

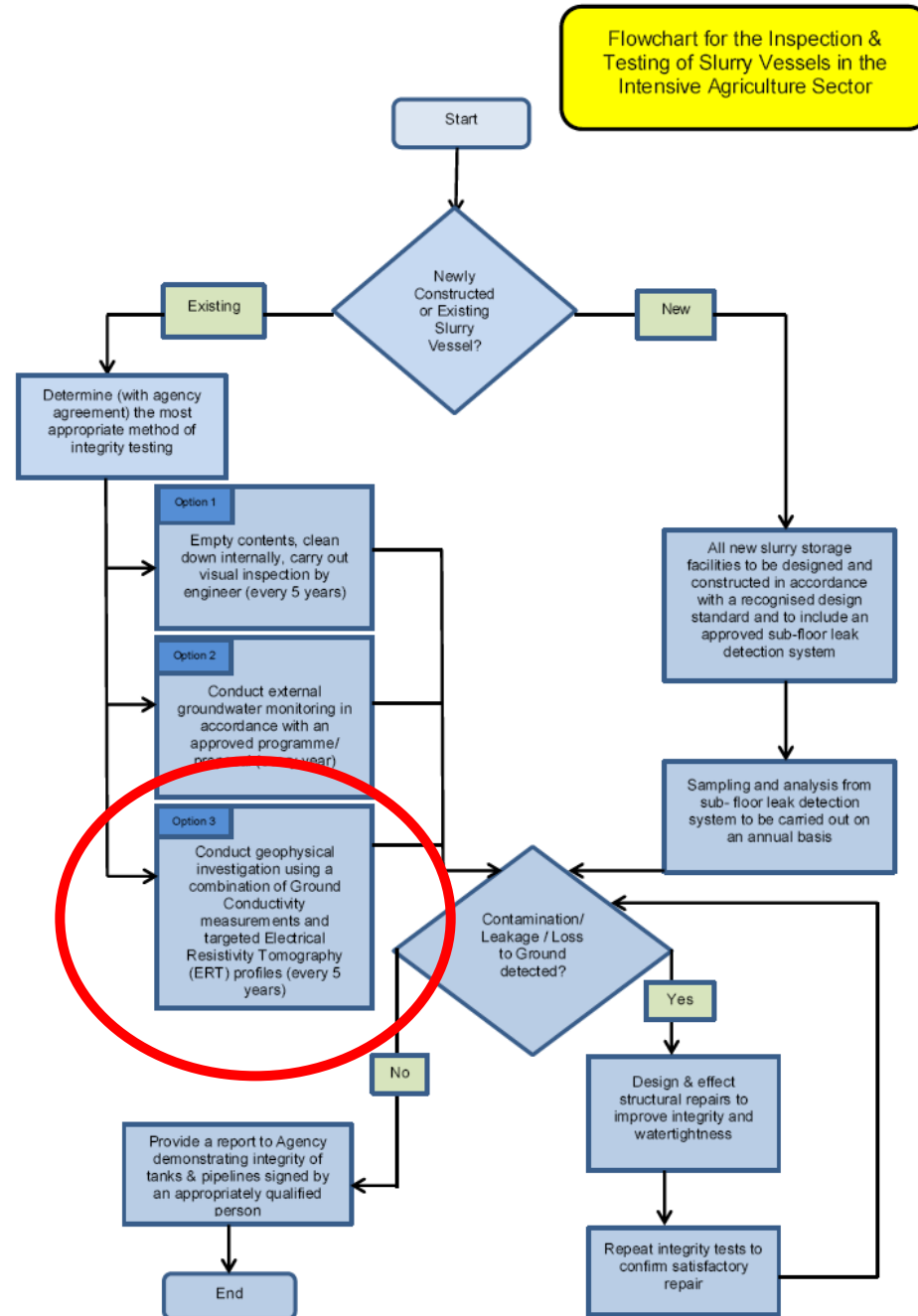
GEOPHYSICAL INVESTIGATION OF SLURRY VESSELS IN THE INTENSIVE AGRICULTURAL SECTOR

Andrew Trafford
APEX Geoservices Limited

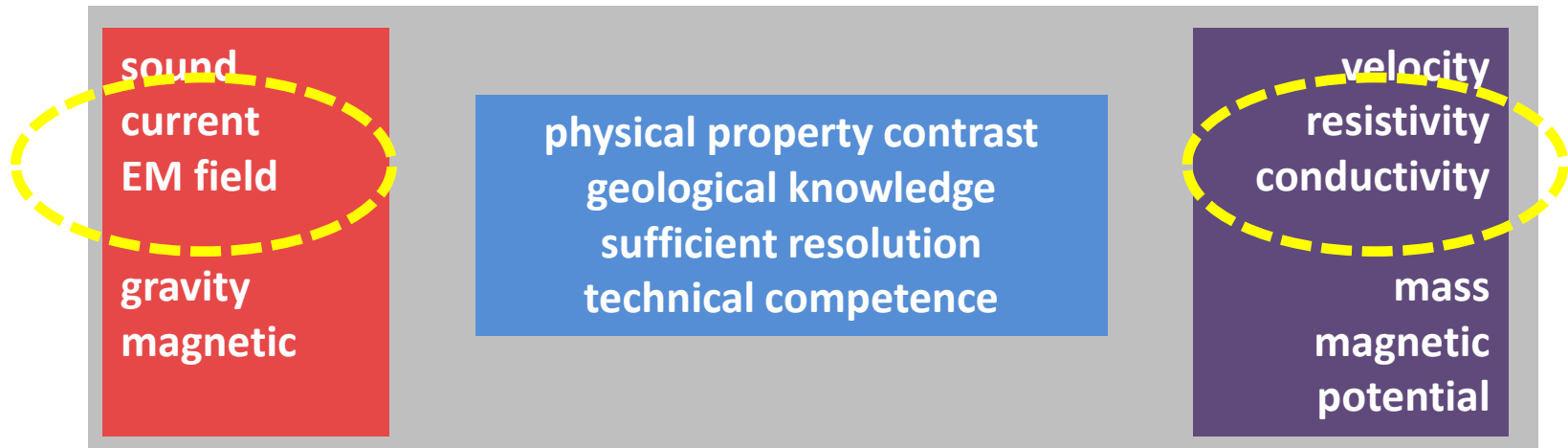
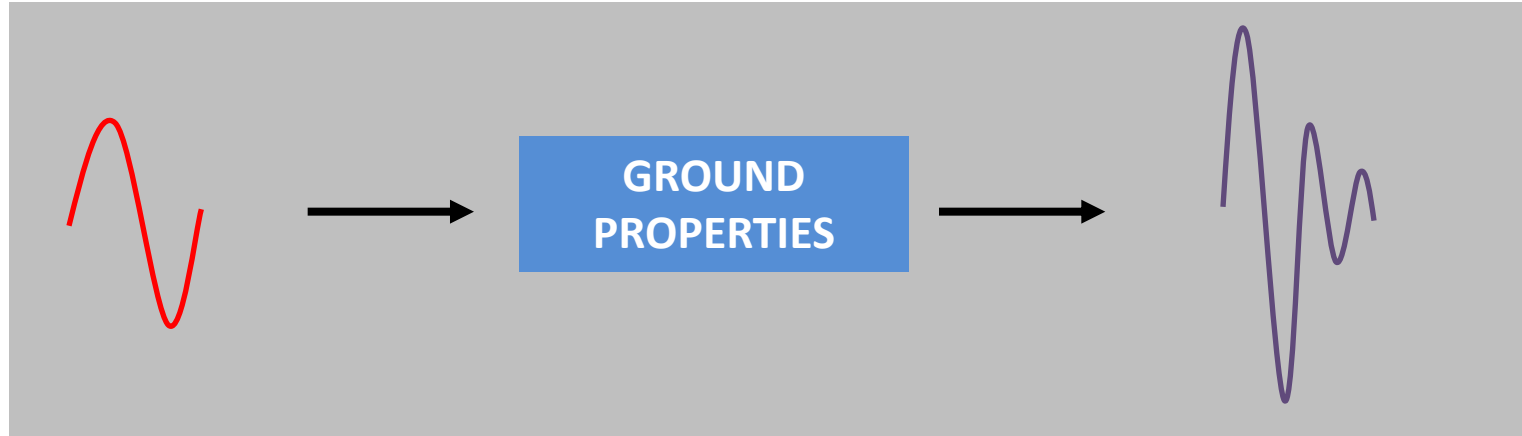
inspection process

Option 3 Geophysical Investigation

Ground Conductivity
Electrical Resistivity Tomography
(ERT)



how does geophysics work?

