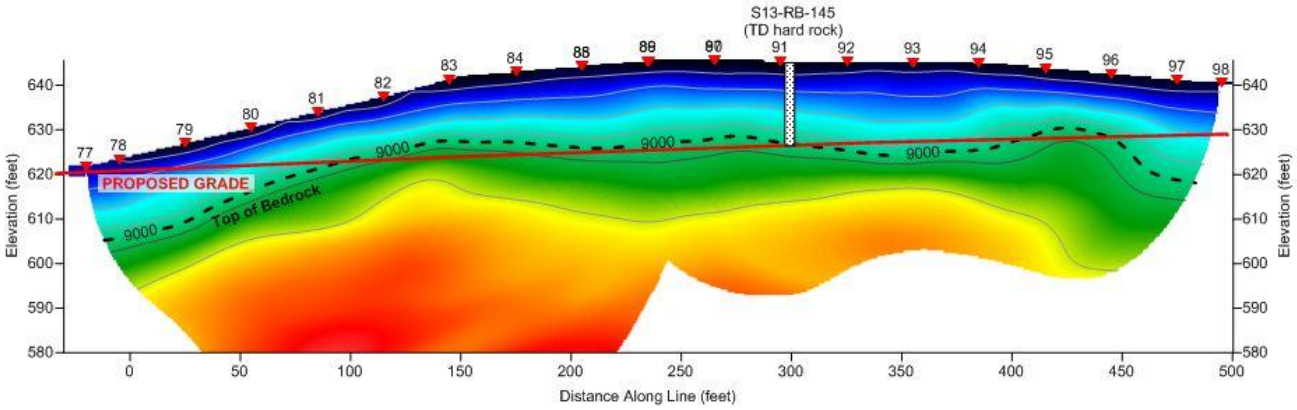
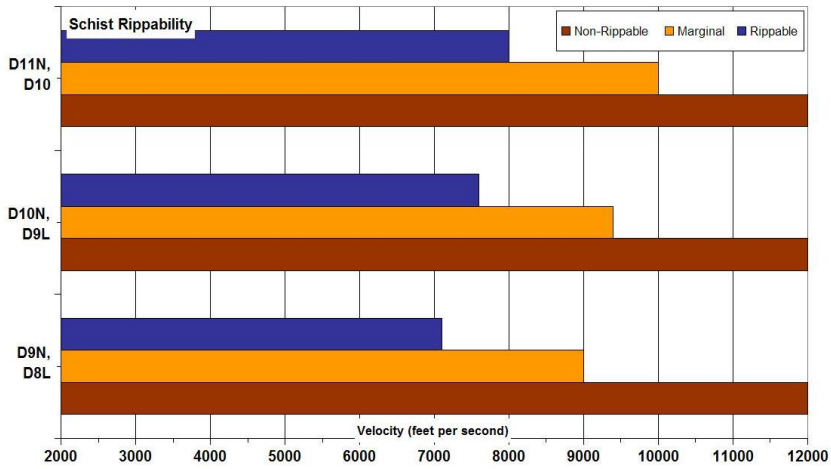
Geophysical Application

Bedrock Depth & Rippability

Determining the depth, variability and rippability of bedrock is a common geotechnical objective. With the application of seismic refraction, uncertainty can be minimized, and rippability information developed.



Collection, management and presentation of refraction data is addressed in ASTM D-5777. Seismic Refraction is among the oldest and most widely applied geophysical methods. Lightweight portable equipment permit seismic refraction surveys to be performed over the most rugged terrains. Topographic variations along a survey line are integrated into the analysis of seismic data for a comprehensive evaluation of subsurface conditions.



Rippability is related to seismic velocity derived from seismic surveys. This relationship can be used to classify site bedrock for bidding purposes. The best reference for bedrock rippability has traditionally been the Handbook of Ripping prepared by Caterpillar. Now in its 12th edition, an electronic copy is available from Quality Geophysics with the consent of Caterpillar. This handy reference document shows rippability based on the size of the equipment being used. Since all bedrock is not alike, Caterpillar has recognized rippability by rock type, and classified rippability as rippable, marginally rippable and non-rippable.