

Ground penetrating radar surveys at Wardleys

Site location: NGR SD 36561 42842

Survey type: Ground penetrating radar (GPR) with Mala ProEx 500 MHz antenna. Line spacing 0.3m. Four GPR plots surveyed. Location of GPR plots and existing building surveyed with Leica total station.

Personnel: Andy Binley, Chris Clayton, Dave Berry.

Date of survey: 8 March 2024.

Objectives of survey: to determine subsurface features that may be associated with former warehouse building at the site.



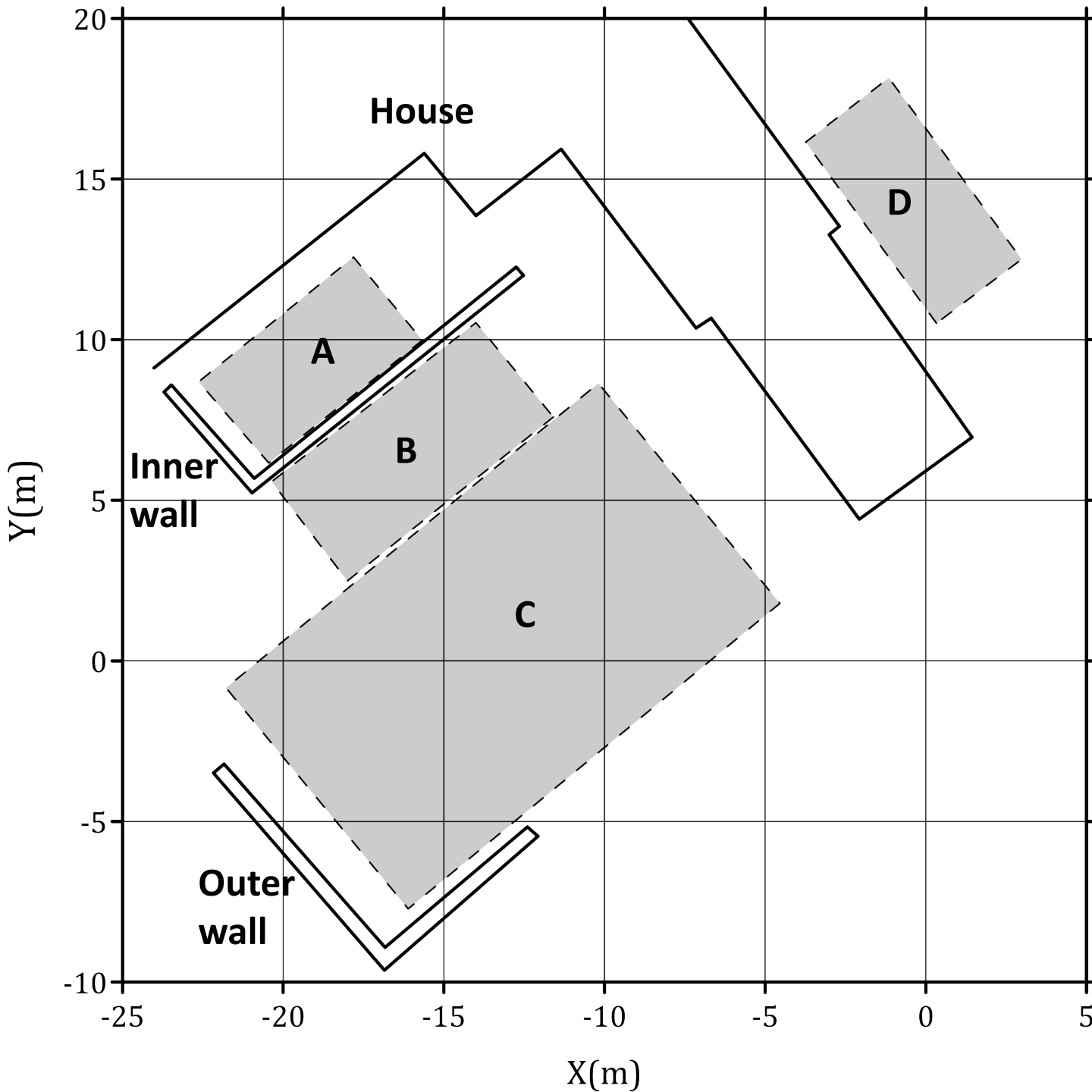
[Video clip of survey](#)

Site location



GPR plots and main features

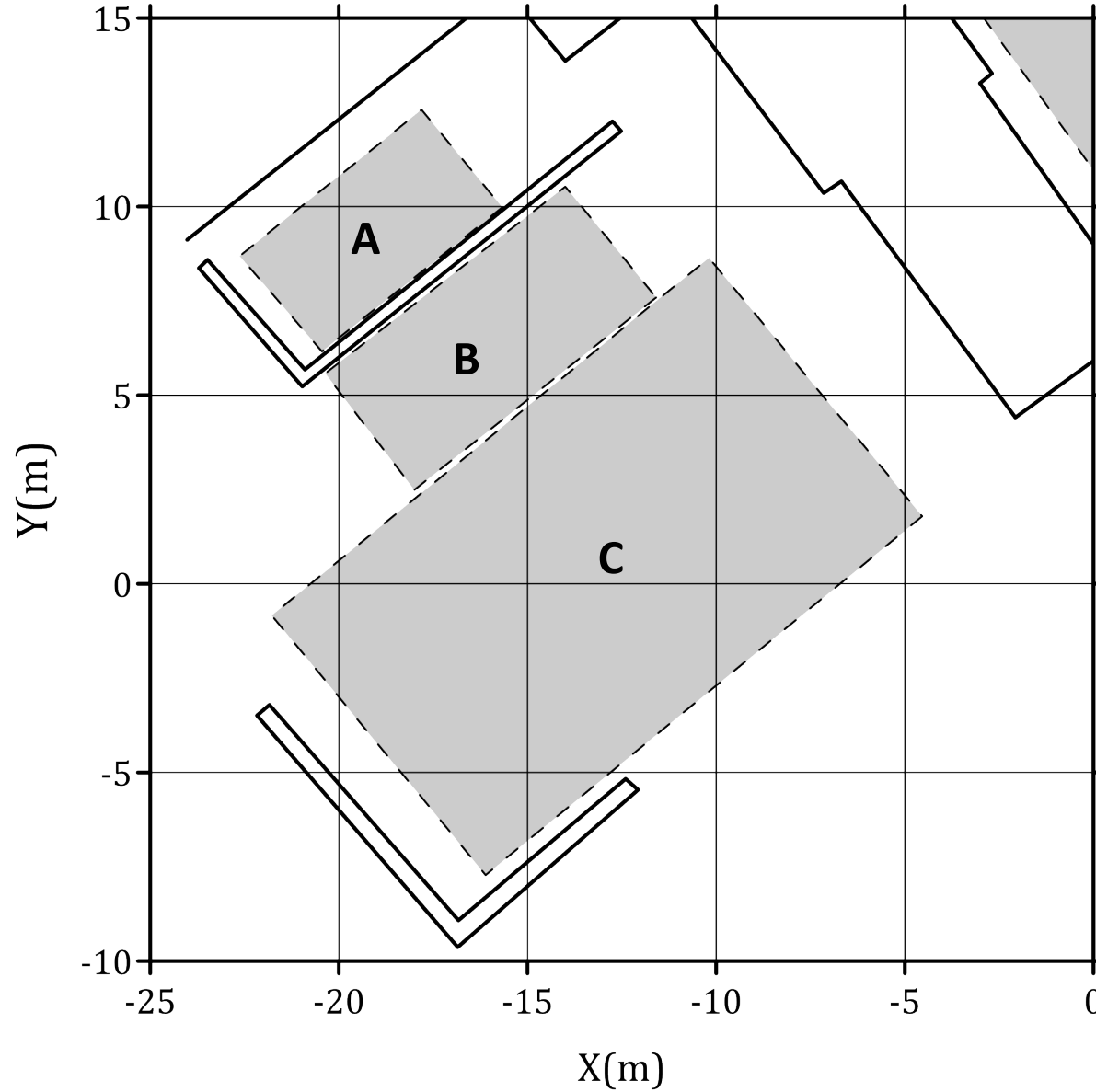
Y direction is approximately 3 degrees N