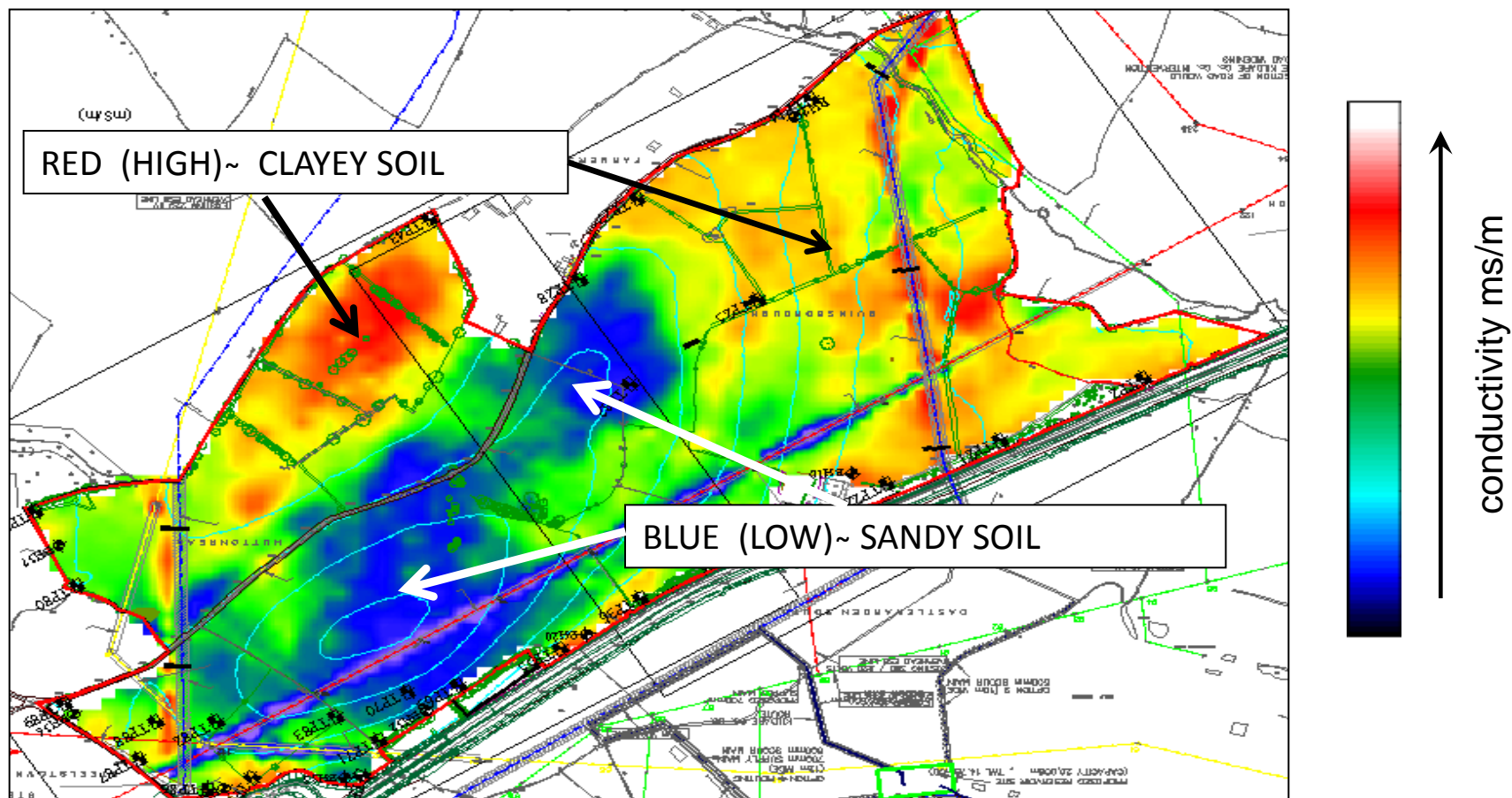


ground conductivity

non-contacting electromagnetic survey (EM31)



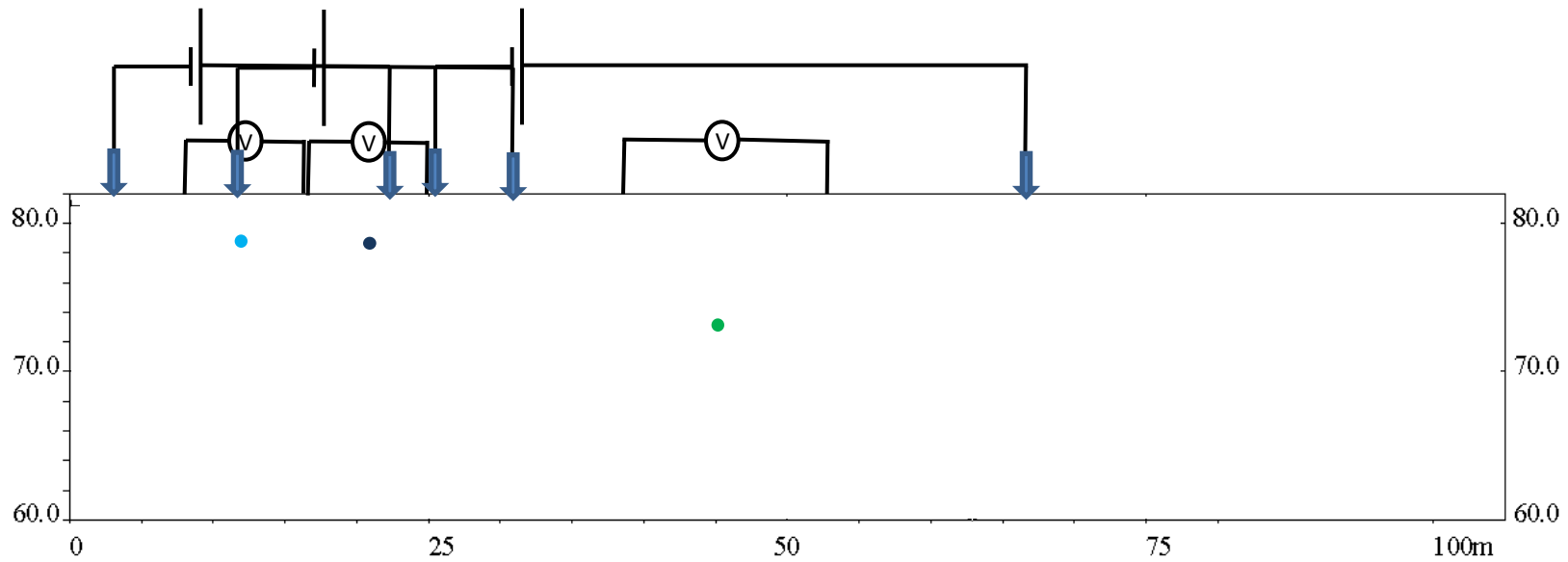
ground conductivity map from EM31 survey



