

- c) the Hill-Cayless McKee Pressure Maintenance Project was initially limited to that area in Sections 34 and 35 located on the downthrust side of a fault which traversed the N/2 SW/4 of Section 35 and the N/2 SE/4 of Section 34 in a northeast-southwest direction;
- d) as a result of additional reservoir studies, the applicant directionally drilled its Bayless Cade Well No. 7 across the northeast-southwest trending fault in the NW/4 SW/4 of Section 35. The well was successfully completed as a McKee producing well which proved the presence of "banked" oil on the upthrust side of the fault;
- e) in late 1997, the applicant drilled its E. C. Hill "B" Well No. 24 in the NE/4 SE/4 of Section 34. The well, which is located on the upthrust side of the fault, was also successfully completed as a McKee producer; and,
- f) bottomhole pressure data indicates that the lower McKee sand on the upthrust side of the fault is in pressure communication with the upper McKee sand on the downthrust side of the fault;

(7) The geologic and engineering evidence presented indicates that the McKee reservoir is continuous and in communication across the fault, and that the applicant's proposed expansion of the Hill-Cayless McKee Pressure Maintenance Project is logical and geologically justified.

(8) The applicant estimates that expansion of the Hill-Cayless McKee Pressure Maintenance Project should result in the recovery of an additional 145,000 barrels of oil from the expansion area which may otherwise not be recovered, thereby preventing waste.

(9) Costs to implement the proposed expansion are estimated to be approximately \$250,000.

(10) The expansion of the Hill-Cayless McKee Pressure Maintenance Project should result in the recovery of additional secondary oil, thereby preventing waste, will not violate correlative rights, and should therefore be approved.

(11) The applicant testified that only the S/2 NE/4 of Section 34 and the S/2 NW/4 of Section 35 within the proposed expansion area will actually be affected by pressure maintenance operations, and that no additional development of the McKee reservoir is planned for the N/2 NE/4 of Section 34 and the N/2 NW/4 of Section 35.

(12) The expansion area should be limited to the S/2 NE/4 of Section 34 and the S/2 NW/4 of Section 35.

(13) The injection of water into the proposed injection wells should be accomplished through 2 3/8 inch internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforations; the casing-tubing annulus in each well should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(14) Prior to the commencement of injection operations into the E. C. Hill "B" Federal Well No. 6, the Blinbry perforated interval from 5,316 feet to 5,781 feet should be effectively isolated by cement squeeze.

(15) Prior to the commencement of injection operations into the E. C. Hill "D" Federal Well No. 1, the Abo perforated interval from 6,638 feet to 6,714 feet and 6,958 feet to 7,014 feet, and the Devonian perforated interval from 7,184 feet to 7,256 feet should be effectively isolated by cement squeeze.

(16) Subsequent to the performance of remedial cement operations on the E. C. Hill "B" Federal Well No. 6 and the E. C. Hill "D" Federal Well No. 1, and prior to the commencement of injection operations into these wells, the casing in each well should be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(17) The injection wells or pressurization system should be equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 1823 psi.

(18) The Division Director should have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(19) The operator should give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the performance of remedial cement operations, installation of injection equipment, and performance of mechanical integrity pressure tests in order that the same may be witnessed.