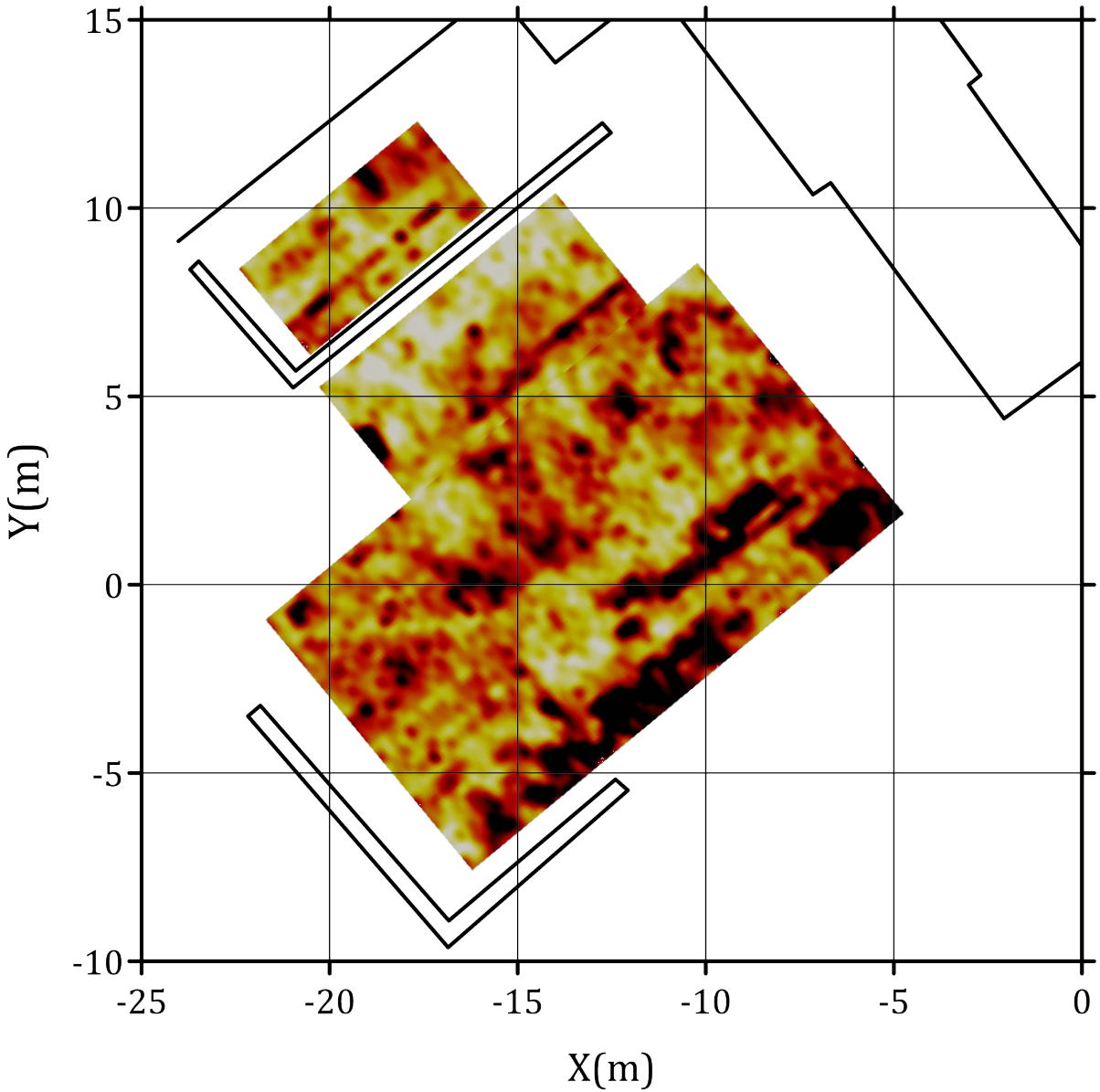


GPR results for plots A,B & C

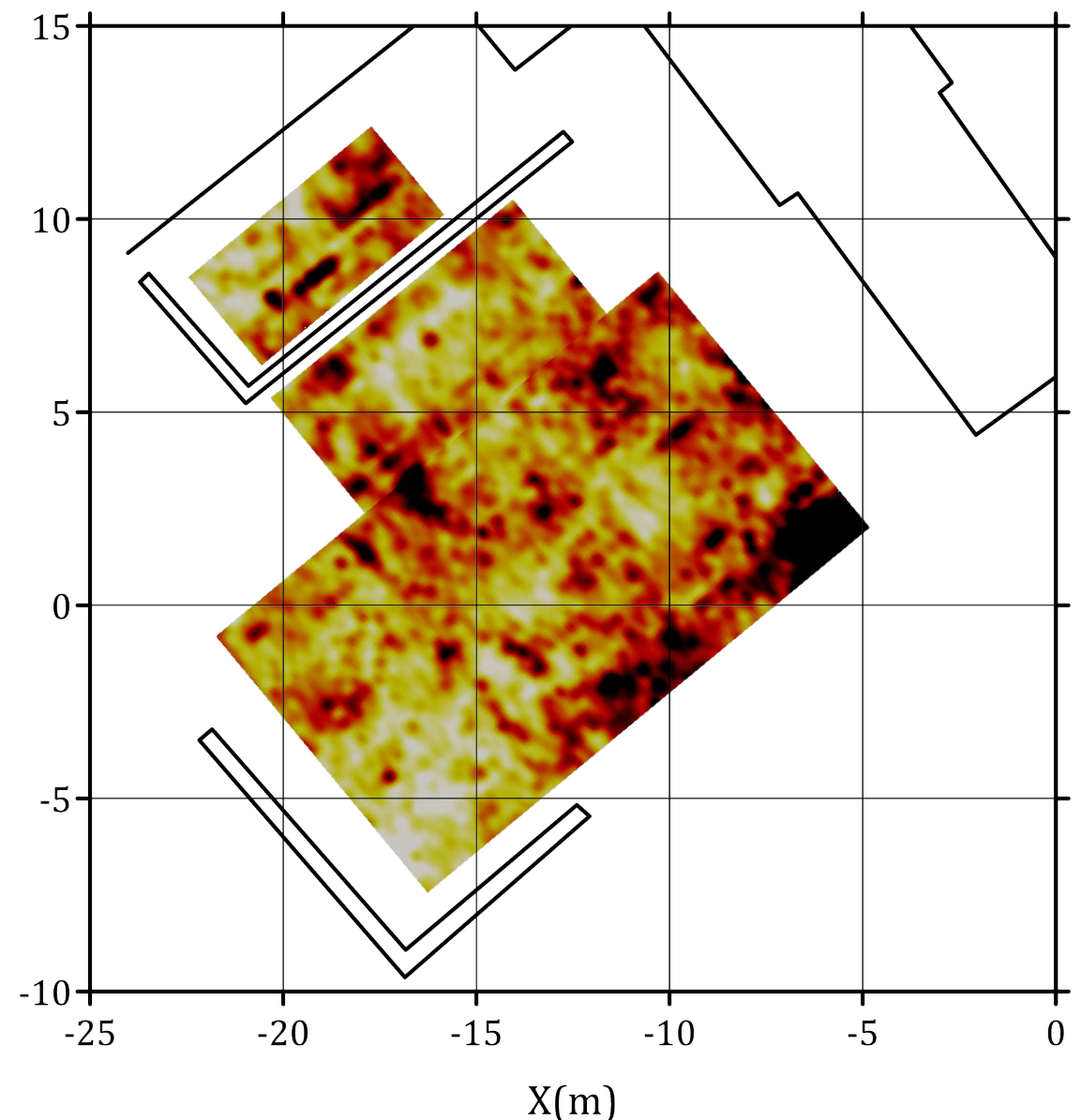
Plot D results have different signal strengths because of the different ground cover, and so these are plotted separately.