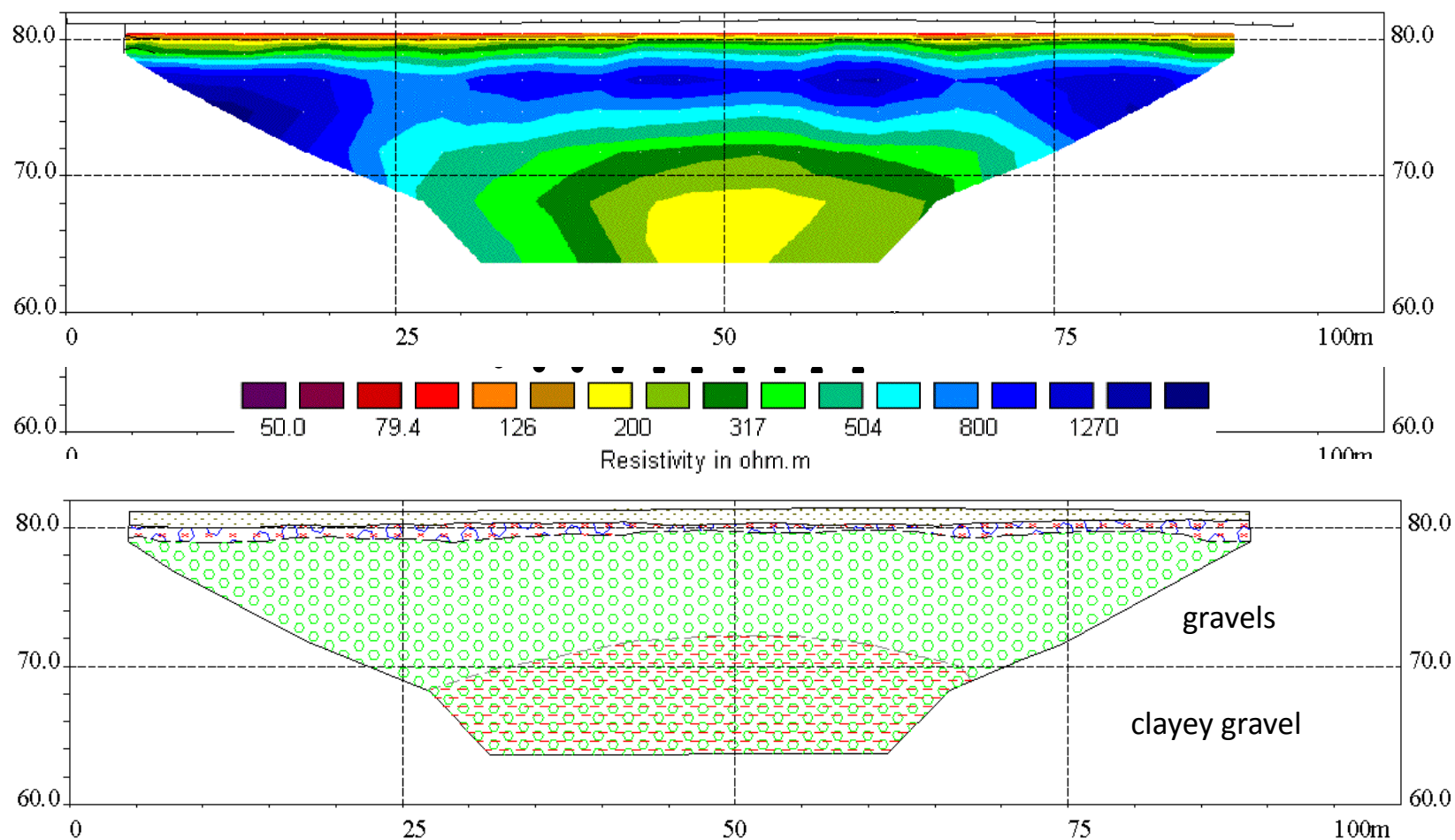
Electrical Resistivity Tomography (ERT)

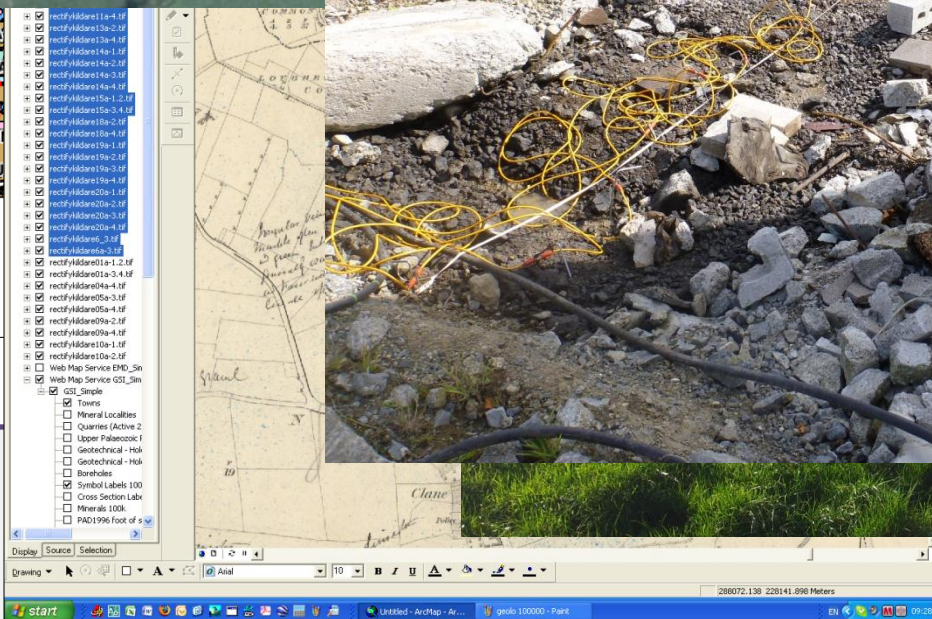
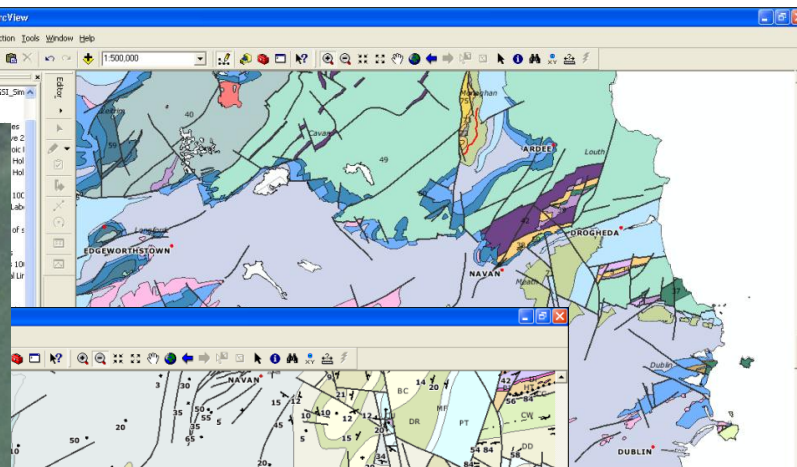


