

22. Natural inferences from the above is that the standard for ground water chlorine must be a local one. In order further to examine this matter I caused 112 samples of well waters to be collected on one day last week. They were all taken from the plateau forming the district in and about Stittsville, Richmond, Bell's Corners and Fallowfield in this county. Unfortunately it was impossible in the time at my disposal to procure all the desired information as to depth of well, character of soil, etc., as very suggestive results were obtained as follows:—

(1) At Stittsville there is very little depth of soil. In many places the rock outcrops. Towards the south there is a gradual descent to the large plateau which forms the township of Goulborne, and which is drained into the river Jock. The wells on this downward slope are mostly shallow and show from one to ten parts of chlorine per million. Two deeper wells (forty feet), show thirty four and forty-eight parts respectively, and evidently represent a different supply.

(2) Once in the plateau—the centre of which is Richmond village—we find the average chlorine rise to nearly 200 parts per million (such numbers as 206, 134, 232, 252, 220, 248, occurring).

(3) For the vicinity of Richmond itself a much lower chlorine number is found (e.g., 14, 16, 34, 20, 12, 4, 18, 20, 18, 10, occurring in ten neighboring wells). These wells average about fifteen feet in depth, and no doubt reach the normal ground water.

(4) Among them are found wells of less depth, or sometimes of the same depth, but on slightly higher ground, which were dry when I visited them.

(5) While the average number for ground water in Richmond is therefore about 20, certain other wells gave 248, 84, 38, 52, 52, 116, 116, 50, 106, 68, 96, 104, 58 and 92. These wells were for the most part on the outskirts of the village. Several, however, were taken in the village itself, from wells whose surroundings suggested sewage pollutions. The transition from the local standard for the village (20) to that for the county (200) is well marked.