Depth: 0.2m

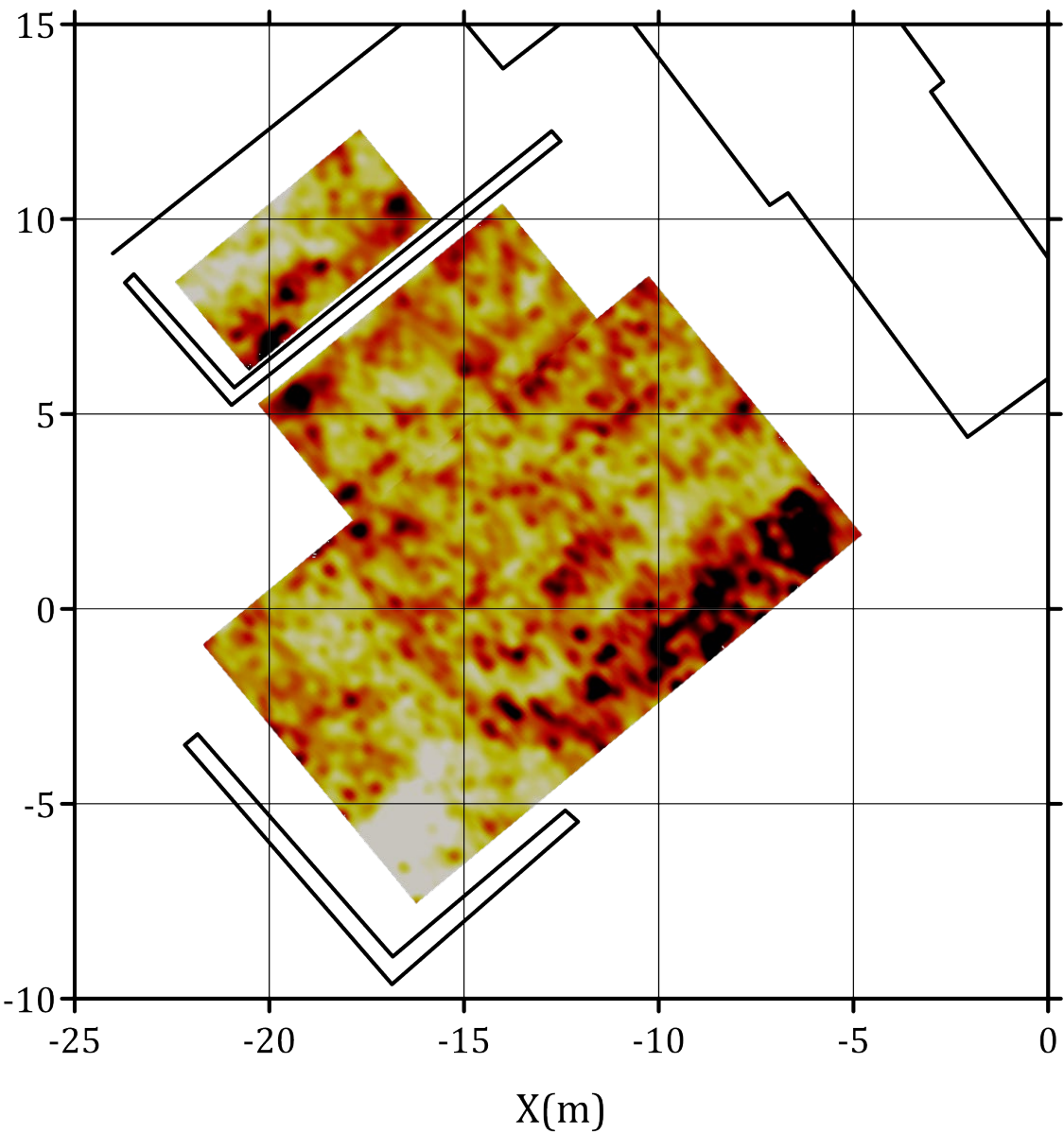


Depth: 0.3m

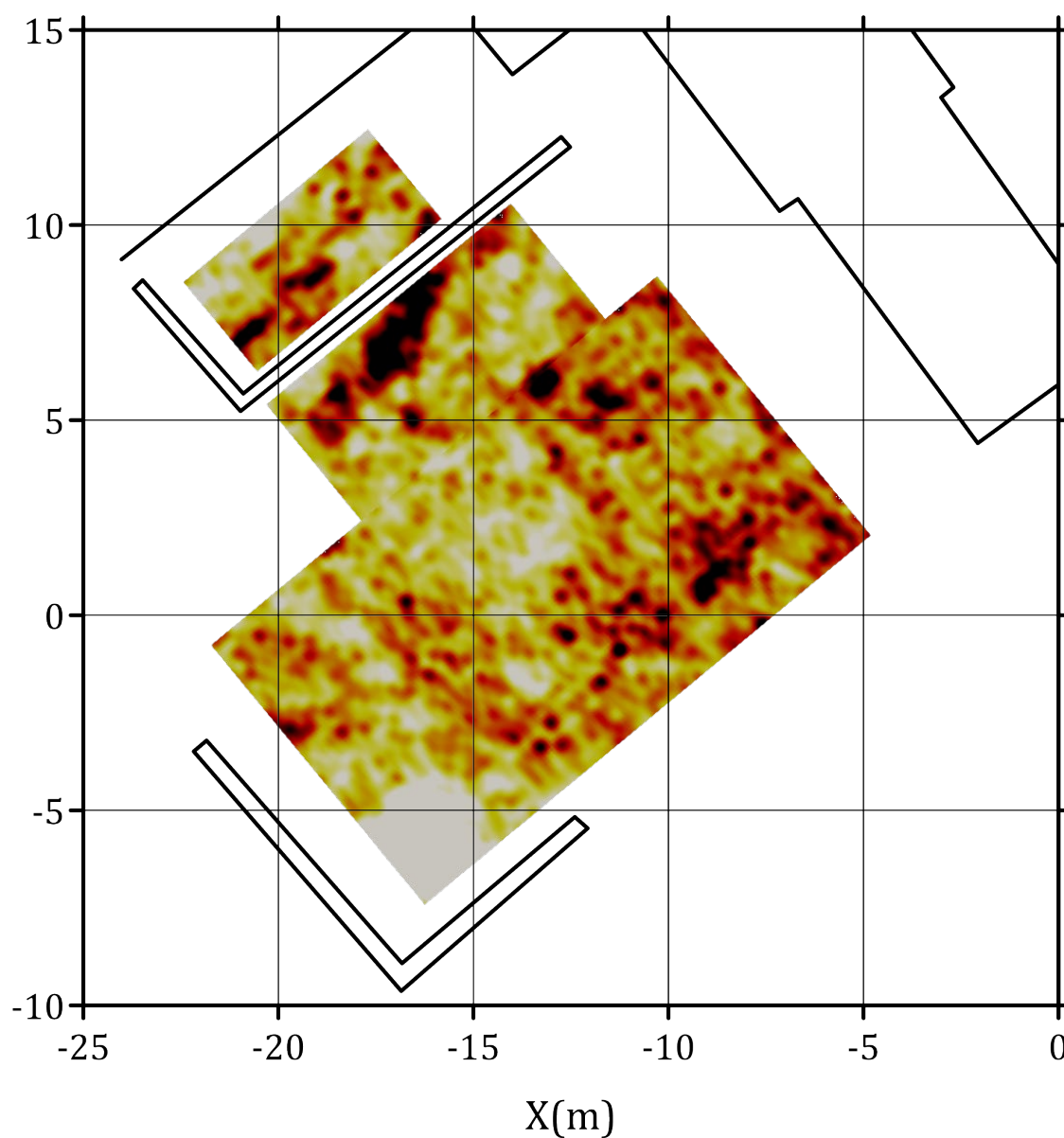


Dark colours indicate reflection of GPR signal

Depth: 0.4m

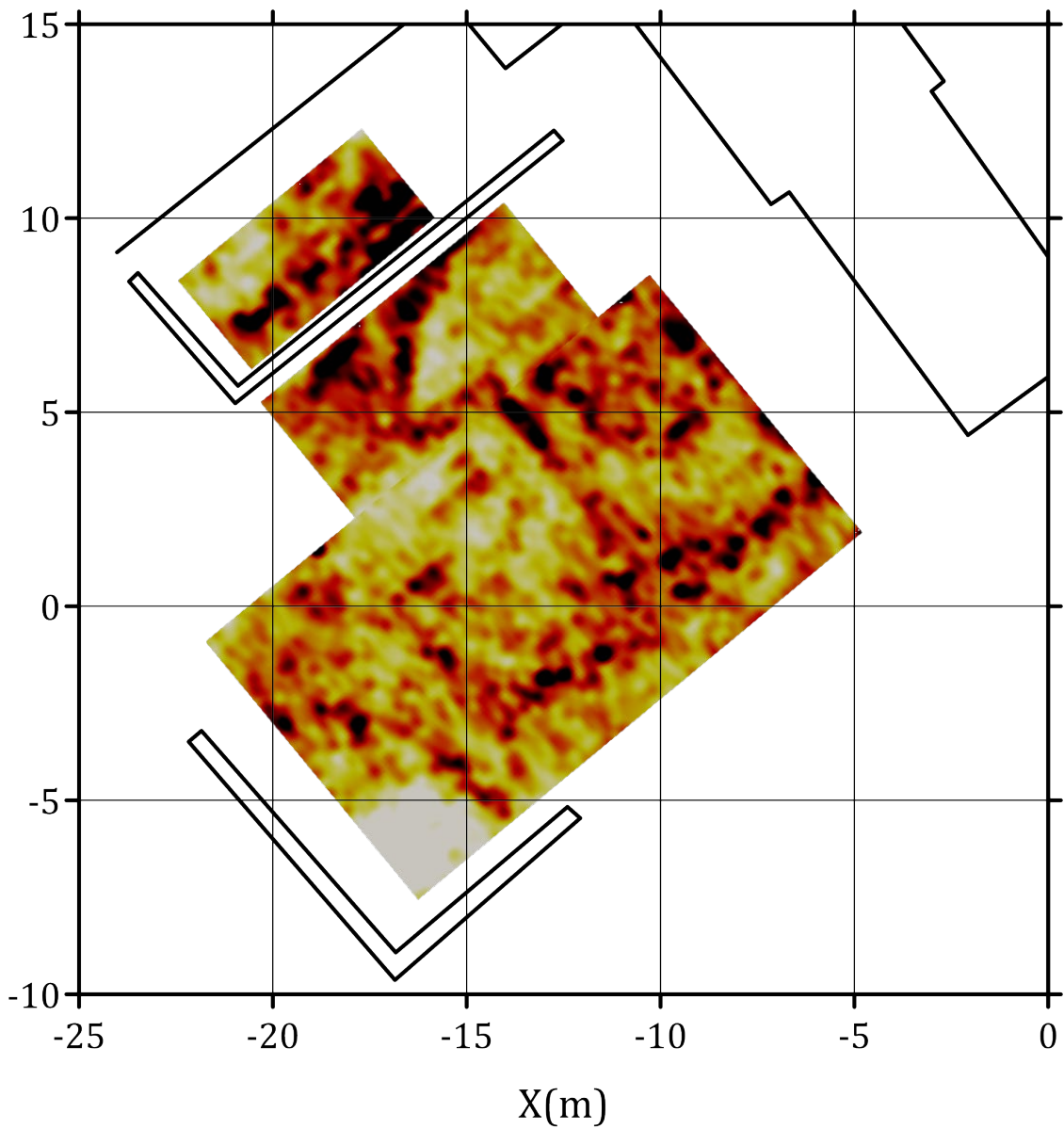


Depth: 0.5m

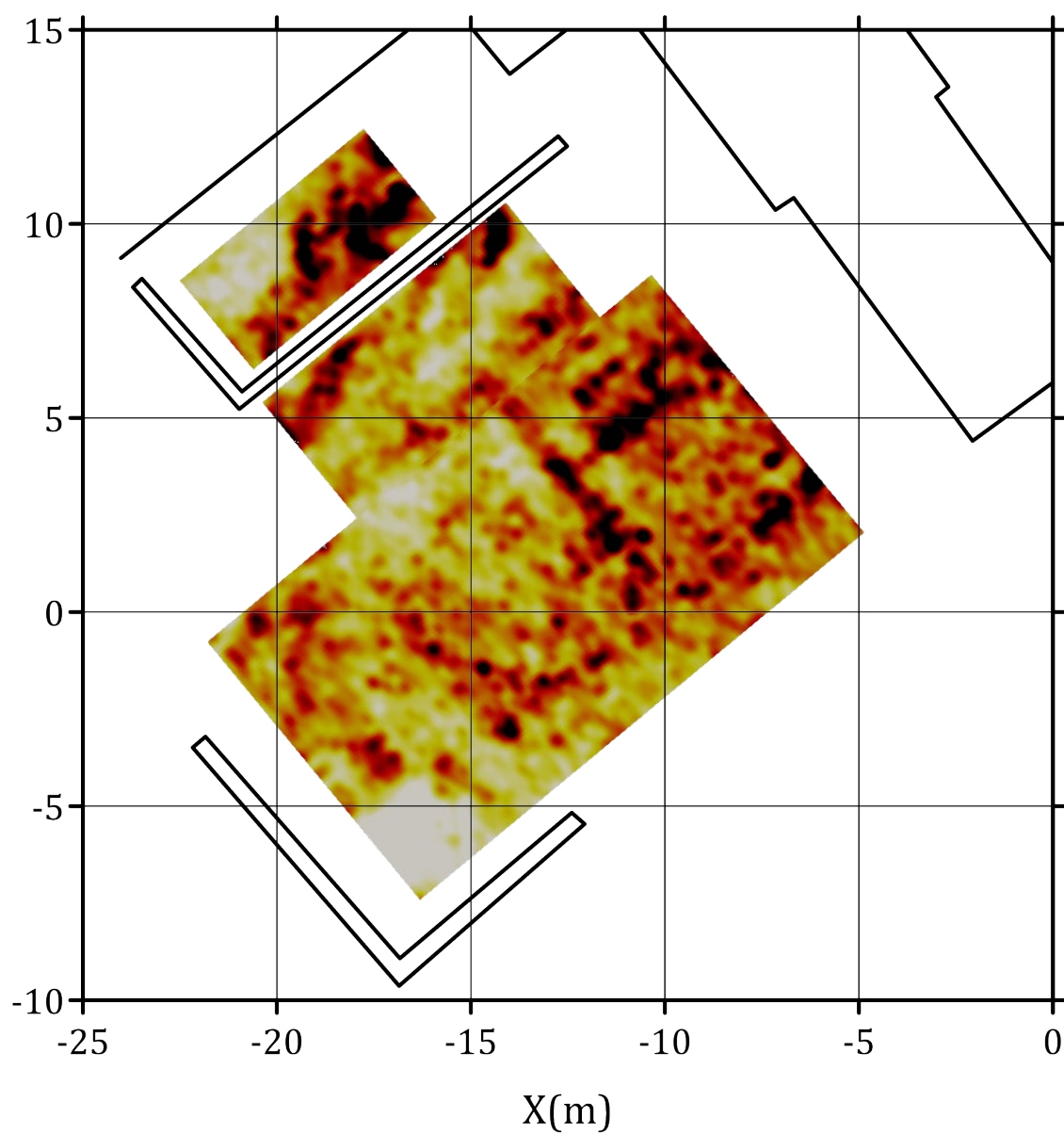