Electrical Resistivity Tomography (ERT)



soil layering – ground resistivity





inspection process

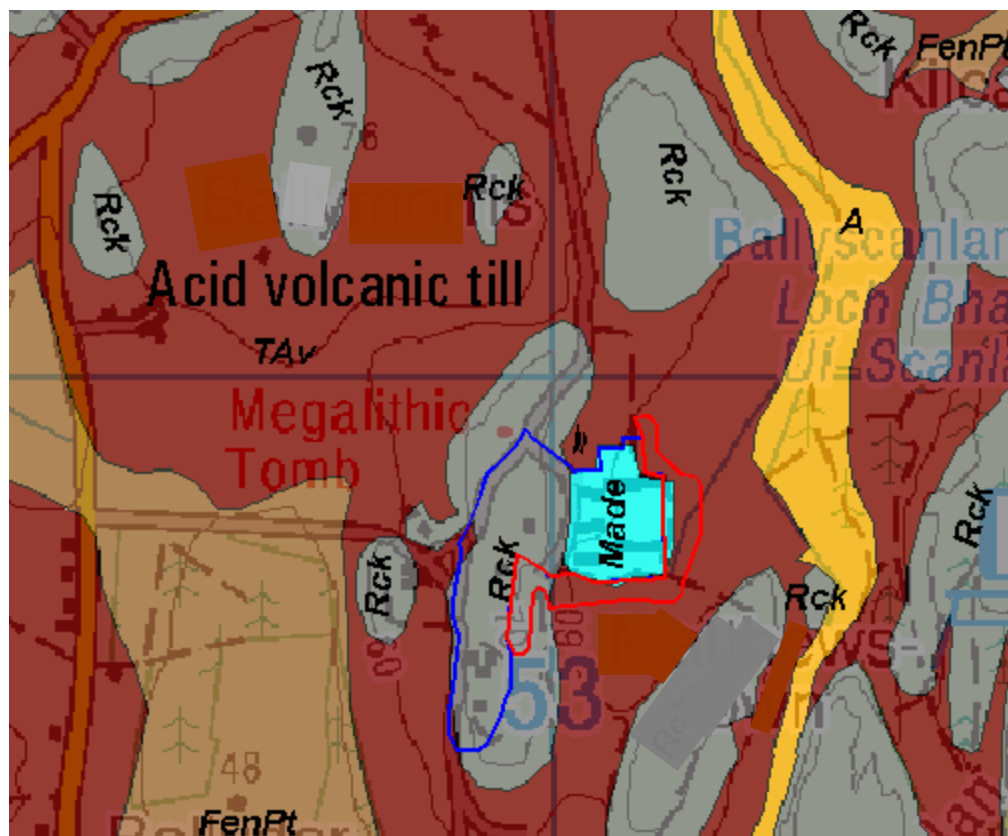
suitability of site for geophysical assessment

APPENDIX I

1. Details of proposed suitably qualified consultant to carry out geophysics survey (See www.gai.ie)
2. Location of site
3. Approximate area of site
4. Details of underlying bedrock
5. Details of underlying soil type
6. Previous use of the site
7. Length of time site has been in operation
8. Details of any material deposited or known contamination onsite (including location)
9. Details of whether the site is susceptible to flooding and water table level
10. Confirmation of whether access available into the surrounding land
11. Details of type of fencing on or around the site and proximity to proposed survey
12. Details of underground services at the site and location
13. Details of surface conditions across the site
14. Groundwater flow direction beneath the site
15. Proposed geophysics methodology to be used for survey
16. Proposed locations to carry out geophysics survey at the site

