

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87501



STATE GEOLOGIST EMERY C. ARNOLD

LAND COMMISSIONER PHIL R. LUCERO

February 11, 1977

Mr. Tom C. Horton P. O. Box 150 Edgewood, New Mexico

> Subject: Strawn #1 Horton Well, Unit A, Section 32, Township 11 North, Range 7 East, NMPM, Santa Fe County, New Mexico.

Dear Mr. Horton:

In accordance with recommendations and proposals advanced at the Commission's hearing on Case No. 5836, January 19, 1977, the following suggestions are submitted for your consideration.

Since action taken at the afore-mentioned meeting indicates your intention to convert the subject well to a water supply well, you are advised that a certain amount of bore-hole conditioning would be required for such a conversion. Based on the relatively meager information provided to the Commission concerning the well history it is hereby recommended that the well be plugged back to a depth of approximately 550' below the surface. There are several ways in which this can be accomplished, mainly dependent upon hole conditions and equipment available.

If the hole is empty and dry it can of course be plugged back to the desired height by simply pouring cement slurry into the borehole. However, this could require a large amount of cement. An alternative procedure is to set one plug at approximately 1,000' and another at approximately 550'. To insure that these plugs remain in place, cement baskets or bridge plugs can be used. Also, in the case of an empty hole, drill cuttings could be placed in the hole from total depth up to approximately 1025' followed by approximately 25' of cement slurry. Then the interval from 1000' to approximately 600' in depth could be filled with drill cuttings again followed by cement slurry fill-up to about 550'.

In the event the bore-hole contains good quality drilling mud, cement can be placed where desired by pumping it through tubing,

DIRECTOR JOE D. RAMEY -2-Mr. Tom C. Horton

displacing the mud. After thus pumping the plug at approximately 1000' the tubing may be raised to approximately 600' and the second plug emplaced. The columns of mud will keep the plugs in place.

In either case, drilling mud is the preferred medium for filling the uncemented portions of the bore hole, since it is incompressible and thixotropic. There may be certain requirements by the State Engineer's Office pertaining to water well completions, however the Commission does not normally specify completion procedures for such wells.

If we may be of further assistance, please advise.

Yours truly,

CARL ULVOG Senior Geologist

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