

Project information

Keywords

Radioactivity, NORM, Metals, Risk assessment

Project title

Mineral Extraction in the High North – Radiological Risks, Impacts and Mitigation (MINEXRIM)

Year

2015-2016

Project leader

Louise Kiel Jensen

Participants

NRPA:

Øyvind Aas-Hansen

Mark Dowdall

NIVA:

Knut Erik Tollefsen

Steven Brooks

Karina Petersen

NMBU

Lindis Skipperud

Frøydis Meen Wærsted

Lene Valle

Flagship

MIKON

Summary of Results

The first year have been allocated to review and gathering of existent knowledge regarding naturally occurring radioactive material (NORM) and metals at north Norwegian mining sites. This information is available on request to project leader as a short written text and an excel file. Based on the gathered information, fieldwork sites covering 3 terrestrial and 1 marine area was chosen. The fieldwork sampling abiotic and biotic samples was conducted in August/September 2015. Samples are awaiting analyses.

For the Management

As the responsible national authority on radioactive contamination, it is essential for NRPA to have a good overview of sites with elevated levels of radioactivity. This project have assessed sites that may contain a mixture of NORM and metals. In addition, a risk assessment tool for such sites is under development.

Published Results/Planned Publications

Due to the duration of the project, no results have been published so far. A poster on the project have been accepted for the Arctic Frontiers Conference 2016.

Communicated Results

The findings and development are continuously communicated to the relevant section at NRPA.

Budget in accordance to results

The project is proposed as a two year project. This first year have been allocated to gather basic information for experiments and development of an effects database. Results from the project, both as tool for management and scientific publication, are anticipated during year two.

Could results from the project be subject for any commercial utilization

No

Conclusions

In Minexrim we have largely accomplished the proposed work for year 1 by the end of the year. We now have a better overview of mining sites which may contain NORM and metals in combination, and have collected field samples from 4 sites to quantify the concentrations of contaminants.