

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Texaco Oil Company's Federal No. 1 well drilled in
NE1/4 NE1/4 of sec 26, T 19 N, R 112 W, Sweetwater County, Wyoming

Kelly Bushing elevation 6,369 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					
Laramie	Their	Oil	Water			Gas + loss	Oil ^{1/}	Water		
SBR69-1236-40	162- 260				No oil					
SBR69-1241-42	260- 300				c					
SBR69-1243-84	300- 585				No oil					
SBR69-1285-89	585- 610				b					
SBR69-1290-94	610- 635				No oil					
SBR69-1295-1304	640- 690				No oil					
SBR69-1305	690- 695	38948	2.2	1.9	94.9	1.0	5.6	4.6	0.921	None
SBR69-1306	695- 700	38949	2.2	1.7	94.7	1.4	5.7	4.1	.925	None
SBR69-1307	700- 705	38950	2.5	1.6	94.3	1.6	6.4	3.8	.928	None
SBR69-1308-24	705- 790				No oil					
SBR69-1325	795- 800				No oil					
SBR69-1326-28	800- 815				b					
SBR69-1329-34	815- 845				c					
SBR69-1335-36	845- 855				No oil					
SBR69-1337-41	855- 880				b					
SBR69-1342	880- 885				Trace					
SBR69-1343	885- 890				b					
SBR69-1344	890- 895				c					
SBR69-1345	895- 900				No oil					
SBR69-1346	900- 905				b					
SBR69-1347	905- 910				No oil					
SBR69-1348-51	910- 930				b					
SBR69-1352	930- 935	38951	.2	1.5	97.5	.8	.6a	3.6		None
SBR69-1353	935- 940	38952	1.8	2.2	94.5	1.5	4.7a	5.3		None
SBR69-1354-62	940- 985				Trace					
SBR69-1363-64	985- 995				No oil					
SBR69-1365-69	995-1020				c					
SBR69-1370-71	1020-1030				b					
SBR69-1372	1030-1035				Trace					
SBR69-1373-75	1035-1050				b					

See footnote at end of table.

Drill cutting samples received December 23, 1968; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Texaco Oil Company's Federal No. 1 well (con.)

Kelly Bushing elevation 6,369 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 coke				
Laramie	Their		Oil	Water			Spent shale	Gas + loss	Oil ^{1/}	Water
SBR69-1376-79	1050-1070						c			
SBR69-1380-81	1070-1080						b			
SBR69-1382-84	1080-1095						Trace			
SBR69-1385-93	1095-1140						No oil			
SBR69-1394-1401	1140-1180						Trace			
SBR69-1402-05	1180-1200						b			
SBR69-1406-07	1200-1210						No oil			
SBR69-1408	1210-1215						b			
SBR69-1409	1215-1220						Trace			
SBR69-1410	1220-1225						b			
SBR69-1411	1225-1230						No oil			
SBR69-1412	1230-1235						b			
SBR69-1413	1235-1240						No oil			
SBR69-1414	1240-1245						Trace			
SBR69-1415	1245-1250						No oil			
SBR69-1416-25	1250-1300						Trace			
SBR69-1426	1300-1305						No oil			
SBR69-1427	1305-1310						Trace			
SBR69-1428	1315-1320	38953	0.0	0.0	98.4	1.6	No oil	0.1		None
SBR69-1429-34	1320-1350						Trace			
SBR69-1435-36	1350-1360						b			
SBR69-1437	1360-1365	38954	1.3	4.7	92.8	1.2	3.3a	11.3		None
SBR69-1438	1370-1375	38955	6.3	1.3	90.4	2.0	16.3	3.1	0.920	None
SBR69-1439	1375-1380	38956	6.1	1.0	90.3	2.6	15.7	2.4	.925	None
SBR69-1440	1380-1385	38957	1.7	1.4	95.5	1.4	4.5a	3.4		None
SBR69-1441	1385-1390	38958	1.7	1.4	95.6	1.3	4.4a	3.4		None
SBR69-1442	1390-1395	38959	1.6	1.5	95.2	1.7	4.3a	3.6		None
SBR69-1443	1395-1400	38960	1.5	2.0	95.0	1.5	4.0a	4.8		None
SBR69-1444	1400-1405	38961	1.8	1.7	94.5	2.0	4.8a	4.1		None
SBR69-1445	1405-1410	38962	1.9	2.5	94.1	1.5	5.1a	6.0		None

See footnote at end of table.

