

## Course 1.7. Practical 1.

### An Exercise in Hydrogeological Map Interpretation

You need access to the British Geological Survey's map of the area from Cambridge to Maidenhead, UK. You can either use a paper copy, or view it at [http://www.bgs.ac.uk/research/groundwater/datainfo/hydromaps/hydro\\_maps\\_scanviewer.html](http://www.bgs.ac.uk/research/groundwater/datainfo/hydromaps/hydro_maps_scanviewer.html).

1. Imagine that you live in the remote village of **Stoke Row**, on top of the Chiltern Hills. The nearest springs are several km away; there is no river. Some people collect rain water as their drinking water.

The altitude of the village is \_\_\_\_\_ m above sea level

The coordinates of the village are \_\_\_\_\_

The main aquifer in the area is the Cretaceous "Chalk" limestone

From the map, can you say

- (a) How thick is the Chalk below Stoke Row and what is beneath it?
  - (b) How deep is it to the groundwater table?
  - (c) Would you recommend digging a well or drilling a borehole? How deep should it be?
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2. If you have time, imagine you own a factory in the town of Slough at  
Coordinates \_\_\_\_\_  
Altitude \_\_\_\_\_ m above sea level
    - (a) What options do you have for the factory water supply?
    - (b) There are several aquifer horizons beneath the factory. In each case:
      - What is the likely static groundwater level?
      - How deep is the aquifer?
      - How deep would you drill a borehole to access water?
    - (c) If you have time, try sketching a geological section below the factory.