University of Massachusetts Amherst Department of Geosciences, 611 North Pleasant Street Massachusetts



Reykjavík 1. júlí 2015 UST201506-232/S.P. 09.05.01

Subject: Permit to collect volcanic rock samples in Snæfellsjökull National Park and Fjallabak Nature Reserve (Torfajökull)

The Environment Agency of Iceland has received a request from the University of Massachusetts Amherst, dated 26th of June, 2015, regarding a permit to collect volcanic rocks samples in Snæfellsjökull National Park and Fjallabak Nature Reserve (Torfajökull).

Description of the project:

The project plans to collect volcanic rock samples from a variety of eruptive events in Iceland in order to study to water and carbon dioxide concentrations within inclusions in the samples. The project aims to have implications for better understanding volcanic hazards based on volatile concentrations. Praticipants on location consists of two. Approximately five fist-sized hand samples will be collected at each location, using a rock hammer if needed.

Snæfellsjökull National Park was established on June 28, 2011, with the aim of protecting the area's unique nature and important historical relics.

The research permit is hereby granted in Snæfellsjökull National Park and is subjected to the following conditions:

- This permission is granted for the period 8 st to 10 th of July 2015.
- The Environment Agency requests that the researcher will contact the ranger working in the area with at least one day notice before the field works begins and inform the ranger on his intentions. (Please contact Guðbjörg Gunnarsdóttir, +354 8224025)
- Keep the signed permit letter with you during your research.
- Collect volcanic rock samples that are lying around in the area, do not use a rock hammer to get samples unless it is necessary and if so do it in consultion with the ranger Guðbjörg Gunnarsdóttir.
- Inform the Environment Agency of Iceland of the exact location where samples are taken from.
- Sample quantity is restricted to maximum five fist-size hand samples.
- This permit is only valid for research purposes. It does not include permit to utilize the samples for commercial purposes. The samples cannot be signed over to third party for the purpose of commercial use.
- Every measure should be taken to avoid damage to the sites and unnecessary disturbances.
- The Environmental Agency of Iceland wishes to be secured, free of charge, a copy of all reports and scientific articles that result from the research project.
- Off road driving is prohibited in all circumstances.

According to he Act on the Icelandic Institute of Natural History and Nature Research Centers No. 60/1992 the export of natural history specimens is prohibited except with the permission of the Icelandic Institute of Natural History. If you wish to transport the samples from Iceland you will need a permission from the Icelandic Institute of Natural History (www.ni.is, e-mail: ni@ni.is)

Fjallabak is a nature reserve. Disturbance to geological formations, vegetation and wild animal life in the protected area is prohibied without permission from The Environment Agency of Iceland. That also includes sampling for scientific research. It is also prohibited to bury or leave waste in the reserve.

The research permit is hereby granted in Fjallabak Nature Reserve (Torfajökull) and is subjected to the following conditions:

- This permission is granted for the period 20 st to 22 th of July 2015.
- The Environment Agency requests that the researcher will contact the ranger working in the area with at least on day notice before field work begins and inform the ranger on his intentions. (Please contact Jón Björnsson, +354 8224056)
- Keep the signed permit letter with you during your research.
- Inform the Environment Agency of Iceland of the exact location where samples are taken from.
- Collect volcanic rock samples that are lying around in the area, do not use a rock hammer to get samples unless it is necessary, and if so do it in consultion with the ranger Jón Björnsson.
- Sample quantity is restricted to maximum five fist-size hand samples.
- This permit is only valid for research purposes. It does not include permit to utilize the samples for commercial purposes. The samples cannot be signed over to third party for the purpose of commercial use.
- Every measure should be taken to avoid damage to the sites and unnecessary disturbances.
- The Environmental Agency of Iceland wishes to be secured, free of charge, a copy of all reports and scientific articles that result from the research project.
- Off road driving is prohibited in all circumstances.
- According to he Act on the Icelandic Institute of Natural History and Nature Research Centers No. 60/1992 the export of natural history specimens is prohibited except with the permission of the Icelandic Institute of Natural History. If you wish to transport the samples from Iceland you will need a permission from the Icelandic Institute of Natural History (www.ni.is, e-mail: ni@ni.is)
- The Environmental Agency charges a fee of 11.900 per hour for supervision of the research on Torfajökull since it is out of way for the ranger. The site in question will be evaluated before and after the research and EA's advisor will be available for guidance.

Yours sincerely,

Kristín Linda Árnadóttir

Forstjóri

Svava Pétursdóttir Sérfræðingur

Svara Peturadottir