PROGRESS REPORT

August 1st, 2006 – December 31st, 2006

PROJECT TITLE: The feasibility of removing inorganic arsenic from landfill leachate via sorption to mineral oxide surfaces.

PRINCIPAL INVESTIGATOR(S): Dr. Maya Trotz

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COMPLETION DATE: 1/23/07 PHONE NUMBER: 813-974-3172

Work accomplished during this reporting period:

1. Batch adsorption experiments have continued. Some experiments with Kemiron and various loadings of arsenic as a function of pH and ionic strength were repeated to verify the reverse ionic strength effect observed in previous experiments. These new experiments did not show a reversed ionic strength effect.
2. Kinetic data was collected on experiments using As(III) and (V) on Kemiron.
3. Method development for Se, Cd and Ni analysis using a VARIAN DUO AA was done and any interferences for systems containing As and one of these co-contaminants checked.
4. Batch adsorption experiments of Se and Cd as a function of pH and ionic strength on Kemiron are 50% complete.

Information Dissemination Activities: Project information has been updated on landfillinfo.net. A poster presentation was given by Douglas Oti on 11/22/06. Title of poster: Arsenic removal using Kemoxide, a commercially available iron oxide sorbent. Poster presentation made by Douglas Oti at the 2006 Florida AWMA conference in Atlantic Beach, Florida. http://www.flawma.com/.

TAG meetings: There were no TAG meetings during this time period.