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December 16th 63

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Pumping test new well
Sidney Waterworks District

About 2 years ago when I was first assembling data on the Sidney Waterworks system, I was shown a proposed well site on the north side of McTavish Road about 500' west of the new Highway on land owned by the Sidney Waterworks District. I said at that time that I thought the site was favorable on the basis of information on hand.

In May, 1963 under the direction of John Motherwell as consultant 2 test holes were drilled by R.C. Thurber & Associates Ltd. at this site. These confirmed the presence of the sand aquifer which has been a satisfactory source for wells in this area.

The sand which varies in thickness from 8 to 15' at this site is a flowing certesian aquifer being confined below a glacio marine clay. Very close to the north boundary of the Sidney Waterworks property about 225' from the new well there is a flowing artesian well serving as domestic supply for several houses. The details of well construction here are unknown. The well overflows about 1' above ground level.

Across McTavish Road about 250' from the new well is a shallow well owned by a party named Montague. This consists of a concrete lined hole about 4' square and about 3' deep. There is a hole lined with 8" tile extending 8½' below the top of the well cover. The static level here is about 2' below the well cover or about 1½' below ground level. There are believed to be other similar wells in this area further from the well site. Some of these may be licensed.

On December 10th a 24 hour pumping test was carried out on the new well; this was supervised by Water Resources Service at Mr. Motherwell's request. The capacity of the new well is in the order of 40 G.P.M. (Imp.). When the well was pumped during the test at 40 g.p.m. (Imp.) the well to the north stopped overflowing after about 6 hours of pumping, the level going down about 1" below the overflow. We thought that this decrease

in level might be due to drawdown from the pumped well. However it began to overflow again after midnight after about 14 hours of pumping and continued to overflow until after 7 A.M. the next morning. We conclude from this that the level of this well is controlled mostly by consumption of water and that any effect of pumping of the new well must be very slight.

In the morning after about 23 hours of pumping the tennant at Montagues house said that his well had gone dry and that he was without water. The water level was down to about 5½' about 3½' below static level. This left 3' of water in the well. When the pump was started it did not pump properly. It may be that the pump was in poor condition and that the additional suction left when the level was down in the well was too much for it. It appears that pumping at the new well probably effects this well but that the well is only barely adequate at best.

There may be other claims of well interference in this area especially if Sidney Waterworks should install another well on this piece of property in order to obtain a total of about 60 g.p.m. Mr. Gibbs asked how we might handle such a problem where there was a water licence on a well or spring. I referred him to Mr. Errington for this information.

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