70970	9.2	.4	88.0	2.4	24.3	1.0	.911	None	
SBR61-585	1770-1780	70971	7.8	.5	90.1	1.6	20.5	1.3	.910	None	
SBR61-586	1780-1790	70972	4.6	.6	93.9	.9	12.1	1.3	.913	None	
SBR61-587	1790-1800	70973	3.8	.4	94.7	1.1	10.1	1.0	.910	None	
SBR61-588	1800-1810	70974	6.9	.5	90.9	1.7	18.1	1.2	.917	None	
SBR61-589	1810-1820	70975	6.3	.4	91.5	1.8	16.3	1.0	.921	None	

Drill cutting samples received June 10, 1960; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association's No. 1 Uintah Unit Well (Con.)

Kelly Bushing elevation 5,169 feet

Kelly Bushing elevation 5,169 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	Water		
Laramie	Their											
SBR61-590	1820-1830	70976	5.4	0.4	92.9	1.3	14.0	1.1	0.918	None		
SBR61-591	1830-1840	70977	2.3	.5	96.4	.8	5.9	1.3	.922	None		
SBR61-592	1840-1850	70978	4.3	.4	94.1	1.2	11.3	.8	.920	None		
SBR61-593	1850-1860	70979	4.4	.5	94.1	1.0	11.5	1.1	.925	None		
SBR61-594	1860-1870	70980	4.4	.3	94.3	1.0	11.4	.8	.921	None		
SBR61-595	1870-1880	70981	4.9	.4	93.8	.9	12.9	.8	.919	None		
SBR61-596	1880-1890	70982	4.8	.3	93.7	1.2	12.5	.8	.919	None		
SBR61-597	1890-1900	70983	5.7	.3	92.6	1.4	14.8	.7	.921	None		
SBR61-598	1900-1910	70984	4.8	.4	93.7	1.1	12.5	.8	.919	None		
SBR61-599	1910-1920	70985	6.0	.4	92.2	1.4	15.8	.8	.915	None		
SBR61-600	1920-1930	70986	5.6	.4	92.2	1.8	14.8	.8	.914	None		
SBR61-601	1930-1940	70987	6.2	.4	92.4	1.0	16.2	1.0	.913	Slight		
SBR61-602	1940-1950	70988	4.5	.4	94.2	.9	11.8	1.1	.913	None		
SBR61-603	1950-1960	70989	5.1	.4	93.2	1.3	13.6	1.0	.908	None		
SBR61-604	1960-1970	70990	6.9	.4	91.1	1.6	18.4	1.0	.904	Slight		
SBR61-605	1970-1980	70991	10.1	.4	87.6	1.9	26.8	1.1	.900	Slight		
SBR61-606	1980-1990	70992	8.5	.3	89.2	2.0	22.5	.8	.903	None		
SBR61-607	1990-2000	70993	7.8	.5	89.8	1.9	20.7	1.2	.903	None		
SBR61-608	2000-2010	70994	5.0	.5	93.2	1.3	13.1	1.3	.908	None		
SBR61-609	2010-2020	70995	3.2	.5	95.5	.8	8.3	1.2	.913	None		
SBR61-610	2020-2030	70996	2.0	.7	96.5	.8	5.2	1.7	.912	None		
SBR61-611	2030-2040	70997	1.6	.5	97.5	.4	4.0a	1.3		None		
SBR61-612	2040-2050	70998	1.5	.5	97.6	.4	3.9a	1.2		None		
SBR61-613	2050-2060	70999	1.2	.3	97.7	.8	3.1a	.8		None		
SBR61-614	2060-2070	71000	1.0	.6	97.5	.9	2.5a	1.4		None		
SBR61-615	2070-2080	71001	.8	.6	98.0	.6	2.1a	1.6		None		
SBR61-616	2080-2090	71002	.8	.8	97.8	.6	2.1a	1.9		None		
SBR61-617	2090-2100	71003	4.2	.7	94.0	1.1	11.1	1.7	.906	None		
SBR61-618	2100-2110	71004	3.0	.7	95.5	.8	7.8	1.7	.904	None		
SBR61-619	2110-2120	71005	4.0	.6	94.1	1.3	10.7	1.4	.900	None		

290'
of
15'18'
of
25'

a - Specific gravity estimated due to insufficient oil.

Drill cutting samples received June 10, 1960; assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3456P Sheet No. 4 of 6 sheets January 31, 1961

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association's No. 1 Uintah Unit Well (Con.)

