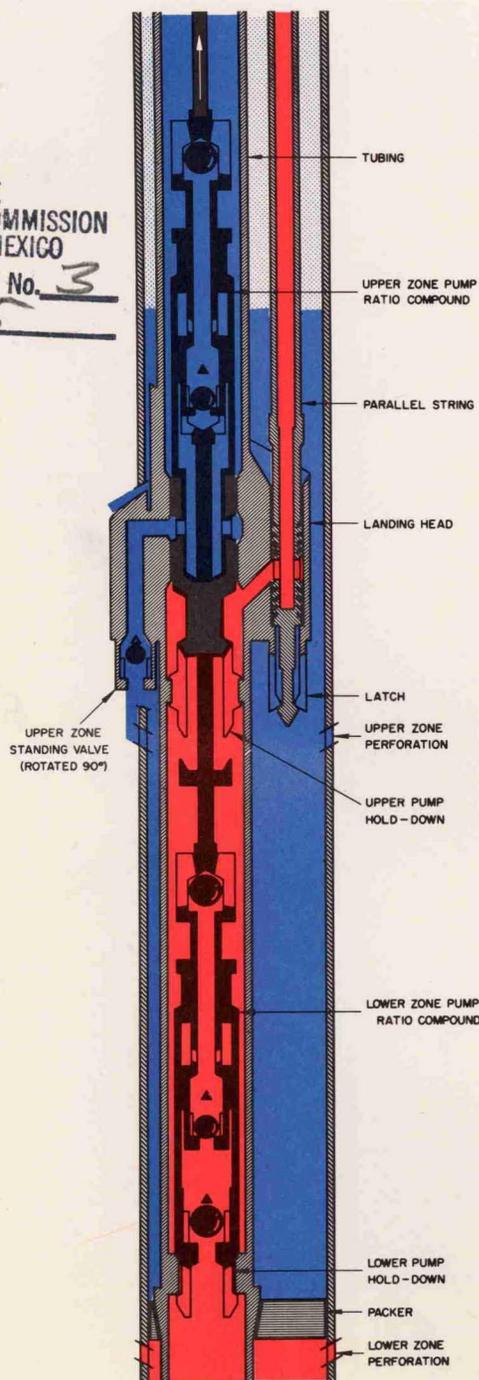
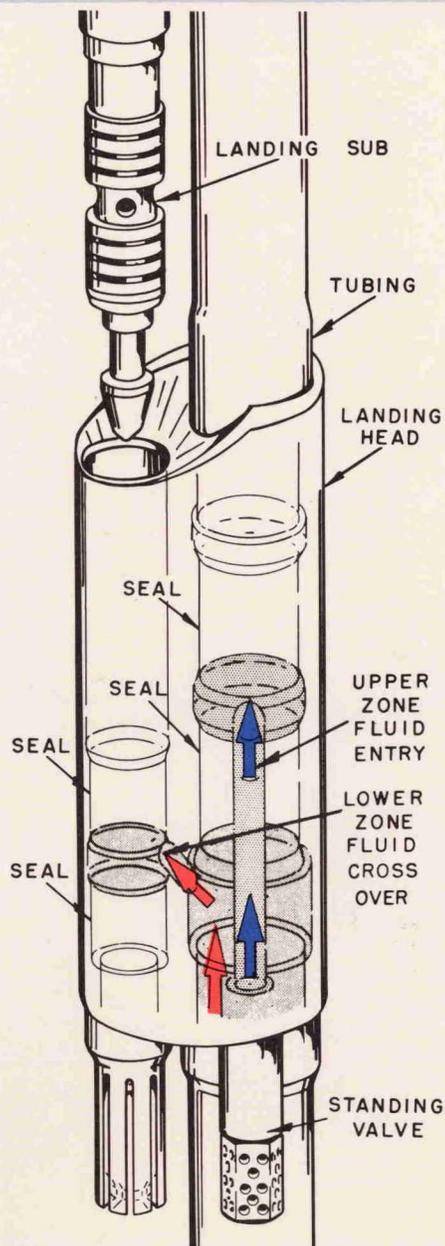


BEFORE THE  
 OIL CONSERVATION COMMISSION  
 SANTA FE, NEW MEXICO  
 Phillips EXHIBIT No. 3  
 CASE 11915



## Typical Dual Zone Installation WITH RATIO-COMPOUND PUMPS



In the installation illustrated, a packer separates the perforated intervals of the upper and lower zone. Both upper and lower zone pumps are positioned in the long string of tubing, and are run in, operated, and pulled with a single string of rods. The long string conducts the upper zone production while a second string of tubing conducts the lower zone production to the surface. No gas is vented from the lower zone, but gas from the upper zone is vented up the casing. The two tubing strings are run independently. The crossover shoe with integral landing head is run in on the long string. A landing spear is run on the bottom of the short string. This spear is automatically guided into place by the landing head and the seal elements are properly positioned by a no-go ring and latch.

In the illustration, a Ratio-Compound Pump is shown in both the upper and lower zone. A Ratio-Compound has the following advantages over a conventional pump in Dual Zone installations. In the lower zone where gas is not vented, it will reduce gas lock and improve pump efficiency. In the upper zone it will improve pump efficiency and will permit the upper pump to continue to produce even if a standing valve should fail. In both zones it will eliminate fluid pound and in gassy wells will maintain a tension in the rod string on the down stroke. Ratio-Compound pumps are available for all types of Dual Zone installations and may be run as an option without modification of the tubing assembly.

**SINGLE PACKER DOUBLE STRING**  
 Installation Typical of  
**DZT2092-55**                      **DZT2092-70**  
**DZT2592-70**

with  
**Ratio-Compound Pumps**