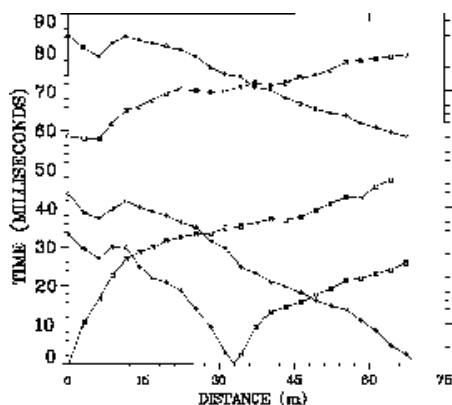


## Application Note

# Seismic Refraction



This is an example of a travel time plot

Seismic refraction is used by SSI for Geotechnical studies, mineral exploration and groundwater exploration.

SSI have used Seismic refraction to

1. Map Overburden thickness on rock
2. Map structures beneath bridge foundations
3. Map Mineral deposits
4. Define structures within volcanic deposits

Seismic energy is provided by a source ('shot') located on the surface. Energy radiates out from the shot point, either travelling directly through the upper layer (direct arrivals), or travelling down to and then laterally along higher velocity layers (refracted arrivals) before returning to the surface. This energy is detected on surface using a linear array of geophones.

CLEAR SUBSURFACE IMAGES



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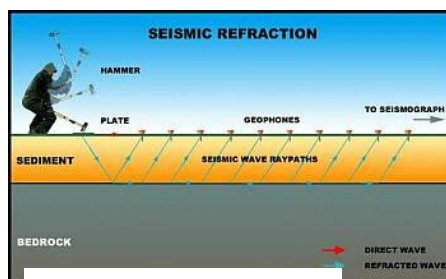
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Data collection



Spread layout