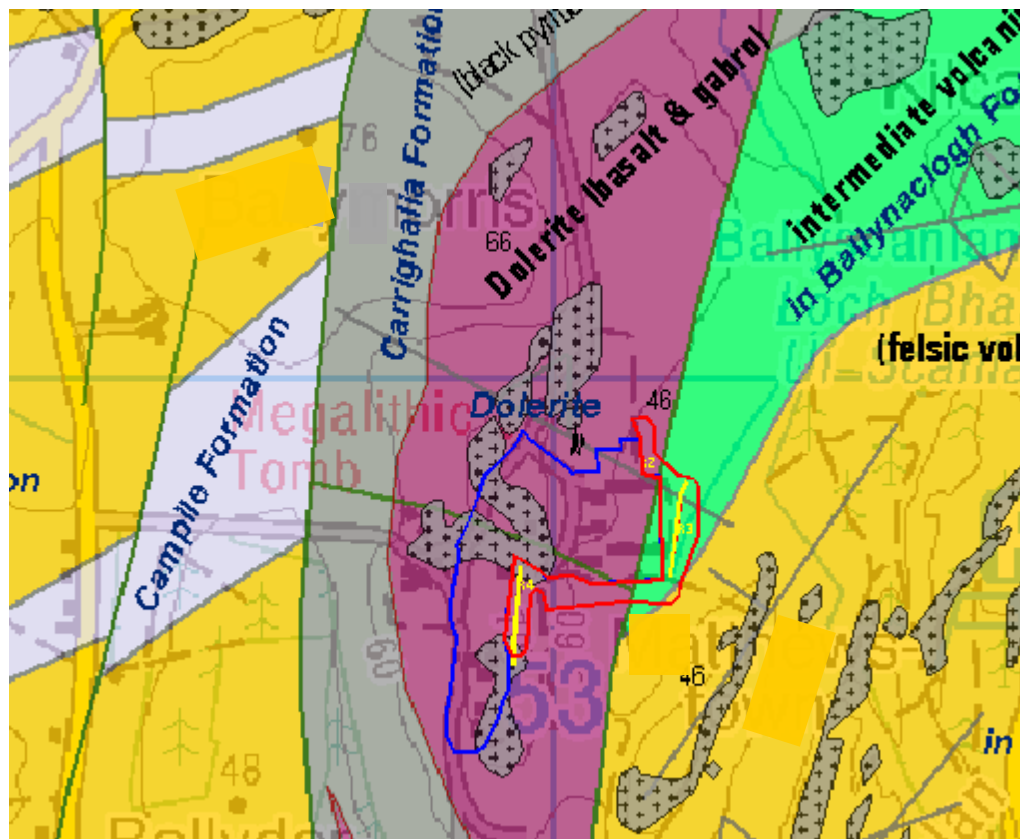
case study

soils map

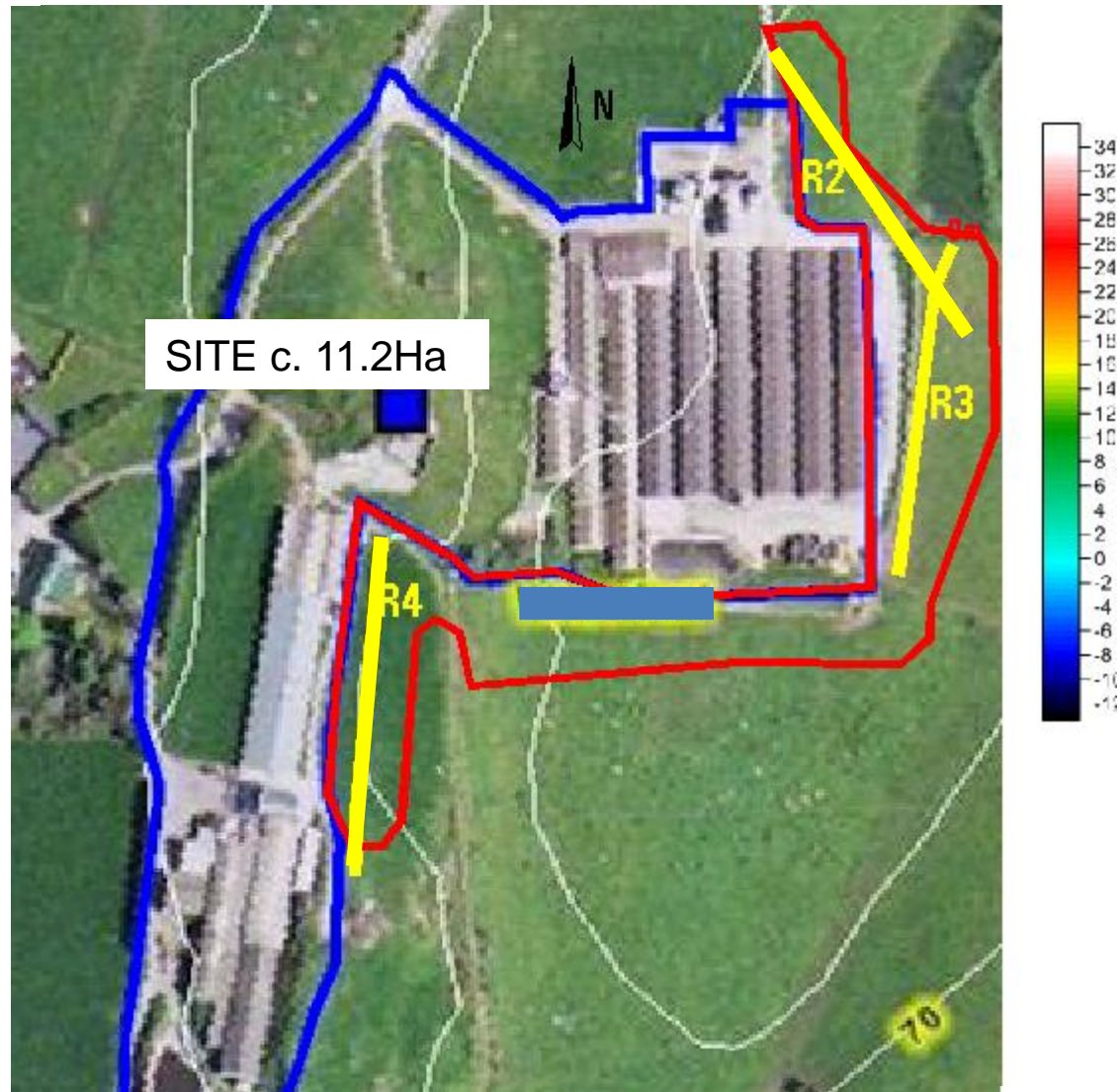


case study

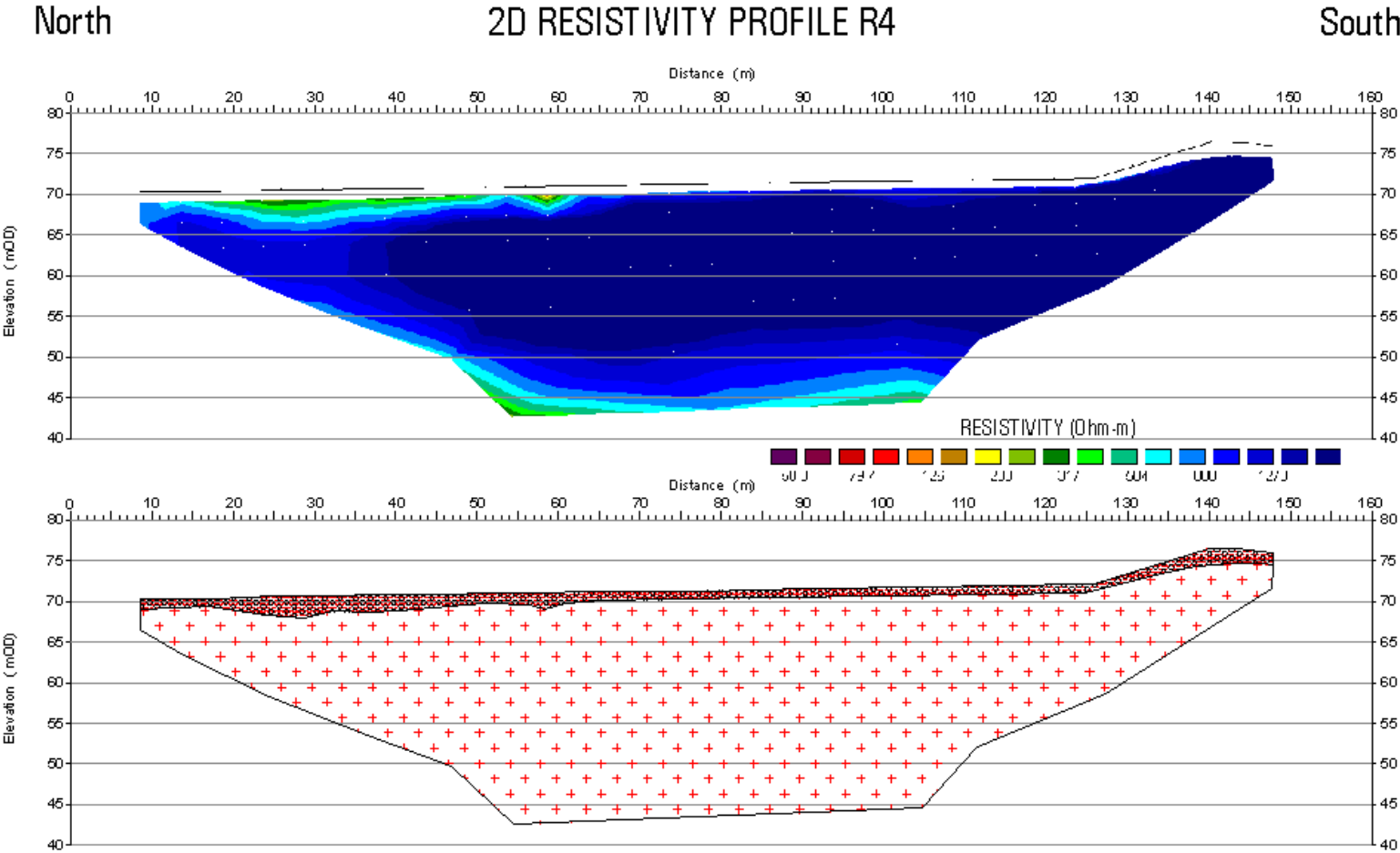