Dark colours indicate reflection of GPR signal

Depth: 0.6m

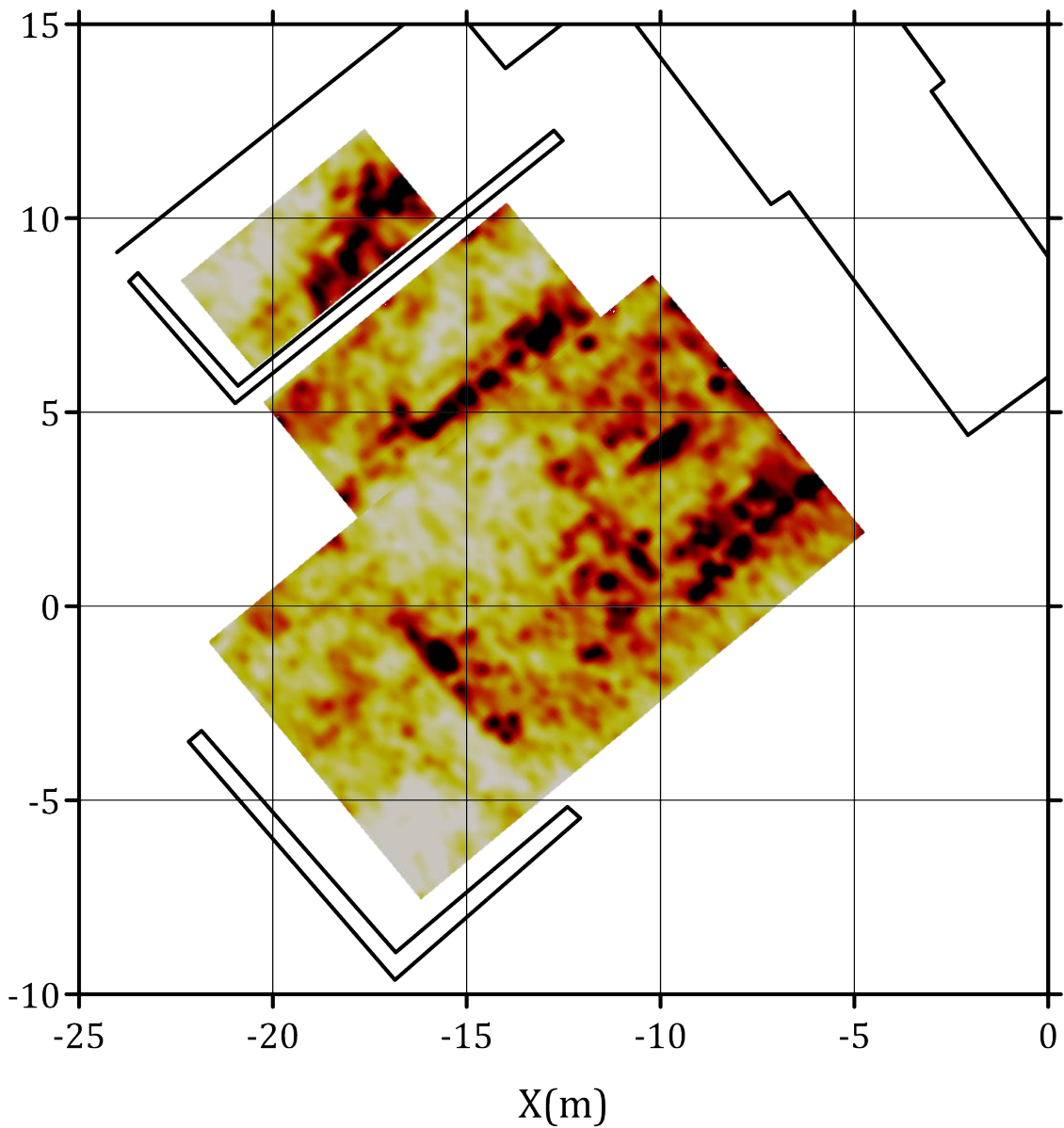


Depth: 0.7m

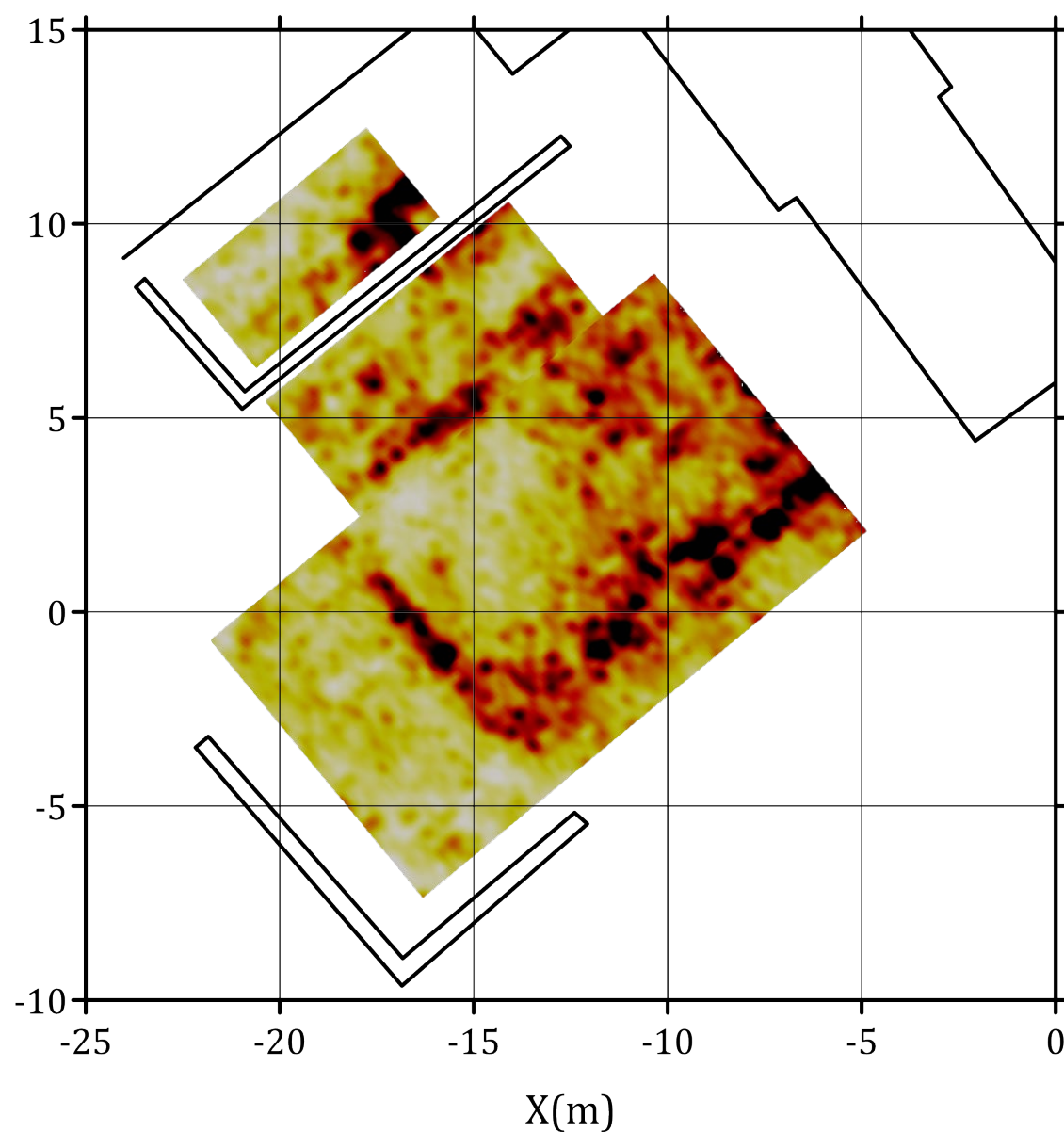


Dark colours indicate reflection of GPR signal

Depth: 0.8m

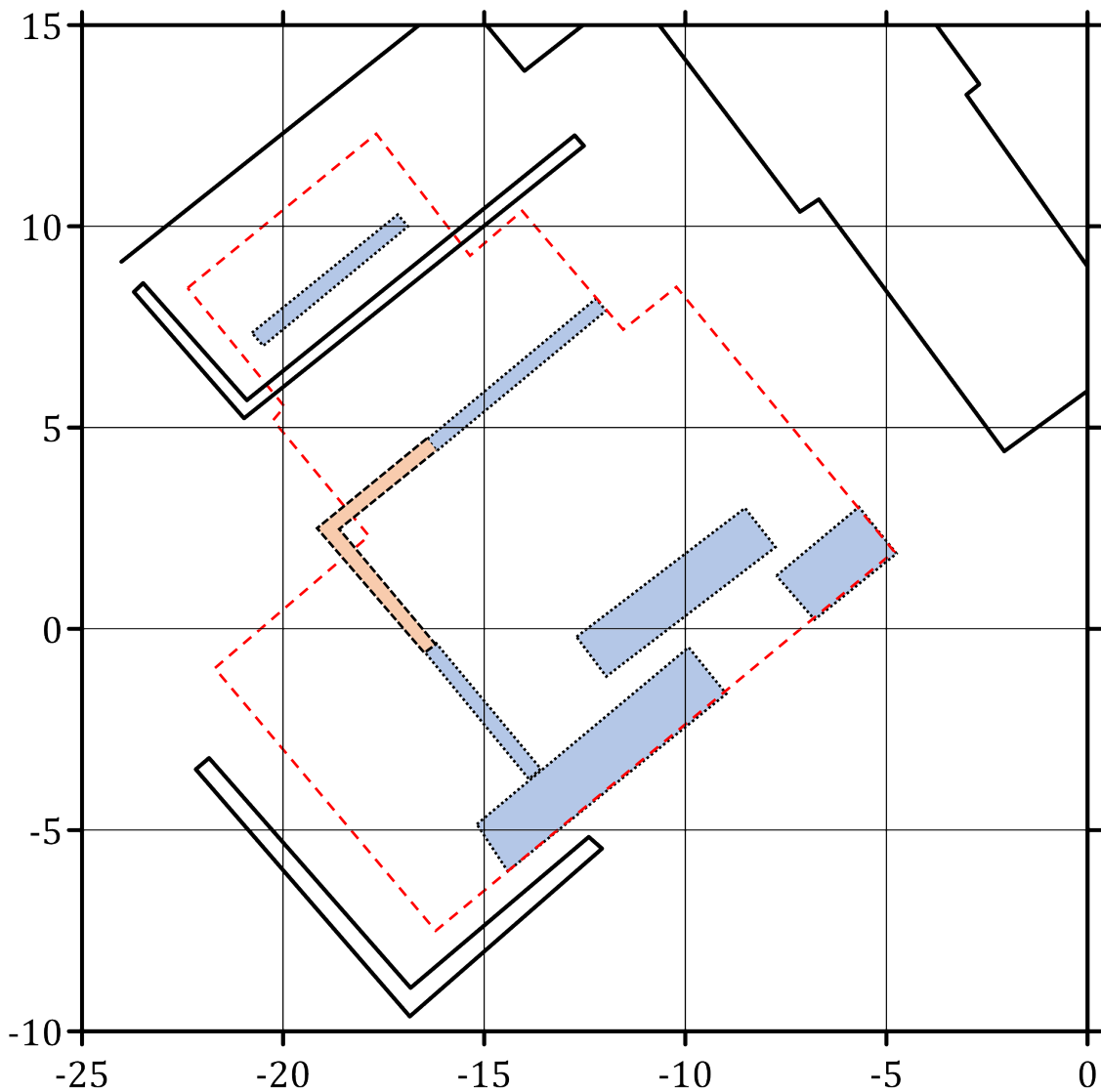


Depth: 0.9m

