

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Husky Oil Company's Federal Well 1-17 drilled in the NE1/4NE1/4 (763 feet FNL,
556 feet FEL) of sec 17, T 14 N, R 97 W, Sweetwater County, Wyoming

Surface elevation 6,936 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 |
| SBR75-12405 | 2010-2020 | | | | | | No Oil | | | |
| SBR75-12406 | 2050-2060 | | | | | | No Oil | | | |
| SBR75-12407-10 | 2060-2100 | | | | | | Trace | | | |
| SBR75-12411-6 | 2100-2240 | | | | | | No Oil | | | |
| SBR75-12417 | 2240-2260 | | | | | | Trace | | | |
| SBR75-12418 | 2260-2280 | | | | | | c | | | |
| SBR75-12419-21 | 2280-2340 | | | | | | No Oil | | | |
| SBR75-12422 | 2340-2360 | | | | | | Trace | | | |
| SBR75-12423-4 | 2360-2400 | | | | | | No Oil | | | |
| SBR75-12425-6 | 2400-2440 | | | | | | Trace | | | |
| SBR75-12427-35 | 2460-2640 | | | | | | No Oil | | | |
| SBR75-12436 | 2660-2680 | | | | | | Trace | | | |
| SBR75-12437 | 2680-2700 | | | | | | b | | | |
| SBR75-12438 | 2700-2720 | | | | | | No Oil | | | |
| SBR75-12439 | 2780-2800 | | | | | | Trace | | | |
| SBR75-12440 | 2800-2820 | | | | | | b | | | |
| SBR75-12441-3 | 2820-2880 | | | | | | No Oil | | | |
| SBR75-12444 | 2880-2900 | | | | | | b | | | |
| SBR75-12445 | 2900-2920 | | | | | | Trace | | | |
| SBR75-12446 | 2920-2940 | | | | | | No Oil | | | |
| SBR75-12447 | 2940-2960 | | | | | | c | | | |
| SBR75-12448 | 2960-2980 | | | | | | Trace | | | |
| SBR75-12449 | 2980-3000 | | | | | | No Oil | | | |
| SBR75-12450 | 3000-3020 | | | | | | b | | | |
| SBR75-12451-2 | 3020-3060 | | | | | | c | | | |
| SBR75-12453 | 3060-3080 | | | | | | Trace | | | |
| SBR75-12454-5 | 3080-3120 | | | | | | c | | | |
| SBR75-12456 | 3120-3140 | | | | | | b | | | |
| SBR75-12457 | 3140-3160 | | | | | | Trace | | | |
| SBR75-12458 | 3160-3180 | 5668 | 2.6 | 2.0 | 93.8 | 1.6 | 7.0 | 4.8 | 0.906 | None |

See footnote at end of table.

Drill cutting samples received April 14, 1975; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Husky Oil Company's Federal Well 1-17 (con.)

