SUMMARY OF CONVERTING JOT #1 T.A. GAS WELL TO ARCO-STATE DISPOSAL WELL #1

The subject well was originally completed in open hole of 3700' to 3800' with elevation of 3469' D.F. This was eventually squeezed.

The 5-1/2" casing was subsequently perforated as follows: 3090'-3100', 3150'-3210', 3280'-3300', 3330'-3355', 3585'-3605' and 3635'-3680'. All perforations below 3210' were reportedly squeezed off prior to the conversion of the well to salt water disposal. This conversion work began May 24, 1976.

All squeezing during conversion to water disposal was done by Halliburton using SV-EZ drill retainers and Type "C" cement w/5# salt per sack and 0.5% C.F.R.-2. Low pressure hesitation technique was used during squeezes.

First squeeze was an attempt to close off all open perforation in one stage. 300 sacks of cement were used with retainer set at 2970'. Final squeeze pressure was 2000 psig, and 284 sacks of cement were pumped into the formation.

On drilling out the plug, frac sand was found to have covered the perforations from 3190' to 3210' which remained open. 150 sacks were used to shut off this lower section. Final squeeze pressure was again 2000 psig and 135 sacks were pumped out into the formation.

Perforations from 3280' to 3300' previously squeezed tested satisfactorily when the old plug was drilled out. However, the perforations from 3330' to 3350' were found to leak after the old plug was removed. One hundred sacks were used to successfully resqueeze the section from 3330'-3350'. Final squeeze pressure was 2600 psig and 84 sacks cement were pumped into the formation.

On drilling out the old plug, the perforated section from 3585' to 3605' was found to be open. Two stages of 100 and 150 sacks cement respectively were required to effect a shut off. Final squeeze pressure on the second stage was 2000 psig after 235 sacks cement were pumped out into the formation.

The bottom set of perforations from 3635'-3680' were found to be holding and did not require additional squeezing.

Cement originally squeezed into the open hole from 3700'-3800' was drilled out and the well deepened to 3875'.

The open hole section was treated with 2000 gals. 15% MCA acid by Halliburton and subsequently the well accepts water on a vacuum.

Well was completed for water injection with a Halliburton R-4 plastic coated packer set on tubing near the shoe in the 5-1/2" casing. Tubing is new plastic lined 2" E.U.E. J-55. The annulus between the casing and tubing was filled with fresh water treated with sodium bichromate and lime.