






electrode array at Melksham Town Bridge

TerraDat has developed geophysical survey techniques (resistivity tomography & seismic refraction) specifically for river and stream crossing investigations.

Specific applications where these surveys are routinely applied include:

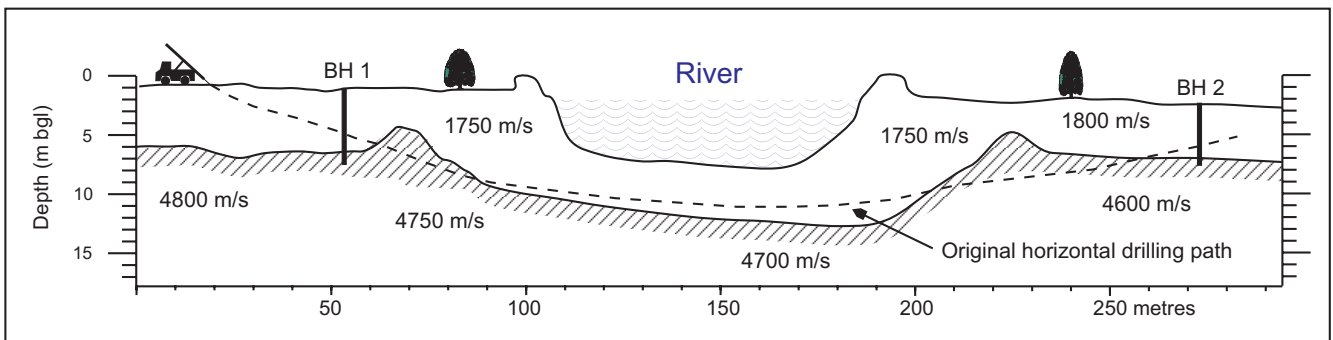
-  Profiling bedrock for geotechnical studies
-  Identifying hazards for horizontal drilling
-  Examining the foundations of old bridges

The geophysical contrast between targets such as localised rises in bedrock, lenses of coarse cobbles / gravel or infilled alluvial channels can be mapped very rapidly with no disturbance to the surface.

A river crossing can take between half a day and two days to carry out depending on logistics. The results are presented as scale geological sections and can overcome limitations often encountered in conventional ground investigations such as interpolation between boreholes on the river banks and false impressions of bedrock when large boulders are encountered.



Non-destructive methods
Rapid surveys acquisition
Unaffected by water levels & soft ground



(ABOVE) A seismic refraction survey was carried out to provide rockhead information prior to a horizontal drilling program. By combining the standard land based survey with a static streamer approach, full refraction profile was obtained across a number of river crossings.

