OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Lone Star Producing Companys' Government Well 1X-3, drilled in the SE1/4SW1/4 (560 feet N/S, 2,430 feet E/W) of sec 3, T 12 N, R 107 W, Sweetwater County, Wyoming
Niobrara Formation

Kelly Bushing elevation 7,039 feet

Sample number		Run	Yield of product						Specific gravity	Properties of spent shale	
			Weight percent				Gal per ton				
Laramie	Their	No.	Oil	Water	Spent shale	Gal + loss	Oil[1/]	Water	of oil at 60°/60° F	Tendency to coke	Remarks
SBR74-16021-32	12,270-12,390						No Oil				
SBR74-16033	12,390-12,400						c				
SBR74-16034-7	12,400-12,440						No Oil				
SBR74-16038-9	12,440-12,460						Trace				
SBR74-16040	12,460-12,470						No Oil				
SBR74-16041	12,470-12,480						Trace				
SBR74-16042	12,480-12,490						b				
SBR74-16043	12,490-12,500						Trace				
SBR74-16044-6	12,500-12,530						No Oil				
SBR74-16047	12,530-12,540						Trace				
SBR74-16048	12,540-12,550						b				
SBR74-16049-50	12,550-12,570						Trace				
SBR74-16051	12,570-12,580						No Oil				
SBR74-16052	12,580-12,590						Trace				
SBR74-16053	12,590-12,600						b				
SBR74-16054-62	12,600-12,690						Trace				
SBR74-16063	12,700-12,710						b				
SBR74-16064	12,710-12,720						Trace				
SBR74-16065	12,720-12,730						c				
SBR74-16066	12,730-12,740						Trace				
SBR74-16067-9	12,740-12,770						b				
SBR74-16070	12,770-12,780						Trace				
SBR74-16071	12,780-12,790						b				
SBR74-16072	12,790-12,800						Trace				
SBR74-16073	12,800-12,810						No Oil				
SBR74-16074-5	12,810-12,830						Trace				
SBR74-16076-7	12,830-12,850						No Oil				
SBR74-16078-80	12,850-12,880						b				
SBR74-16081-4	12,880-12,920						Trace				
SBR74-16085	12,920-12,930						b				

See footnote at end of table.

Drill cutting samples received August 13, 1974; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Lone Star Producing Companys' Government Well 1X-3 (con.)

Kelly Bushing elevation 7,039 feet

Sample number		Run	Yield of product						Specific gravity	Properties of spent shale	
			Weight percent				Gal per ton				
Laramie	Their	No.	Oil	Water	Spent shale	Gas + loss	Oil[1/]	Water	of oil at 60°/60° F	Tendency to coke	Remarks
SBR74-16086-7	12,930-12,950						Trace				
SBR74-16088-90	12,950-12,980						b				
SBR74-16091-2	12,980-13,000						Trace				
SBR74-16093-4	13,000-13,020						No Oil				
SBR74-16095-7	13,020-13,050						Trace				
SBR74-16098-9	13,050-13,070						b				
SBR74-16100	13,070-13,080						Trace				
SBR74-16101	13,090-13,100						Trace				
SBR74-16102-5	13,100-13,140						No Oil				
SBR74-16106-8	13,140-13,170						Trace				
SBR74-16109-10	13,170-13,190						b				
SBR74-16111	13,190-13,200						Trace				
SBR74-16112-3	13,200-13,220						No Oil				
SBR74-16114-5	13,230-13.250						Trace				
SBR74-16116	13,250-13,260						b				
SBR74-16117-9	13,260-13,290						Trace				
SBR74-16120-4	13,300-13,350						No Oil				
SBR74-16125-6	13,350-13,370						Trace				
SBR74-16127	13,380-13,390						Trace				
SBR74-16128-32	13,400-13,450						No Oil				
SBR74-16133-6	13,450-13,490						b				
SBR74-16137	13,490-13,500						Trace				
SBR74-16138-9	13,500-13,520						No Oil				
SBR74-16140-1	13,520-13,540						Trace				
SBR74-16142	13,540-13,550						No Oil				
SBR74-16143-50	13,550-13,630						Trace				
SBR74-16151	13,630-13,640						c				
SBR74-16152	13,640-13,650						No Oil				
SBR74-16153-7	13,650-13,700						Trace				
SBR74-16158-62	13,700-13,750						No Oil				

See footnote at end of table.

Drill cutting samples received August 13, 1974; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Lone Star Producing Companys' Government Well 1X-3 (con.)

Kelly Bushing elevation 7,039 feet

Sample number		Run	Yield of product						Specific gravity	Properties of spent shale	
			Weight percent				Gal per ton				
Laramie	Their	No.	Oil	Water	Spent shale	Gas + loss	Oil[1/]	Water	of oil at 60°/60° F	Tendency to coke	Remarks
SBR74-16163	13,750-13,760						Trace				
SBR74-16164-6	13,760-13,790						No Oil				
SBR74-16167-72	13,790-13,850						Trace				
SBR74-16173	13,850-13,860						b				
SBR74-16174-7	13,860-13,900						Trace				
SBR74-16178-81	13,900-13,940						No Oil				
SBR74-16182-5	13,940-13,980						Trace				
SBR74-16186	13,980-13,990						No Oil				
SBR74-16187	13,990-14,000						Trace				
SBR74-16188-93	14,000-14,060						No Oil				
SBR74-16194-7	14,060-14,100						Trace				
SBR74-16198-212	14,100-14,250						No Oil				
SBR74-16213	14,250-14,260						Trace				
SBR74-16214-6	14,260-14,290						No Oil				
SBR74-16217	14,290-14,300						Trace				
SBR74-16218-23	14,300-14,360						No Oil				
SBR74-16224	14,360-14,370						Trace				
SBR74-16225-33	14,370-14,460						No Oil				
SBR74-16234	14,460-14,470						Trace				
SBR74-16235-6	14,470-14,490						No Oil				
SBR74-16237-9	14,500-14,530						No Oil				
SBR74-16240	14,530-14,540						Trace				
SBR74-16241-2	14,540-14,560						No Oil				
SBR74-16243	14,570-14,580						No Oil				
SBR74-16244	14,580-14,590						Trace				
SBR74-16245-89	14,590-15,040						No Oil				
SBR74-16290	15,040-15,050						Trace				
SBR74-16291-4	15,050-15,090						No Oil				
SBR74-15295-9	15,100-15,150						No Oil				
SBR74-16300	15,150-15,160						Trace				

See footnote at end of table.

Drill cutting samples received August 13, 1974; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Lone Star Producing Companys' Government Well 1X-3 (con.)

Kelly Bushing elevation 7,039 feet

Sample number		Run	Yield of product						Specific gravity	Properties of spent shale	
			Weight percent				Gal per ton				
Laramie	Their	No.	Oil	Water	Spent shale	Gas + loss	Oil[1/]	Water	of oil at 60°/60° F	Tendency to coke	Remarks
SBR74-16301	15,160-15,170	97831	0.4	2.0	96.6	1.0	1.0a	4.8	-	None	
SBR74-16302-24	15,170-15,400						No Oil				

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 August 13, 1974; assays made on air-dried samples

Laramie Energy Research Center, Laramie, Wyoming, Illustration No. SBR-4653P Sheet 4 of 4. November 26, 1974