Drill cutting samples received December 23, 1968; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Texaco Oil Company's Federal No. 1 well (con.)

Kelly Bushing elevation 6,369 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 ^{1/}	Water
SBR69-1446	1410-1415	38963	2.7	2.2	93.3	1.8	7.0	5.3	0.916	None
SBR69-1447	1415-1420	38964	1.9	.7	94.5	2.9	4.9a	1.8		None
SBR69-1448	1420-1425	38965	1.7	1.2	95.8	1.3	4.4a	2.9		None
SBR69-1449	1425-1430	38966	2.9	1.5	93.8	1.8	7.5	3.6	.920	None
SBR69-1450	1430-1435	38967	.9	1.0	97.2	.9	2.4a	2.3		None
SBR69-1451-52	1435-1445						b			
SBR69-1453	1450-1455	38968	.4	.6	98.0	1.0	.9a	1.6		None
SBR69-1454	1455-1460	38969	1.7	1.0	95.9	1.4	4.4a	2.4		None
SBR69-1455	1460-1465	38970	.9	3.1	94.4	1.6	2.3a	7.4		None
SBR69-1456	1465-1470	38971	.2	4.0	94.2	1.6	.6a	9.6		None
SBR69-1457	1470-1475	38972	.2	5.6	92.9	1.3	.5a	13.4		None
SBR69-1458	1475-1480	38973	2.4	1.1	94.2	2.3	6.2a	2.7		None
SBR69-1459	1480-1485	38974	3.0	1.1	93.7	2.2	8.0	2.5	.916	None
SBR69-1460	1485-1490	38975	4.8	.9	90.1	4.2	12.4	2.1	.920	None
SBR69-1461	1490-1495	38976	4.2	.9	92.3	2.6	10.9	2.1	.920	None
SBR69-1462	1495-1500	38977	11.1	1.1	84.4	3.4	29.1	2.6	.910	None
SBR69-1463	1500-1505	38978	9.7	.9	86.3	3.1	25.3	2.3	.915	None
SBR69-1464	1505-1510	38979	2.3	2.0	93.4	2.3	5.9	4.9	.912	None
SBR69-1465	1510-1515	38980	.7	3.4	93.9	2.0	1.7a	8.1		None
SBR69-1466	1515-1520	38981	16.7	1.0	77.8	4.5	43.4	2.4	.920	None
SBR69-1467	1520-1525	38982	7.3	1.2	89.0	2.5	19.1	2.9	.917	None
SBR69-1468	1525-1530	38983	3.1	1.2	94.3	1.4	8.1	2.8	.918	None
SBR69-1469	1530-1535	38984	2.3	1.5	94.7	1.5	6.2	3.6	.911	None
SBR69-1470	1535-1540	38985	.9	.9	96.5	1.7	2.4a	2.2		None
SBR69-1471-73	1540-1555						c			
SBR69-1474	1555-1560	38986	.7	.8	97.0	1.5	1.9a	1.9		None
SBR69-1475	1560-1565	38987	1.1	.9	96.4	1.6	2.8a	2.2		None
SBR69-1476	1565-1570	38988	1.0	.7	96.8	1.5	2.5a	1.7		None
SBR69-1477	1570-1575	38989	.5	.8	97.4	1.3	1.4a	1.8		None
SBR69-1478-79	1575-1585						b			

See footnote at end of table.

Drill cutting samples received December 23, 1968; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Texaco Oil Company's Federal No. 1 well (con.)

