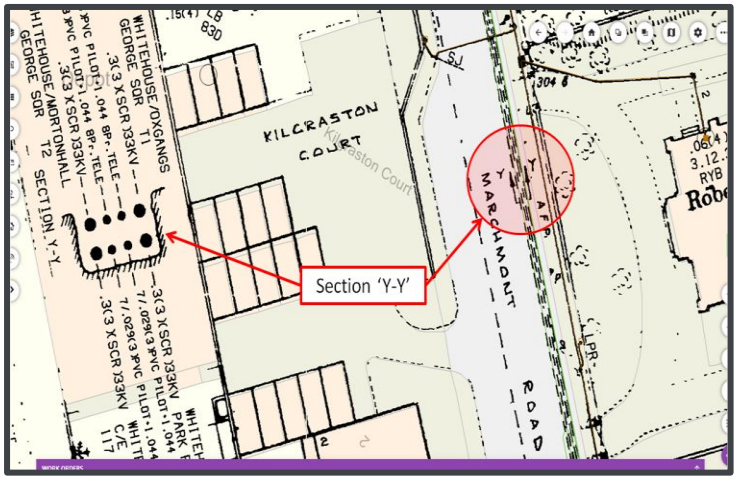
Live 33kV Cable Spiked in Error

A live 33kV cable was spiked on 1st August in Edinburgh resulting in the loss of supply to 15,000 customers.

Works were progressing on a fault repair with the Geofield records on the Toughpad device being used. The Senior Authorised Person (SAP) failed to zoom in sufficiently to establish that there were three 'in service' 33kV cables at the work location. At the scale he viewed the records it appeared there were only two 33kV cables.

Records with no Raster displayed

Additionally, the SAP did not make reference to the black raster layer which indicated that there were actually four 33kV cables within the work area. One of them was out of use.



Zoomed in with Raster displayed

Hence only the top two 33kV cables were exposed. The Lee Vaughan signal injection device was applied and a rise and fall of the signal volume was detected but he did not check to the side and underneath the cable in accordance with PSSI 5 Appendix 2 section 3.1(iv). The actual cable he was trying to identify was directly below the one he spiked.

Recommendations and action points

1. Care must be taken when viewing records to ensure that close proximity cables are identified by zooming to an appropriate scale.
2. The black raster should be consulted to aid understanding when undertaking such work. This can be switched on in Geofield Pro via the Map Groups menu and turn on 33/HV/pilot/black.
3. PSSI 5 must be followed – specifically with regards to Appendix 2, 3.1(iv):

   "Having identified the cable carrying the injected signal, the receiver shall be used to check the area on either side and below the cable to ensure that the signal is not being emitted by an adjacent cable at the side or underneath the identified cable."