bedrock map



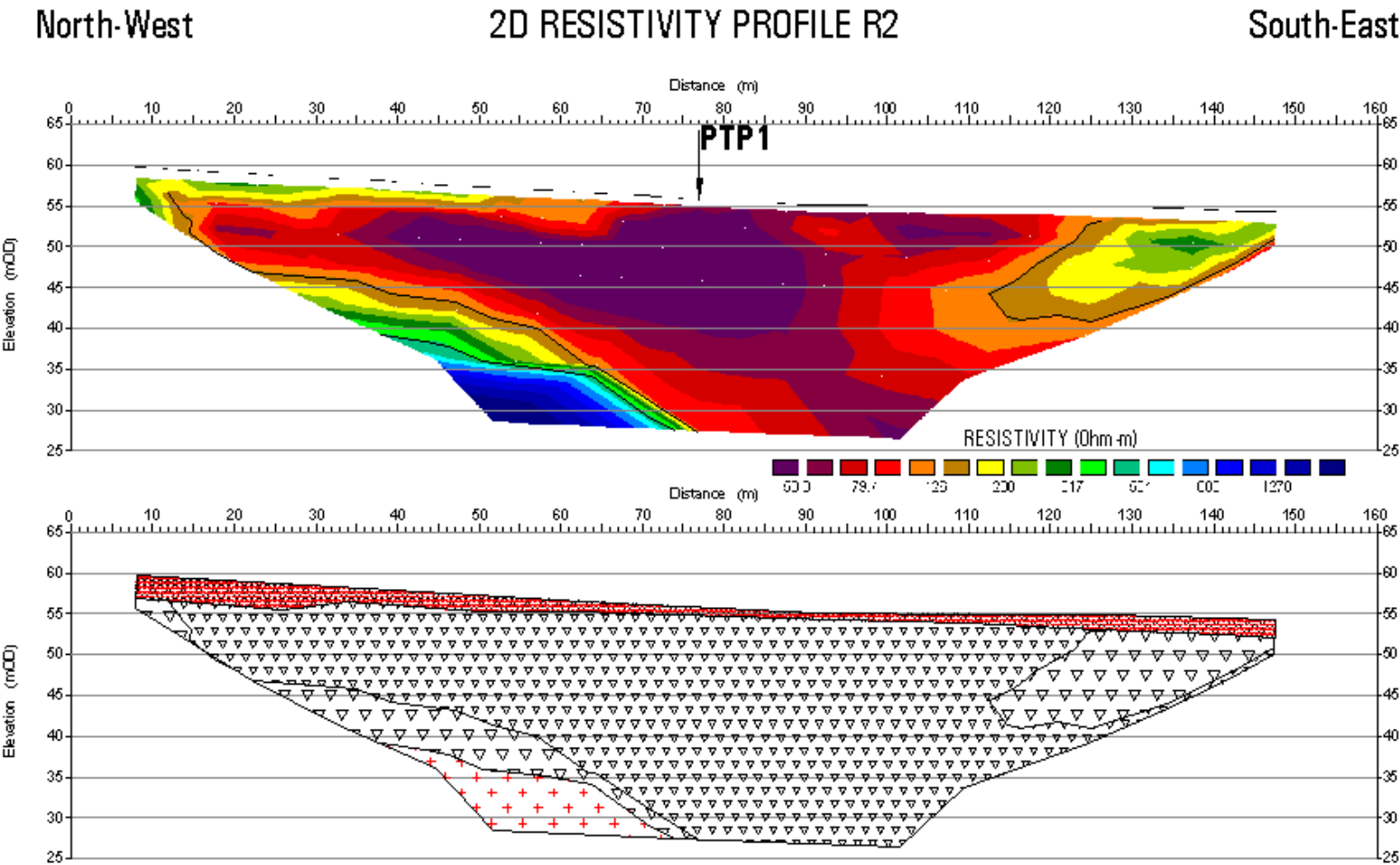
case study



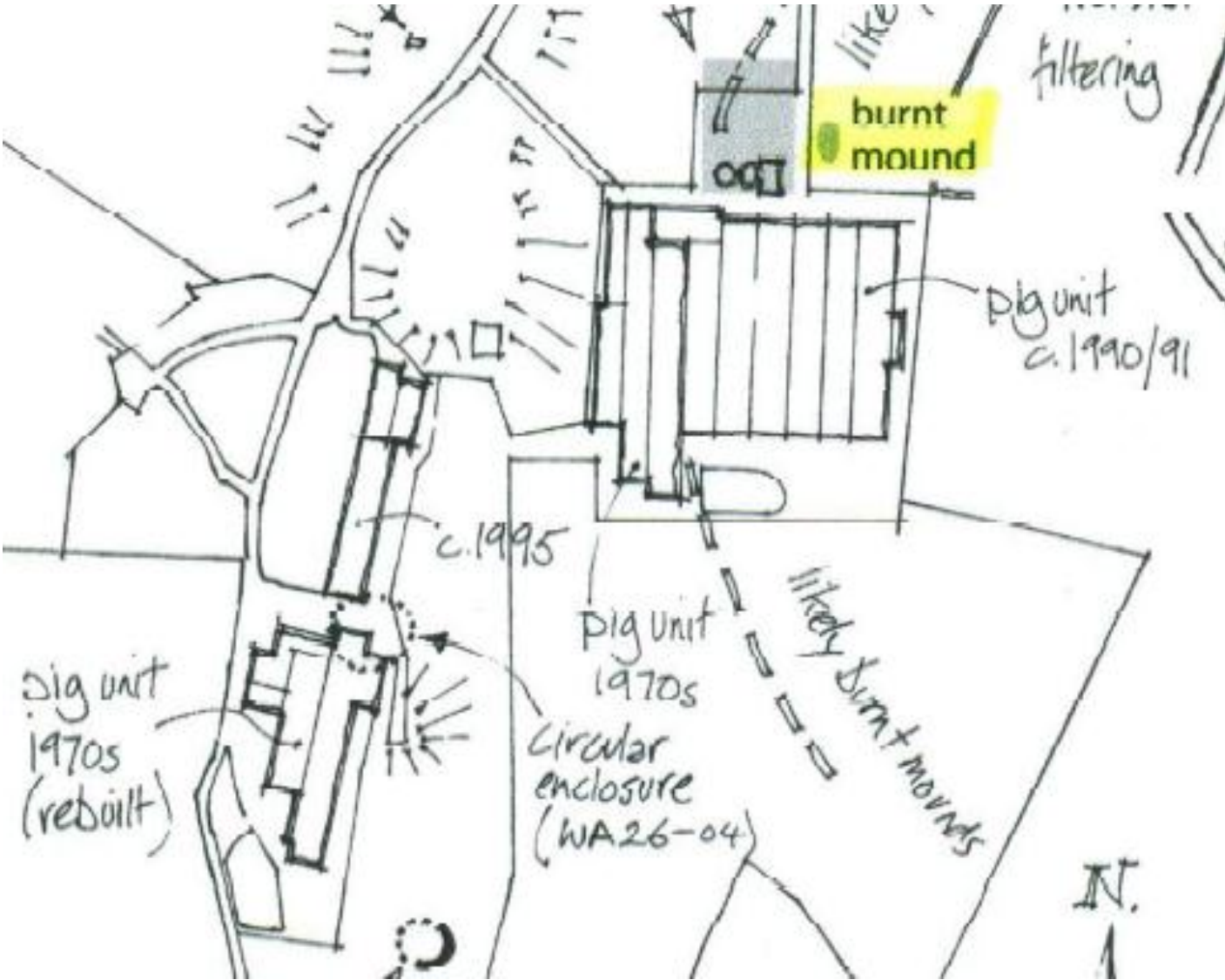
case study – ERT profile R4



