

STATE FU #3 (Conversion to SWD)

- V. See Attachment I
- VI. See Attachment II
- VII.
  - 1. 500 BWPD Avg  
800 BWPD Max
  - 2. System is closed
  - 3. Average surface injection pressure - 0 psi  
Maximum surface injection pressure - 500 psi
  - 4. The produced water is currently from the Upper Bone Springs and Wolfcamp Horizons. There has also been production from the Lower Bone Springs in the past and this horizon may be produced at a future date. Even though the Upper and Lower Bone Springs are two different regulatory fields, they are of the same geologic age. As seen from the attached water analysis, the Upper and Lower Bone Springs waters are very similar and will be compatible. Also, Wolfcamp water is currently being produced in the offset State "FU" No. 1, which is downhole commingled with the Upper Bone Springs. In our application to downhole commingle the State "FU" No. 1 (Reference letter dated 9-19-83, File: SJO-1845-WF), we showed the Wolfcamp and Upper Bone Springs waters were compatible and have not seen anything to the contrary since downhole commingling. Therefore, the Wolfcamp water will also be compatible with the receiving formations. Therefore, all current and future productive horizons (Upper and Lower Bone Springs and Wolfcamp) are compatible and will be compatible with the receiving formations.
- VIII. The injection zone is a carbonate formation with some sandstone, chert and shale. The geological name is the Bone Springs and it is 2800' in thickness. The top of the Bone Springs is at 3691' subsea.  
  
Underground sources of drinking water in the area overlying the injection zone are the Ogallala (approx 3795' above sea level to 3800' above sea level) and the triassic (bottom at 2895' above sea level to 3795' above sea level).
- IX. We propose to perforate Upper Bone Springs intervals 9206-26', 9264-68', and 9277-85' then acidize these intervals with 3200 gal 15% NE HCL. No stimulation should be required for Lower Bone Springs 10,207-37'.
- X. Logs on file with the NMOCD
- XI. See Attachment III

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MAR 19 1984  
O.C.D.  
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