

GeoSuffolk Notes 37.3

Mendlesham 'Water Scavenging'

'Water scavenging' is a term for obtaining better water by adjusting pumping rates from boreholes.

When Pauls and Whites Foods Ltd Maltings at Mendlesham, Suffolk, was built a borehole was sunk, in 1966, to obtain water for steeping the barley. Chalk was struck at 167 feet deep, boring continued and a submersed pump was installed at 226 feet. The steep water had about 300 ppm of 'salt' and 500ppm of other minerals; however this was not good for raising steam to heat the radiators for kilning the malt because of the bicarbonate content giving scale problems. A second smaller pump was then put in at 212 feet deep to obtain water which needed less demineralisation for steam-raising duties. It was soon realised that, when the lower pump was working, even better water, sometimes with only about 100 ppm of 'salt' was obtained from the small pump higher up, which cut demineralisation costs. This was a good example of water scavenging. (Info. From 'Deep and Ancient Waters' by W J W L, Pauls and Whites Foods, Ltd. C.1974).

So how long had these waters been in the Chalk? Their 'age' was estimated by radiochemical techniques by the Institute of Geological Sciences using Carbon 14 and Tritium. The water from the smaller, upper pump had been under the surface for 8,000 years and from the lower pump 18,000 years.

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