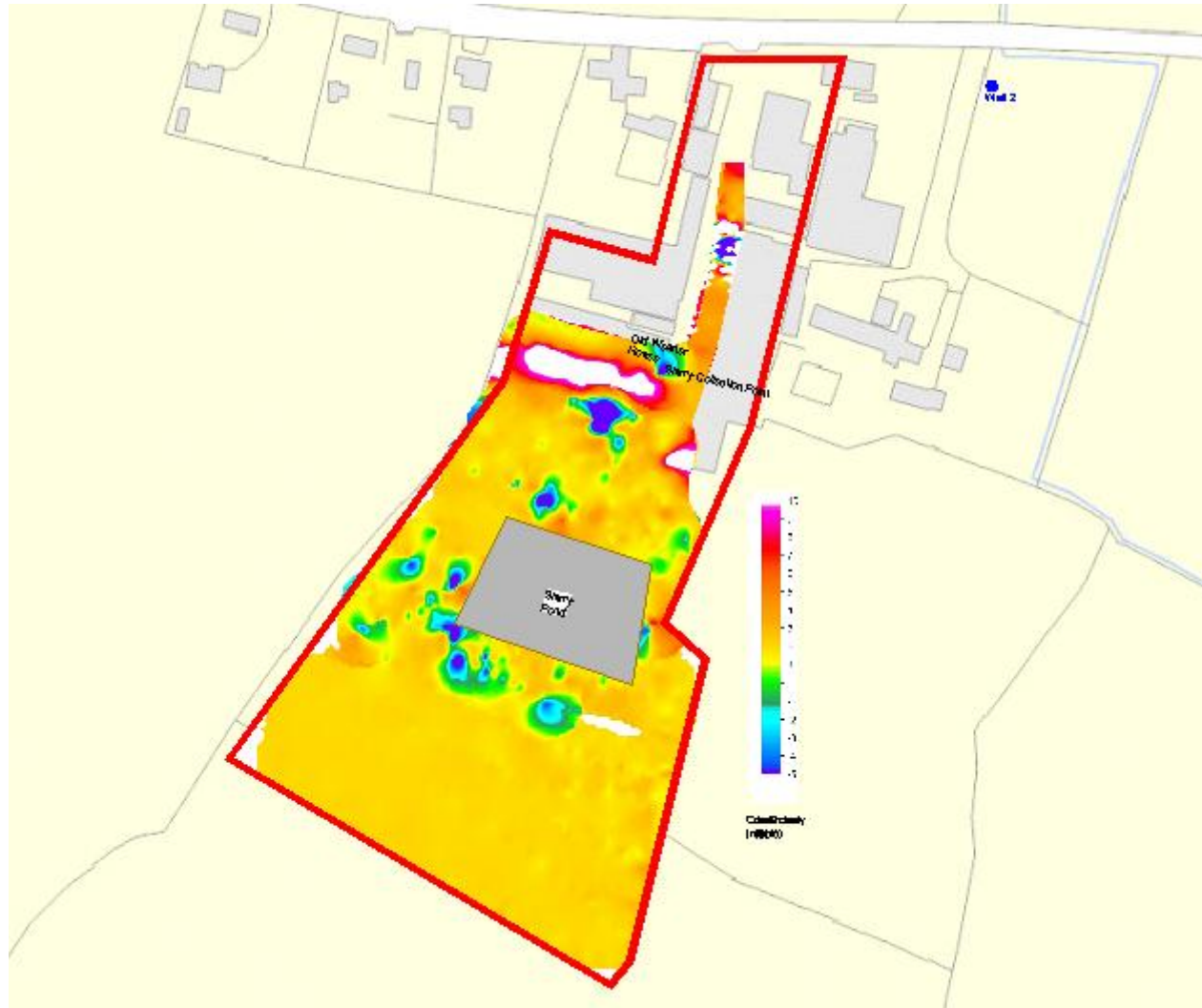
case study – ERT profile R4



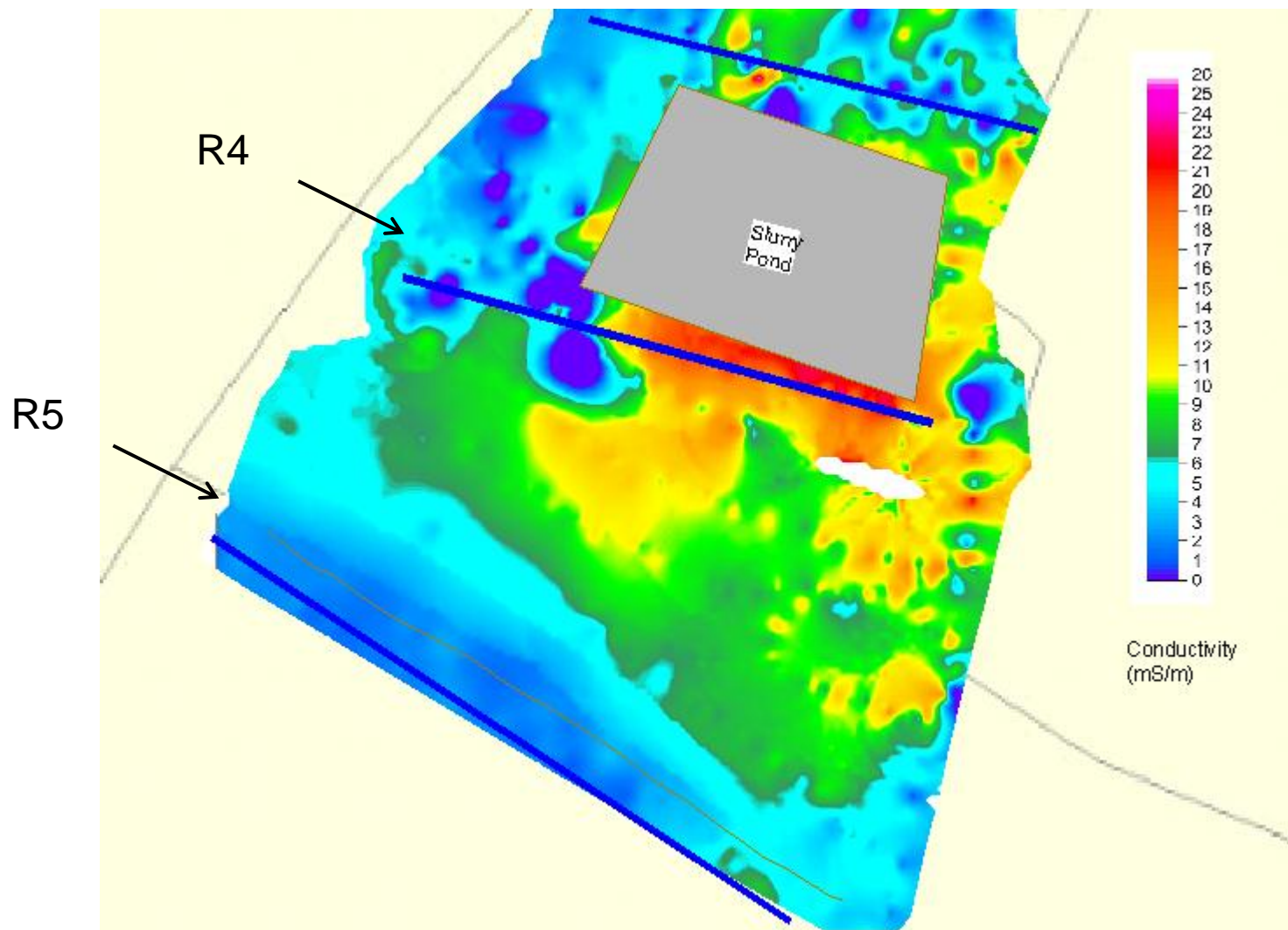
case study



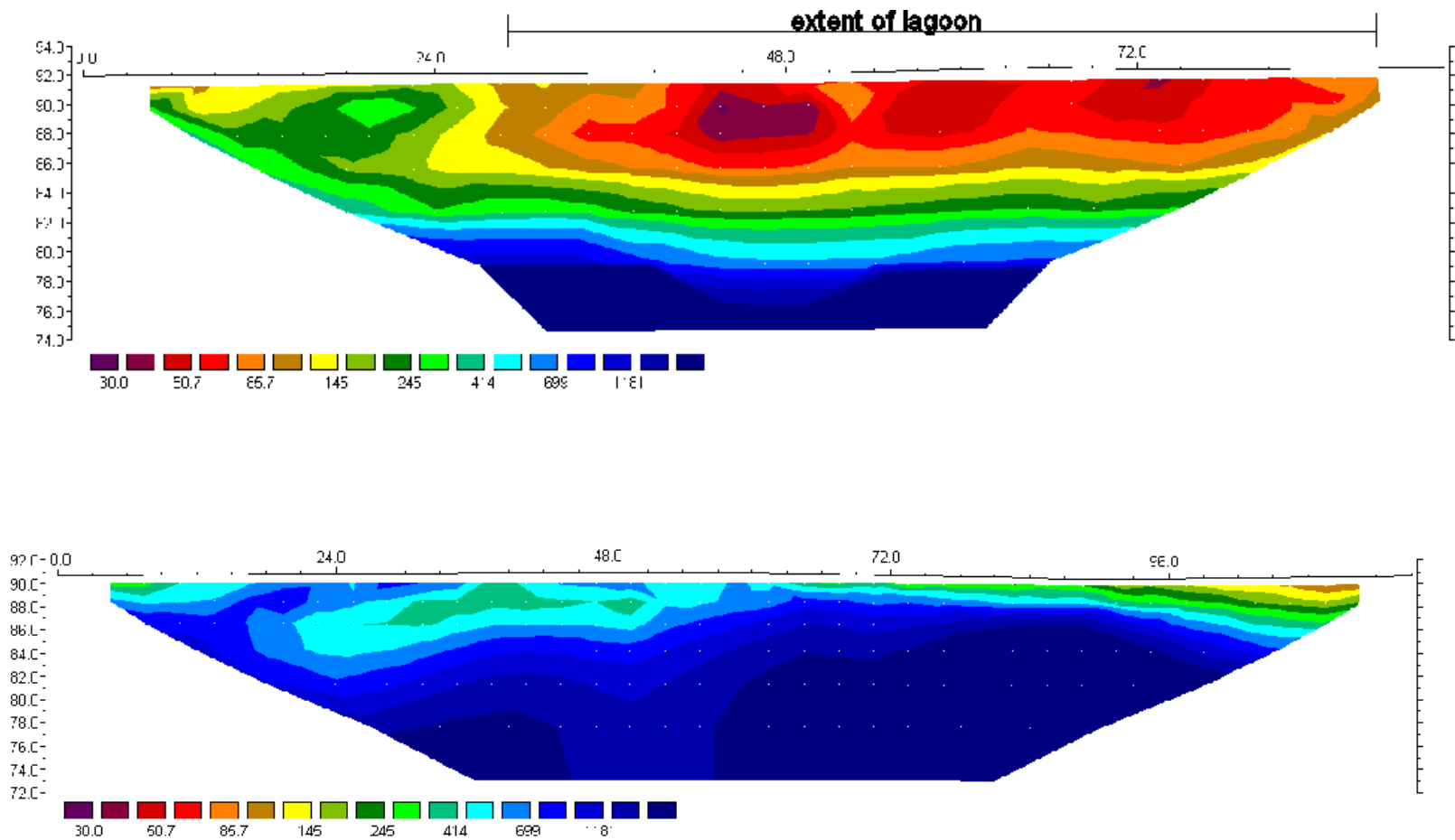
case study (2)



