Challenges on Subsurface Characterization of Peat Soil Using Seismic Refraction

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This paper is briefed about difficulty in seismic refraction during data acquisition on peat soils. Seismic refraction is commonly used for subsurface characterization. This method can determine the subsoil profile by differentiate its soil velocity. Peat is known with high compressibility and more 75% of organic content that give challenges is seismic refraction. Challenges of seismic refraction such as attenuation of seismic wave, poor signal to noise ratio (S/N) and seismic source energy explained in this paper. The raw data of seismic wave taken from seismograph for takeout spacing of 1 meter, 3 meter and 5 meter are shown in results and discussion for comparison of seismic data quality.

P , attenuation, signal to noise ratio (S/N), seismic refraction