

- a) Sun Oil Company
P. O. Box 1861
Midland, Texas 79701
- b) Shearn Federal Com. #1
Unit L, Section 15, Township 19-S, Range 52-E
Lea County, New Mexico
- c) This well was not completed as a dual. The Wolfcamp was temporarily plugged to test the Bone Spring as per the C-103 approved by the Commission. Sun Oil Company requests permission to commingle Wolfcamp production from perfs 10626 to 10759 with Bone Spring production from perfs 9832 to 9868.
- d) TESTS:
6-12-76 Wolfcamp, 24 hours pumping, 22 BO, 5 BW, 369 MCF, GOR 16772/1.
6-25-76 Bone Spring, swab test extrapolated to 24 hours, 9 BO, 3 BLAW, 7.2 MCF, GOR 800/1.
- e) Production decline curve for Wolfcamp attached.
Bone Spring - Perforated 9832, 34, 36, 38, 40, 42, 44, 46, 50, 60, 62, 64, 68 w/1 JS at each. Acidize perfs with 2000 gal. 15% NEHCL and 25 ball sealers. BDP 4000, Max press 6000, Min 3200, FP 5400, ISD 4700, 15 min 3850, AIR 2 BPM, Rec. 18 BO + 39 BLAW swabbing. Acidize perfs w/10,000 gal 20% CRA. BDP 3800, Max 8500, Min 3800, FP 8200, ISD 4440, 15 min 3950. AIR 8 BPM. Swab tested - extrapolated to 24 hrs. 9 BO, 3 BLAW, GOR 800/1.
After commingling the anticipated production will be, Oil - 71% Wolfcamp, 29% Bone Spring; gas - 98% Wolfcamp, 2% Bone Spring; Water - 100% Wolfcamp.
- f) Estimated Bottom Hole Pressure - Both zones will be artificially lifted.
Wolfcamp - 1000 psi - Based on previous BHP data and production history
Bone Spring - 3310 psi - Based on 37 hr. SITP and hydrostatic pressure of fluid in the well.
- g) Fluid characteristics
Wolfcamp - 65% 40.30 API gravity oil, 35% 1.08 sp. gr. formation Brine water
Bone Spring - (Anticipated) 100% 39.9° API gravity oil based on data from offset Jennings Federal #1.
Fluids should be compatible in the well bore.
- h) Oil Value - 40.3° API (Wolfcamp) Oil value is \$12.23 per barrel
39.9° API (Bone Spring) Oil value is \$12.22 per barrel
No loss of value will occur from downhole commingling.
- i) Offset operators and the U.S.G.S. will be notified of this application for commingling.