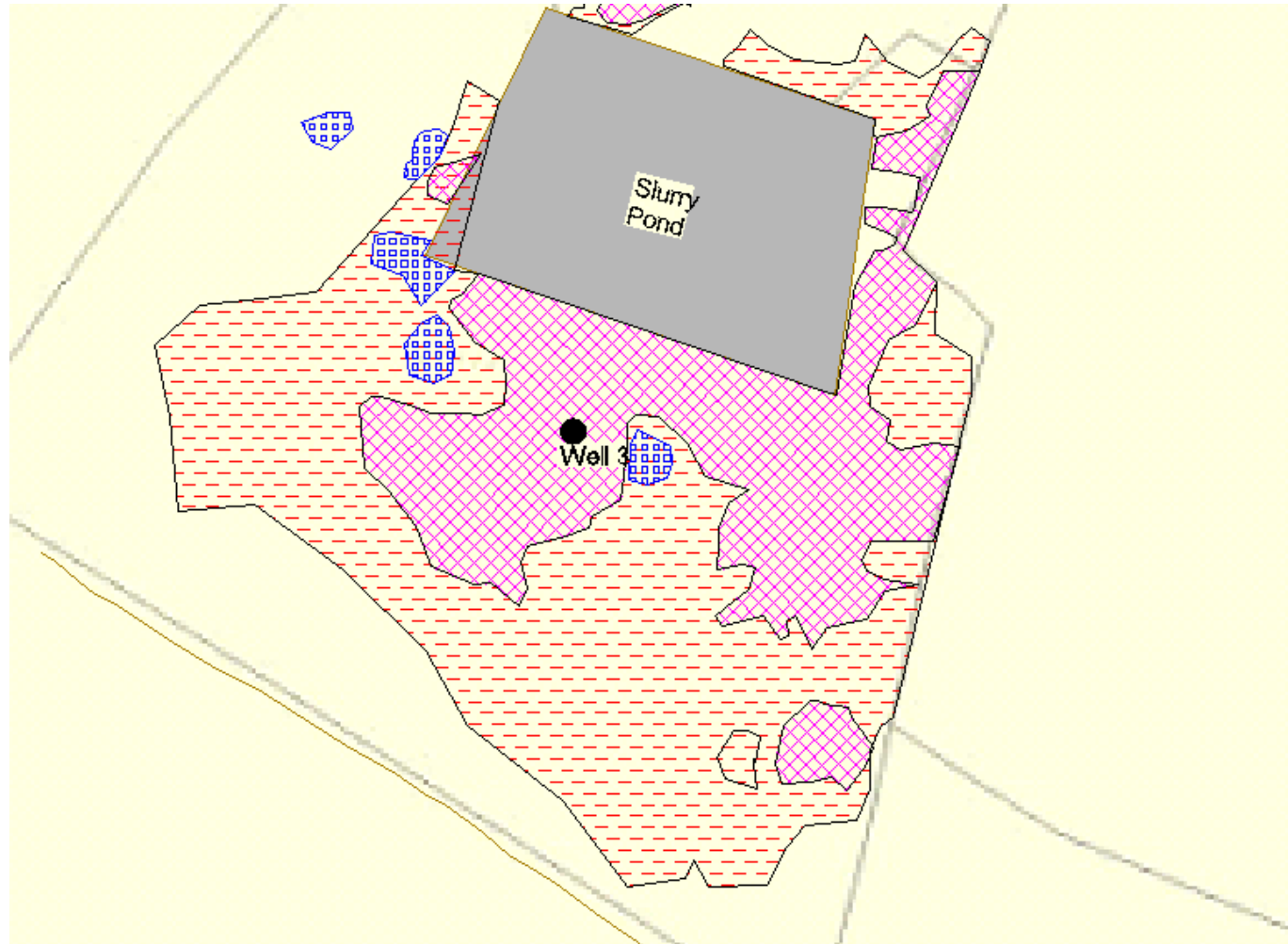
case study (2) – ground conductivity



case study (2) – ERT profiles



case study (2) – summary map



summary

