



Case history: Tailings Dam Reclamation Plan and Improvements, Hot Springs, Arkansas

T.E. Gieck¹, C.O. Sealy², J.D. Nelson³, D.B. Durkee⁴, and D.D. Overton⁵

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ABSTRACT

U.S. Vanadium Corporation, a subsidiary of Strategic Minerals Corporation currently operates a vanadium processing facility near Hot Springs, Arkansas. U.S. Vanadium purchased the mill operations from Union Carbide in the mid 1980's and Umetco Minerals Corp., a subsidiary of Union Carbide retained responsibility for reclamation and closure of the tailings impoundment.

This paper presents an overview of the design and construction of initial reclamation and improvements for the Hot Springs Tailings Impoundment. The design objectives were to develop a plan that would meet initial reclamation requirements, enhance the stability of the dam, and increase the capacity of the impoundment. The results of hydrologic analyses, seepage analyses, and stability analyses are presented. Design and construction details for tailings management, water management, and erosion control are discussed. Design changes made during the construction phase are also discussed.

¹ Umetco Minerals Corporation, Grand Junction, Colorado

² Umetco Minerals Corporation, Grand Junction, Colorado.

³ Colorado State University, Fort Collins, Colorado

⁴ Shepherd Miller, Inc., Fort Collins, Colorado

⁵ Shepherd Miller, Inc., Fort Collins, Colorado