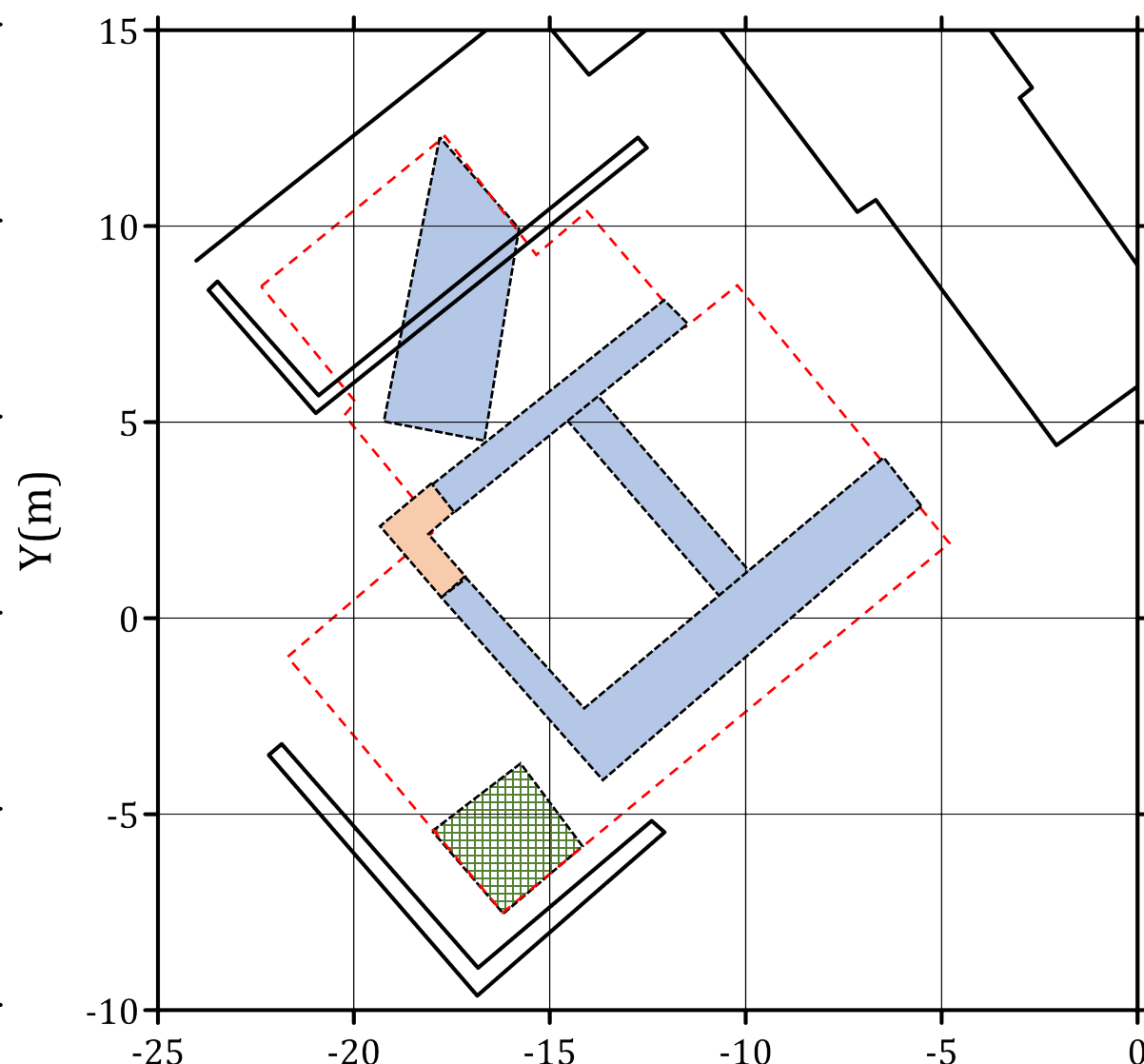


Dark colours indicate reflection of GPR signal

Depth: 0.2 – 0.5m



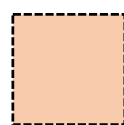
Depth: 0.5 – 0.9m



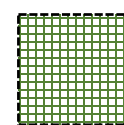
Survey area



Significant reflection

