Based on other wells on similar strike on structure Brown said the No. 2 well should pay royalty owners (state, federal, and fee), about $15,988 per month.

Brown noted that the Teledyne lease was issued in 1936. The nearest known Kerr McGee lease, said Brown, is in Sec. 25.

Belco attorney Jason Kellahin observed that this application differs from other applications of this type in that there is only one potash lease in the gas pool formed in 1961 and the unorthodox location was approved without objection from the owner of the one lease in Sec. 30.

This is a development well location and not a wildcat, said Brown.

Robb, representing Kerr McGee, wanted to know if Brown knew that Teledyne is shut down and inoperative. Brown replied he knew there was some problem but didn't know they were inoperative.

Henry, geologist for Belco, presented exhibits showing the structural trend through wells near the proposed No. 2 well, which he said should be a prolific well possibly encountering some sands not tapped in other wells. He described the Morrow producing interval as being composed of lenticular lenses which come and go throughout the area.

He said the pool was originally spaced on 160 acres but this was changed by OCC Order R-4600 to 320-acre spacing.

Robb asked Henry if any thought had been given to directionally drilling the well from a surface location 4000 to 5000 feet from the bottom hole location. Henry said he knew of no such drilling projects in the state, only whipstock drilling within a few hundred feet of the surface location. He felt the risk of damage to the formation, to pipe and possible loss of the hole, were too great to even consider such a venture.

Cope, engineer consultant for Belco, referred to studies he had made of the pool. The No. 1 CM well drilled by Texaco in 1961 produced at a very good rate and in 1969 production increased to more than 110 million cubic feet of gas per month, which did not reflect its true productive capacity but the limited market demand. Production started to decline in 1971 and the shut-in tubing pressure has declined to the point where the well cannot produce much longer. It is on strike with the No. 1 Bass-Federal well that has been produced for only 5-1/2 months. It was estimated this well is equal to, or better than, the first well. A seven-year life was estimed for the No. 1 Bass-Federal well.

Cope said the location in Sec. 30 is necessary, due to the lenticular nature of the sands, for the best development of the Morrow. He said the No. 1 Bass-Federal well is draining some of the gas from under the S/2 of Sec. 30.

The OCC required casing cementing program for the Potash-Oil Area would be adhered to, said Cope, and it has been successful in other potash-oil areas so there is no reason it should not be satisfactory here. The same type of casing cementing and plugging program has been used in several other states, said Cope.

Kendrick, for El Paso, took the stand prepared to give testimony on the need of all the gas produced in this area by El Paso Natural Gas Company but Robb was willing to stipulate to this and Kendrick did not testify beyond this statement.

McPeters, Moranco Drilling, said of his company's seven rigs, six are currently busy in the Carlsbad area. He said he would not consider taking a contract on directionally drilling a well from a distance of 4000 or 5000 feet, as suggested by Robb, to the bottom-hole location in Sec. 30. It takes about 65 days to drill a straight hole to the Morrow here and a directionally drilled well would take 3 to 4 times that long if all went well. He said he would not even drill a 1000 foot deviated hole here due to the high risk and scarcity of pipe. He said there would be innumerable other problems.

Holbart, Roland Drilling, said his firm would not take such a contract either, agreeing with McPeters on the hazards.

Warnock, mining consultant, said he had conducted studies of the area with the core hole and other data available. After long and detailed testimony, based largely on exhibits prepared by him, Warnock concluded that Sec. 30 had not seen any potash mining activity to date, and in his opinion it never would. He discussed economics, quality of ore in core holes, the six mile distance from the Kerr McGee mine shaft to this area and the slow development of Kerr McGee to date. For investment purposes Sec. 30 would have to be considered barren since no core holes have been taken in it, said Warnock.

The hearing was adjourned at five p.m. Friday until 8:30 a.m. Saturday morning.

Kerr McGee's witness, Robert H. Lane, testified that Kerr McGee estimated $11,510,708 worth of ore at a price of $34 per tone underlay a radius of 2100 feet around the proposed well. It was established through cross-examination of the witness by Jason Kellahin that Kerr McGee does not own any leases in Sec. 30 or anywhere near the proposed well. The acreage immediately under the Belco proposed well is not leased to anyone at this time for the mining of potash.