



Miljöteknisk markundersökning på misstänkt förorenad grustäkt i Ytterhogdal

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Environmental survey on suspected contaminated gravel pit in Ytterhogdal

Abstract

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Polluted areas are a problem in all of Sweden and it is poorly known how some of these areas can affect the environment and the health of humans. In this study a bigger gravel pit in Ytterhogdal area in Jämtland, Sweden, that previously has been inventoried on its environmental history is investigated regarding suspected ground pollutions. Historically the on-site activities consisted of fuel handling, excavation and crushing of gravel, installation of asphalt plants and storage of material. The soil is composed of glacial river material and the conditions for spreading of the pollutions in the ground is considered high.

This study was conducted in June 2016. Expected pollutants were; petroleum, PAH, metals and BTEX. A total of 18 test pits were excavated for the sampling of soil and one sample was taken directly on the surface. Continuous measurement of pore gas (volatile hydrocarbons) were made with PID instruments (MiniRAE Lite) and continuous measurements of metals with a XRF-instrument was made to help choose 12 soil samples and one asphalt sample to be sent for analysis to an accredited laboratory.

No samples from the chemical analysis exceeded the current land use guidelines which means that there has not been found any significant pollutants in the area. The asphalt test secured that the asphalt does not contain coal tar. Based on the analyzed results in all soiltests the assessment was made that there is little to no risk with respect in human health or the environment and no further evaluation or action is deemed necessary. However, it does not conclude for certain if pollutions have never been present in the gravel pit. If so, they have likely been diluted from the site and there is a risk that the nearby waters has been contaminated at some stage.

Key words: Petroleum, PAH, metals.