Kelly Bushing elevation 6,369 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 ^{1/}	Water
SBR69-1480-81	1585-1595						c			
SBR69-1482	1595-1600	38990	0.4	1.3	96.8	1.5	1.0a	3.1		None
SBR69-1483	1600-1605	38991	1.0	1.1	96.0	1.9	2.7a	2.5		None
SBR69-1484	1605-1610	38992	.9	1.5	96.1	1.5	2.3a	3.6		None
SBR69-1485	1610-1615						b			
SBR69-1486-87	1615-1625						c			
SBR69-1488	1625-1630	38993	.8	.8	97.0	1.4	2.0a	1.9		None
SBR69-1489	1630-1635	38994	.5	.9	97.2	1.4	1.4a	2.2		None
SBR69-1490	1635-1640	38995	2.2	1.1	94.9	1.8	5.6	2.6	0.920	None
SBR69-1491	1640-1645	38998	6.7	1.1	88.6	3.6	17.5	2.8	.915	None
SBR69-1492	1645-1650	38999	6.9	1.0	89.5	2.6	18.0	2.4	.913	None
SBR69-1493	1650-1655	39000	5.1	.7	90.6	3.6	13.4	1.7	.915	None
SBR69-1494	1655-1660	39001	3.1	1.7	92.9	2.3	8.2	4.1	.912	None
SBR69-1495	1660-1665	39002	7.0	2.9	86.8	3.3	18.5	7.0	.906	None
SBR69-1496	1665-1670	39003	6.7	.7	88.3	4.3	17.6	1.6	.913	None
SBR69-1497	1670-1675	39004	4.6	.6	92.6	2.2	12.0	1.6	.908	None
SBR69-1498	1675-1680	39005	10.2	.8	86.0	3.0	26.9	1.9	.907	None
SBR69-1499	1680-1685	39006	9.0	.8	87.1	3.1	23.8	1.8	.911	None
SBR69-1500	1685-1690	39007	5.0	.7	92.1	2.2	13.1	1.7	.910	None
SBR69-1501	1690-1695	39008	10.3	.2	86.9	2.6	27.0	.6	.909	None
SBR69-1502	1695-1700	39009	10.3	.5	85.7	3.5	27.2	1.1	.912	None
SBR69-1503	1700-1705	39010	15.1	.5	80.2	4.2	39.9	1.1	.909	None
SBR69-1504	1705-1710	39011	9.7	.4	86.5	3.4	25.6	1.0	.910	None
SBR69-1505	1710-1715	39012	4.9	.6	92.9	1.6	12.9	1.3	.915	None
SBR69-1506	1715-1720	39043	5.7	.7	92.3	1.3	15.0	1.6	.916	None
SBR69-1507	1720-1725	39014	2.5	.8	95.3	1.4	6.4	1.9	.913	None
SBR69-1508	1725-1730	39015	2.4	.7	95.3	1.6	6.3	1.6	.917	None
SBR69-1509	1730-1735	39016	2.1	.8	96.1	1.0	5.5	1.9	.917	None
SBR69-1510	1735-1740	39017	1.8	.6	96.4	1.2	4.7a	1.4		None
SBR69-1511	1740-1745	39018	1.4	1.0	96.8	.8	3.5a	2.4		None

See footnote at end of table.

Drill cutting samples received December 23, 1968; Assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-4172P Sheet No. 4 of 6 sheets February 10, 1969

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Texaco Oil Company's Federal No. 1 well (con.)

Kelly Bushing elevation 6,369 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 ^{1/}	Water	coke	
SBR69-1512	1745-1750	39019	1.7	1.1	96.4	0.8	4.4a	2.6	None	
SBR69-1513	1750-1755	39020	1.5	.9	96.8	.8	4.0a	2.2	None	
SBR69-1514	1755-1760	39021	1.6	.9	96.4	1.1	4.3a	2.2	None	
SBR69-1515	1760-1765	39022	2.6	1.0	95.3	1.1	6.8	2.4	0.913	None
SBR69-1516	1765-1770	39023	2.6	1.2	95.0	1.2	6.8	2.9	.914	None
SBR69-1517	1770-1775	39024	3.4	1.1	93.9	1.6	8.9	2.6	.913	None
SBR69-1518	1775-1780	39025	3.5	1.2	94.5	.8	9.1	2.9	.911	None
SBR69-1519	1780-1785	39026	4.7	1.5	92.6	1.2	12.4	3.6	.911	None
SBR69-1520	1785-1790	39027	5.1	1.3	92.2	1.4	13.3	3.1	.911	None
SBR69-1521	1790-1795	39028	3.1	1.1	94.2	1.6	8.1	2.6	.924	None
SBR69-1522	1795-1800	39029	3.4	1.6	94.1	.9	8.9	3.8	.914	None
SBR69-1523	1800-1805	39030	2.9	1.0	95.0	1.1	7.6a	2.4	None	None
SBR69-1524	1805-1810	39031	2.9	1.3	94.9	.9	7.7a	3.0	None	None
SBR69-1525	1810-1815	39032	2.8	1.3	94.7	1.2	7.2a	3.2	None	None
SBR69-1526	1815-1820	39033	2.5	1.1	95.1	1.3	6.4a	2.7	None	None
SBR69-1527	1820-1825	39034	2.8	.8	95.0	1.4	7.4a	1.8	None	None
SBR69-1528	1825-1830	39035	2.1	.1	87.0	.8	5.4a	.2	None	None
SBR69-1529	1890-1895	39036	6.6	.1	89.2	4.1	17.2	.2	.925	None
SBR69-1530	1895-1900	39037	.0	.0	99.8	.2	No oil	.0	None	None
SBR69-1531	1900-1905	39038	8.2	1.8	88.5	1.5	21.6	4.2	.914	None
SBR69-1532	1905-1910	39039	5.9	1.4	90.3	2.4	15.6	3.4	.915	None
SBR69-1533	1910-1915	39040	4.8	1.7	92.1	1.4	12.6	4.1	.914	None
SBR69-1534	1915-1920	39041	4.7	1.3	91.9	2.1	12.3	3.2	.920	None
SBR69-1535	1920-1925	39042	4.9	1.9	91.7	1.5	12.7	4.6	.913	None
SBR69-1536	1925-1930	39044	5.1	2.0	90.5	2.4	13.5	4.8	.913	None
SBR69-1537	1930-1935	39045	5.3	1.3	89.8	3.6	13.8	3.2	.919	None
SBR69-1538	1935-1940	39046	5.1	1.3	90.5	3.1	13.4	3.0	.917	None
SBR69-1539	1940-1945	39047	1.2	.5	96.4	1.9	3.0a	1.2	None	None
SBR69-1540	1945-1950	39048	1.1	.7	97.1	1.1	2.8a	1.8	None	None
SBR69-1541	1950-1955	39049	.4	.8	97.7	1.1	1.2a	1.9	None	None

