

Near surface exploration at mud volcano area in Matsudai, Tokamachi City, Niigata Japan - GPR and seismic method -

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Abstract: For the purpose to survey the shallow subsurface structure of Matudai mud volcano area, Tokamachi, Niigata, Japan, a GPR survey was carried out. As the result of the survey, clear reflection image down to the depth around 1m can be imaged. The characteristics of EM wave reflection observed in the eastern and western part of the survey area are different with each others. Interpreting the result with considering the geological information; a relatively strong and continuous reflection events observed in the eastern part can be considered as a reflection from a east-rising bedrock, and a weaker reflection from mud volcano ejecta.

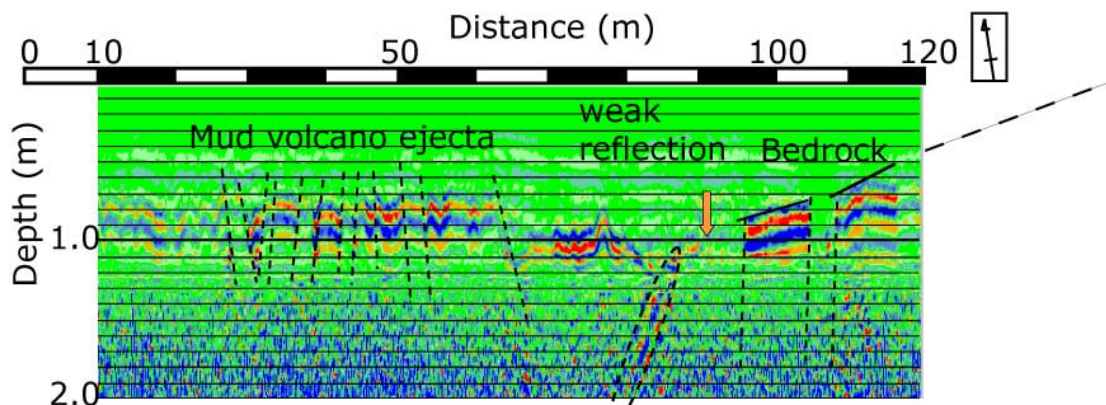


Fig.1 GPR survey result along East-West survey line
 Strong and continuous reflection is observed in East most end of the profile.
 Reflection signals from the western part are weaker and discontinuous.
 They can be interpreted as deformed mud volcano ejecta.