

ISU, UI, UNI announce results of groundwater analysis at ash disposal site

February 21 2011

The results of voluntary groundwater testing beneath a quarry where the University of Iowa, Iowa State University and the University of Northern Iowa deposit coal and biomass ash have shown levels of the sampled constituents all well below state and federal standards.

Levels for many constituents were so low that laboratory equipment had difficulty detecting anything but trace and statistically insignificant amounts.

In 2003, the universities received a permit from the Iowa Department of Natural Resources (DNR) to begin depositing the ash as fill in the Basics Materials Corp. limestone quarry south of Waterloo. The ash is a combustion byproduct of [power plants](#) that help cool, heat and generate electricity at the three universities.

Current state and federal law does not mandate the monitoring of [groundwater](#) at the quarry.

However, the UI, ISU and UNI teamed together to begin testing last year to establish a baseline should new governmental rules be established in the future, and to address concerns about ash disposal and potential risks to groundwater beneath the quarry.

Barker Lemar Engineering Consultants of West Des Moines conducted the statistical analyses of the samples taken from five wells every month from February 2010 through January 2011. The samples were tested for

23 constituents, mostly metals. These constituents occur naturally in soil and groundwater, but are also present in coal ash. The monitoring program is designed to determine whether the ash used for quarry reclamation is impacting the levels of metals in groundwater in this area.

In a summary of its findings, Barker Lemar reported that no groundwater protection standards, or GWPS, were exceeded at a statistically significant level during the one-year analysis. In some cases, the report noted, concentrations of some metals were consistently below detection and reporting limits.

The three universities said they plan to share the findings with the Iowa DNR, and to use the data as a baseline for ongoing, voluntary monitoring of the quarry. Meanwhile, they said they would continue to follow and adhere to any changes in regulations governing ash disposal by the Iowa DNR and U.S. Environmental Protection Agency.

More information: To view a copy of the full report, click [here](#).

Provided by Iowa State University

Citation: ISU, UI, UNI announce results of groundwater analysis at ash disposal site (2011, February 21) retrieved 27 April 2024 from <https://phys.org/news/2011-02-isu-ui-uni-results-groundwater.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.