



■ Slope Stabilization

Reference Details:

Client and

Operator United States Environmental Protection Agency (EPA), Washington D.C., USA +++ **General**

Contractor CH2MHill, Redding, CA, USA +++

Contractor Stimple-Wiebelhaus Associates, Redding, CA, USA +++

Subcontractor Malcolm Drilling Co.Inc., Kent, WA, USA

DSI Services Supply of 201 DYWIDAG Permanent Strand Anchors, 24-0.6" strands, length up to 64 m; Supply of 6,800 kN stressing equipment.



64 m long DYWIDAG Permanent Strand Anchors secure Retention Reservoir

Slope stabilization at the Slickrock Creek Retention Reservoir (SCRR), Redding, California, USA

The Iron Mountain Mine site is a federal EPA (United States Environmental Protection Agency) superfund site because of years of on-site mine tailings disposal. Part of the EPA's remediation project included a dam that would capture and treat contaminated runoff before it could make its way to the surrounding lakes and the Sacramento River. Upon excavation for the dam abutments, a major slow-moving landslide was detected on the right abutment. Stimple-Wiebelhaus Associates and CH2MHill solicited bids for a design-build solution to stop the slide. Malcolm Drilling's solution was 201 twenty-four-strand DYWIDAG Permanent Anchors on three benches supplied by DYWIDAG-Systems International. Lengths of the anchors were up to 64 m with an average anchor length of 39.32 m. Because of the corrosive nature of the contaminated runoff, anchors and anchor hardware had to be thoroughly corrosion protected. Drilling access was difficult because of long, narrow benches. The work had to be coordinated in such a way as to continue drilling operations without blocking grout and water supply or material delivery on the narrow benches. The competent bedrock at the site had a highly variable profile: therefore, communication between the contractor and the anchor supplier regarding the actual drilling conditions and required anchor lengths was essential. DSI's ability to quickly respond to the projects requirements proved to be a key factor in the successful completion of this project in December 2002.