



[www.oljan.fo](http://www.oljan.fo)

Jan Müller

27 - 05 - 2012

## **Faroese trying to solve the basalt problem**

Mr Uni Kárason Petersen at Jarðfeingi has together with Mr Robert James Brown and Mr Morten Sparre Andersen from the Natural Science department, written an article, which has just been published in the Geophysical Prospecting magazine. The Geophysical Prospecting magazine is an internationally recognised scientific magazine dedicated to the study of survey techniques relating to the magnetic field, electromagnetism and seismic. The magazine is read in almost 4500 laboratories and has 8000 subscribers. The name of the article is; P-wave velocity distribution in basalt flows of the Enni Formation in the Faroe Islands from refraction seismic analysis. The article debates the work related to the resolving of the so-called basalt problem. One of the major problems facing the exploration of the Faroes area is that seismic surveys are experiencing great difficulty in portraying the various geographical layers under the basalt, which to a large extent covers almost all of the Faroe plateau. Today it is thought that the single most important factor for achieving a good picture of what lies beneath the basalt is a detailed knowledge of how fast seismic waves travel through basalt. The work completed by Mr Petersen and the others, shows that it is not possible to deal with basalt as a common or unified entity, but instead to differentiate between various basalt clusters or layering, which may retain substantially different properties. In the article it is investigated to what extent the knowledge on basalt can be obtained through short-wave frequency surveys. The results given in the article are an incitement to conducting out several more similar surveys of the Faroes area, in order to obtain a detailed knowledge of the various basalt properties. The end result of such surveys would be the improved understanding of seismic field data and an improved picture of what geological layering is present beneath the