Surface elevation 6,936 feet

| Sample number | Run | Yield of product | | | | | | | Specific gravity of oil at 60°/60° F | Properties of spent shale Tendency to coke | Remarks |
|---------------|-----------|------------------|-------|-----|------|-------------|-------------|------------|--------------------------------------|---|---------|
| | | Weight percent | | | | Gal per ton | | | | | |
| | | Laramie | Their | No. | Oil | Water | Spent shale | Gas + loss | | | |
| SBR75-12459 | 3180-3200 | 5669 | 2.9 | 1.4 | 94.5 | 1.2 | 8.0 | 3.4 | 0.854 | None | |
| SBR75-12460 | 3200-3220 | 5670 | .9 | 2.0 | 96.2 | .9 | 2.3a | 4.8 | | None | |
| SBR75-12461 | 3220-3240 | 5671 | 1.0 | 1.5 | 96.5 | 1.0 | 2.6a | 3.6 | | None | |
| SBR75-12462 | 3240-3260 | 5672 | 3.7 | 2.1 | 92.9 | 1.3 | 9.8 | 5.0 | .895 | None | |
| SBR75-12463 | 3260-3280 | 5673 | 4.1 | 2.0 | 92.4 | 1.5 | 10.9 | 4.8 | .905 | None | |
| SBR75-12464 | 3300-3320 | 5674 | 5.2 | 1.7 | 91.6 | 1.5 | 13.9 | 4.1 | .895 | None | |
| SBR75-12465 | 3320-3340 | 5675 | 4.0 | 1.7 | 93.0 | 1.3 | 10.7 | 4.1 | .898 | None | |
| SBR75-12466 | 3340-3360 | 5676 | 3.6 | 1.5 | 94.8 | .1 | 9.6 | 3.6 | .903 | None | |
| SBR75-12467 | 3360-3380 | 5677 | 4.7 | 1.7 | 93.3 | .3 | 12.4 | 4.1 | .908 | None | |
| SBR75-12468 | 3380-3400 | 5678 | 4.1 | 1.5 | 93.8 | .6 | 10.7 | 3.6 | .911 | None | |
| SBR75-12469 | 3400-3420 | 5679 | 3.7 | 2.2 | 93.8 | .3 | 9.6 | 5.3 | .914 | None | |
| SBR75-12470 | 3420-3440 | 5680 | 3.6 | 1.6 | 93.0 | 1.8 | 9.6 | 3.8 | .908 | None | |
| SBR75-12471 | 3440-3460 | 5681 | 3.5 | 1.8 | 94.5 | .2 | 9.3 | 4.3 | .899 | None | |
| SBR75-12472 | 3460-3480 | 5682 | 4.3 | 2.0 | 92.8 | .9 | 11.5 | 4.8 | .902 | None | |
| SBR75-12473 | 3480-3500 | 5683 | 5.2 | 1.9 | 91.6 | 1.3 | 13.6 | 4.6 | .915 | None | |
| SBR75-12474 | 3500-3520 | 5684 | 1.8 | 3.3 | 94.5 | .4 | 4.8a | 7.9 | | None | |
| SBR75-12475 | 3520-3540 | 5685 | 7.7 | 2.0 | 88.2 | 2.1 | 20.5 | 4.8 | .901 | None | |
| SBR75-12476 | 3540-3560 | 5686 | 5.5 | 1.7 | 91.0 | 1.8 | 14.6 | 4.1 | .896 | None | |
| SBR75-12477 | 3560-3580 | 5687 | 6.7 | 1.8 | 89.9 | 1.6 | 17.9 | 4.3 | .902 | None | |
| SBR75-12478 | 3580-3600 | 5688 | 4.6 | 1.0 | 92.8 | 1.6 | 12.2 | 2.4 | .896 | None | |
| SBR75-12479 | 3600-3620 | 5689 | 2.9 | 1.2 | 94.7 | 1.2 | 7.8 | 2.9 | .891 | None | |
| SBR75-12480 | 3620-3640 | 5690 | 1.7 | .8 | 96.3 | 1.2 | 4.5a | 1.9 | | None | |
| SBR75-12481 | 3640-3660 | 5691 | 3.5 | .9 | 93.9 | 1.7 | 9.2 | 2.2 | .907 | None | |
| SBR75-12482 | 3660-3680 | 5692 | 5.9 | 1.0 | 91.0 | 2.1 | 15.6 | 2.4 | .900 | None | |
| SBR75-12483 | 3680-3700 | 5693 | 8.4 | .8 | 88.6 | 2.2 | 21.8 | 1.9 | .921 | None | |
| SBR75-12484 | 3700-3720 | 5694 | 4.1 | 1.1 | 93.3 | 1.5 | 10.7 | 2.6 | .909 | None | |
| SBR75-12485 | 3720-3740 | 5695 | 4.0 | 1.2 | 93.5 | 1.3 | 10.5 | 2.9 | .908 | None | |
| SBR75-12486 | 3740-3760 | 5696 | 4.0 | 1.5 | 92.7 | 1.8 | 10.6 | 3.6 | .905 | None | |
| SBR75-12487 | 3760-3780 | 5697 | 2.6 | 1.3 | 94.6 | 1.5 | 7.1 | 3.1 | .901 | None | |
| SBR75-12488 | 3780-3800 | 5698 | 2.7 | 1.3 | 94.5 | 1.5 | 7.2 | 3.1 | .900 | None | |

See footnote at end of table.

Drill cutting samples received April 14, 1975; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Husky Oil Company's Federal Well 1-17 (con.)