Kelly Bushing elevation 5,169 feet

Sample number			Yield of product				Specific gravity		Properties of spent shale		Remarks
Laramie	Their	Run No.	Weight percent		Spent shale	Gas + loss	Gal. per ton		of oil at 60°/60° F.	Tendency to coke	
			Oil	Water			Oil	Water			
SBR61-620	2120-2130	71006	3.9	0.6	94.4	1.1	10.3	1.6	0.899	None	
SBR61-621	2130-2140	71007	4.7	.7	93.6	1.0	12.3	1.7	.904	None	
SBR61-622	2140-2150	71008	4.4	.9	93.7	1.0	11.5	2.2	.909	None	
SBR61-623	2150-2160	71009	2.6	1.3	95.3	.8	6.9	3.1	.914	None	
SBR61-624	2160-2170	71010	2.3	.8	95.8	1.1	5.9	2.0	.922	None	
SBR61-625	2170-2180	71011	2.2	1.1	96.1	.6	5.8	2.6	.919	None	
SBR61-626-27	2180-2200	20' of sample					1.0 B				
SBR61-628-29	2200-2220						Trace				
SBR61-630	2220-2230						No oil				
SBR61-631-33	2230-2260						1.0 B				
SBR61-634-36	2260-2290						3.0 c				
SBR61-637	2290-2300	71012	3.2	2.2	94.0	.6	8.5	5.2	.913	None	
SBR61-638	2300-2310	71013	1.7	1.6	96.2	.5	4.6	3.7	.909	None	
SBR61-639	2310-2320	71014	1.8	1.6	96.1	.5	4.8	3.8	.910	None	
SBR61-640	2320-2330	71015	2.0	1.0	96.3	.7	5.3	2.4	.904	None	
SBR61-641	2330-2340	71016	1.7	1.0	96.5	.8	4.5a	2.4		None	
SBR61-642	2340-2350	71017	1.5	.5	97.3	.7	3.8a	1.2		None	
SBR61-643	2350-2360	71018	1.3	.5	97.2	1.0	3.3a	1.3		None	
SBR61-644-45	2360-2380						c				
SBR61-646	2380-2390	71019	1.9	2.0	95.3	.8	4.9a	4.9		None	
SBR61-647	2390-2400	71020	2.3	2.3	94.5	.9	6.2	5.4	.895	None	
SBR61-648	2400-2410	71021	2.9	2.4	93.7	1.0	7.8	5.8	.905	None	
SBR61-649	2410-2420	71022	4.5	1.9	92.6	1.0	11.9	4.6	.895	None	
SBR61-650	2420-2430	71023	1.9	1.2	95.9	1.0	4.9a	3.0		None	
SBR61-651	2430-2440	71024	1.0	.2	97.7	1.1	2.5a	.6		None	
SBR61-652	2440-2450						3.0 c				
SBR61-653	2450-2460						1.0 B				
SBR61-654-55	2460-2480						Trace				
SBR61-656	2480-2490	71025	.1	.5	98.7	.7	.2a	1.3		None	
SBR61-657	2490-2500						Trace				

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 June 10, 1960; assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3456P Sheet No. 5 of 6 sheets January 31, 1961

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association's No. 1 Uintah Unit Well (Con.)

Kelly Bushing elevation 5,169 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
Laramie	Their		Weight percent		Spent	Gas +	Oil	Water			
			Oil	Water	shale	loss					
SBR61-658-59	2520-2540						Trace				
SBR61-660	2540-2550	71026	2.8	1.5	94.7	1.0	7.4	3.6	0.896	None	
SBR61-661	2550-2560	71027	2.4	1.7	95.3	.6	6.4	4.1	.897	None	
SBR61-662	2560-2570	71028	1.8	2.0	95.8	.4	4.7a	4.8		None	
SBR61-663	2570-2580	71029	2.6	1.6	95.0	.8	7.1	3.8	.892	None	
SBR61-664	2580-2590	71030	5.1	1.5	92.4	1.0	13.4	3.7	.906	None	
SBR61-665	2590-2600	71031	1.7	1.4	96.4	.5	4.4a	3.4		None	
SBR61-666-67	2600-2620						1.0 B				
SBR61-668	2620-2630						Trace				
SBR61-669	2630-2640						3.0 c				
SBR61-670	2640-2650						1.0 B				
SBR61-671-73	2650-2680						No oil				
SBR61-674-75	2680-2700						Trace				
SBR61-676	2730-2740						Trace				
SBR61-677-89	2740-2870						No oil				
SBR61-690-91	2870-2890						1.0 B				
SBR61-692-93	2900-2920						No oil				
SBR61-694	2920-2930						1.0 B				
SBR61-695-712	2930-3110						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 June 10, 1960; assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3456P Sheet No. 6 of 6 sheets January 31, 1961