See footnote at end of table.

Drill cutting samples received December 23, 1968; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Texaco Oil Company's Federal No. 1 well (con.)

Kelly Bushing elevation 6,369 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 ^{1/}	Water
SBR69-1542	1955-1960						c			
SBR69-1543	1960-1965						b			
SBR69-1544	1965-1970						c			
SBR69-1545-48	1970-1990						b			
SBR69-1549	1990-1995	39050	1.6	1.7	94.9	1.8	4.2a	4.1		None
SBR69-1550	1995-2000	39051	1.5	1.7	95.1	1.7	3.8a	4.1		None
SBR69-1551	2000-2005	39052	2.5	1.7	94.2	1.6	6.6a	4.1		None
SBR69-1552	2005-2010	39053	2.5	1.9	93.7	1.9	6.6	4.6	0.909	None
SBR69-1553	2010-2015	39054	5.6	1.3	90.8	2.3	14.7	3.1	.913	None
SBR69-1554	2015-2020	39055	5.6	1.3	90.8	2.3	14.7	3.1	.916	None
SBR69-1555	2020-2025	39056	6.3	1.5	90.1	2.1	16.9	3.6	.901	None
SBR69-1556	2025-2030	39057	6.3	1.5	89.3	2.9	16.8	3.6	.904	None
SBR69-1557	2030-2035	39058	4.2	1.0	92.6	2.2	11.0	2.4	.903	None
SBR69-1558	2035-2040	39059	3.7	.8	93.3	2.2	9.9	1.9	.909	None
SBR69-1559	2040-2045	39060	1.9	1.6	94.6	1.9	4.9a	3.8		None
SBR69-1560	2045-2050	39061	2.0	1.7	93.9	2.4	5.5	4.1	.901	None
SBR69-1561	2050-2055	39062	.8	1.9	95.7	1.6	2.1a	4.6		None
SBR69-1562	2055-2060	39063	.7	1.8	95.7	1.8	1.7a	7.3		None
SBR69-1563	2060-2070	39064	1.1	1.6	95.8	1.5	2.9a	3.9		None
SBR69-1564	2070-2080	39065	1.1	1.7	95.8	1.4	2.8a	4.2		None
SBR69-1565	2080-2090	39066	1.2	1.8	93.7	3.3	3.2a	4.2		None
SBR69-1566	2090-2100	39067	1.4	1.8	94.4	2.4	3.6a	4.2		None
SBR69-1567	2100-2110	39068	1.0	1.5	96.4	1.1	2.6a	3.6		None
SBR69-1568	2110-2120	39069	1.3	1.4	96.0	1.3	3.3a	3.4		None
SBR69-1569	2120-2130	39070	1.6	1.3	95.8	1.3	4.2a	3.2		None
SBR69-1570	2130-2140	39071	.4	1.1	97.1	1.4	1.1a	2.6		None
SBR69-1571-72	2140-2161						b			

^{1/} "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.

Drill cutting samples received December 23, 1968; Assays made on air-dried samples