Surface elevation 6,936 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 |
| Laramie | Their | | Oil | Water | | | | | | |
| SBR75-12489 | 3800-3820 | 5699 | 2.7 | 1.5 | 94.5 | 1.3 | 7.3 | 3.6 | 0.901 | None |
| SBR75-12490 | 3820-3840 | 5700 | 3.1 | 1.7 | 93.1 | 2.1 | 8.2 | 4.1 | .893 | None |
| SBR75-12491 | 3840-3860 | 5701 | 2.3 | 2.1 | 94.2 | 1.4 | 6.3 | 5.0 | .894 | None |
| SBR75-12492 | 3860-3880 | 5702 | 1.7 | 2.2 | 95.1 | 1.0 | 4.4a | 5.3 | | None |
| SBR75-12493 | 3880-3900 | 5703 | 1.3 | 2.5 | 95.3 | .9 | 3.4 | 6.0 | | None |
| SBR75-12494 | 3900-3910 | | | | | | c | | | |
| SBR75-12495 | 3910-3920 | | | | | | No Oil | | | |
| SBR75-12496 | 3920-3930 | | | | | | c | | | |
| SBR75-12497 | 3930-3940 | | | | | | b | | | |
| SBR75-12498 | 3940-3950 | | | | | | Trace | | | |
| SBR75-12499 | 3950-3960 | | | | | | b | | | |
| SBR75-12500 | 3960-3970 | | | | | | c | | | |
| SBR75-12501 | 3970-3980 | | | | | | No Oil | | | |
| SBR75-12502-3 | 3980-4000 | | | | | | b | | | |
| SBR75-12504-21 | 4000-4180 | | | | | | No Oil | | | |
| SBR75-12522 | 4180-4190 | | | | | | Trace | | | |
| SBR75-12523 | 4200-4210 | | | | | | No Oil | | | |
| SBR75-12524-7 | 4220-4260 | | | | | | No Oil | | | |
| SBR75-12528 | 4260-4270 | | | | | | Trace | | | |
| SBR75-12529-30 | 4270-4290 | | | | | | No Oil | | | |
| SBR75-12531 | 4290-4300 | | | | | | c | | | |
| SBR75-12532 | 4300-4310 | | | | | | No Oil | | | |
| SBR75-12533-4 | 4310-4330 | | | | | | Trace | | | |
| SBR75-12535-54 | 4330-4530 | | | | | | No Oil | | | |
| SBR75-12555 | 4530-4540 | | | | | | Trace | | | |
| SBR75-12556-64 | 4540-4630 | | | | | | No Oil | | | |
| SBR75-12565 | 4630-4640 | | | | | | b | | | |
| SBR75-12566-70 | 4640-4690 | | | | | | No Oil | | | |
| SBR75-12571 | 4690-4700 | | | | | | c | | | |
| SBR75-12572-6 | 4700-4750 | | | | | | No Oil | | | |

See footnote at end of table.

Drill cutting samples received April 14, 1975; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Husky Oil Company's Federal Well 1-17 (con.)

Surface elevation 6,936 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 | | Gas + Loss | Gal per ton | | | |
| Laramie | Their | | Oil | Water | | Spent shale | Oil ¹ / Water | | |
| SBR75-12577 | 4750-5760 | | | | | c | | | |
| SBR75-12578 | 4760-4770 | | | | | Trace | | | |
| SBR75-12579-80 | 4770-4790 | | | | | No Oil | | | |
| SBR75-12581-2 | 4790-4810 | | | | | Trace | | | |
| SBR75-12583-8 | 4810-4870 | | | | | No Oil | | | |
| SBR75-12589 | 4870-4880 | | | | | c | | | |
| SBR75-12590-1 | 4880-4900 | | | | | Trace | | | |
| SBR75-12592-9 | 4900-4980 | | | | | No Oil | | | |
| SBR75-12600 | 4980-4990 | | | | | Trace | | | |
| SBR75-12601-4 | 4990-5030 | | | | | No Oil | | | |
| SBR75-12605 | 5030-5040 | | | | | b | | | |
| SBR75-12606 | 5040-5050 | | | | | Trace | | | |
| SBR75-12607-25 | 5050-5240 | | | | | No Oil | | | |
| SBR75-12626-40 | 5250-5400 | | | | | No Oil | | | |
| SBR75-12641 | 5400-5410 | | | | | Trace | | | |
| SBR75-12642-50 | 5410-5500 | | | | | No Oil | | | |
| SBR75-12651-72 | 5510-5730 | | | | | No Oil | | | |
| SBR75-12673 | 5730-5740 | | | | | Trace | | | |
| SBR75-12674-82 | 5740-5830 | | | | | No Oil | | | |
| SBR75-12683 | 5830-5840 | | | | | c | | | |
| SBR75-12684 | 5840-5850 | | | | | Trace | | | |
| SBR75-12685 | 5850-5860 | | | | | No Oil | | | |
| SBR75-12686 | 5860-5870 | | | | | Trace | | | |
| SBR75-12687 | 5870-5880 | | | | | No Oil | | | |
| SBR75-12688 | 5880-5890 | | | | | b | | | |
| SBR75-12689-90 | 5890-5910 | | | | | No Oil | | | |
| SBR75-12691 | 5910-5920 | | | | | b | | | |
| SBR75-12692-6 | 5920-5970 | | | | | No Oil | | | |
| SBR75-12697 | 5970-5980 | | | | | Trace | | | |
| SBR75-12698 | 5980-5990 | | | | | b | | | |

See footnote at end of table.

Drill cutting samples received April 14, 1975; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Husky Oil Company's Federal Well 1-17 (con.)

Surface elevation 6,936 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 | | | | |
| Laramie | Their | | Oil | Water | Spent shale | Gas + loss | Oil ^{1/} | Water | |
| SBR75-12699 | 5990-6000 | | | | | | Trace | | |

^{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 April 14, 1975; assays made on air-dried samples