

EVALUATION OF NEW MATERIALS FOR PASSIVE MINE WATER TREATMENT IN THE COEUR D'ALENE RIVER BASIN¹

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Abstract. The U.S. Environmental Protection Agency's (EPA) Mine Waste Technology Program (MWTP) is conducting a project focused on the evaluation of new materials for potential use in passive treatment of contaminated mine waters in the Coeur d'Alene River Basin in Idaho. Most contaminated mine waters in the basin have neutral or slightly acidic pH, with zinc, cadmium, and lead being the primary problem metals. This project utilized two feed waters, representing high and low hardness-to-zinc ratios. Bench scale tests were performed evaluating the capacity and effectiveness of a number of new materials, including Bauxsol®, ferrihydrite, granular ferric hydroxide, juniper bark, and several others. This paper will present the results of testing along with recommendations for future work.

This research was funded under Interagency Agreement No. DW899388-70-01-1 between EPA and the U.S. Department of Energy (DOE) and was conducted by MSE Technology Applications, Inc., through the Savannah River Operations Office (DOE Contract No. DE-AC09-96EW96405) at the Western Environmental Technology Office located in Butte, Montana.

Additional Key Words: Canyon Creek, zinc

¹ Paper was presented at the 2006 Billings Land Reclamation Symposium, June 4-8, 2006, Billings MT and jointly published by BLRS and ASMR, R.I. Barnhisel (ed.) 3134 Montavesta Rd., Lexington, KY 40502.

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