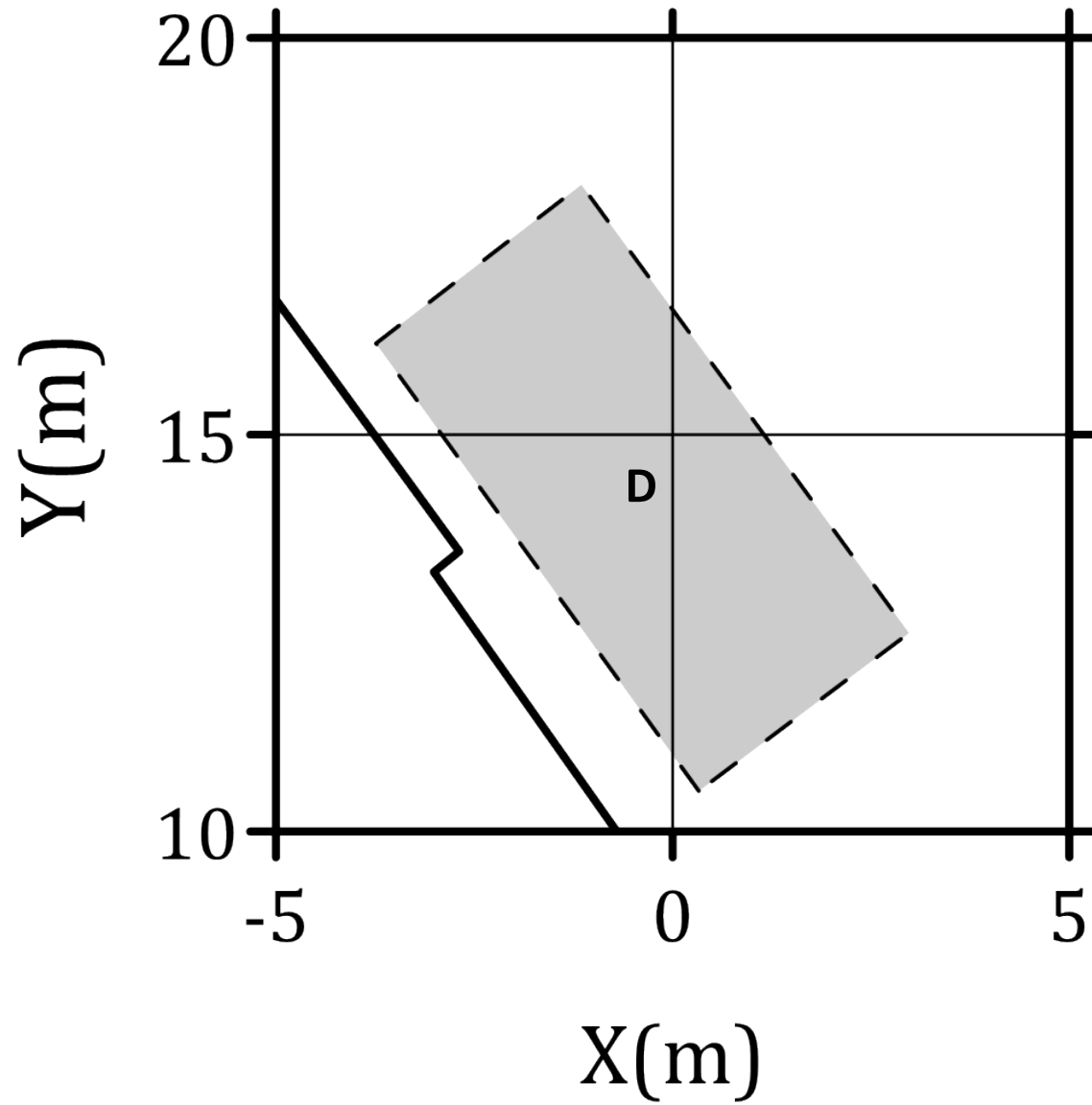


Speculation

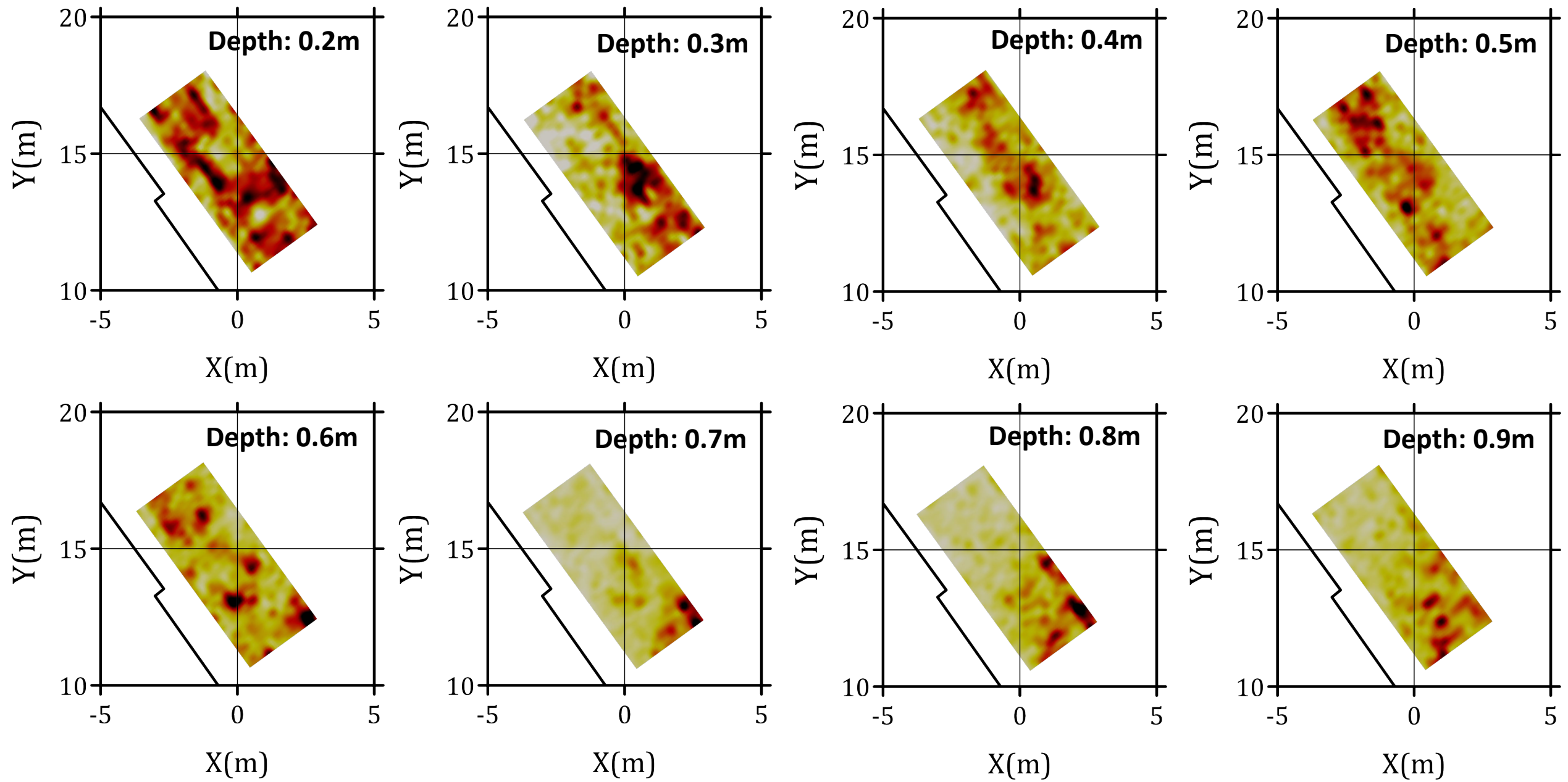


No reflection
(electrically conductive)

GPR results for
plot D



No significant linear features seen in plot D except perhaps at 0.2m



Next steps

Need to look at features identified and see if they are consistent with previous trench observations and exposed features.

All of the features in plots A,B & C appear to be parallel or orthogonal, except for the approximately north-south anomaly seen at intermediate depths in plots A and B. Is this a more contemporary feature?

It is not clear what the cause of the attenuated patch in the south of plot C (i.e. near the outer wall). It looks too angular to be natural. What could be the cause? It appears to be of high electrical conductivity, e.g. saline or fine textured material.