



OVERVIEW: Amoco/BP Petroleum Energy Dissipation

Attempts with rock riprap to stabilize and dissipate energy at the bottom of a 30' drainage, "let-down" structure for Amoco (currently BP/Amoco) proved futile. Thousands of dollars had been invested into this project over the years with nothing proven to be effective. In 1998 Patrick Engineering decided to take a more proactive "engineered" solution to this difficult application. Utilizing approximately 100 24" A-Jacks concrete armor units, the solution proved to be both inexpensive and stable. When 100 24" A-Jacks are interlocked against one another this forms a matrix weighing in excess of 7,800 pounds of interlocking erosion protection and energy dissipation. The A-Jacks were installed for less than \$3,000 and wrapped with a polyester cable for additional stability to keep the individual units from dislodging from the matrix. As water tumbles down the concrete steps the A-Jacks break-up the energy from the stepped concrete structures before cascading into a Northern Illinois stream.



PRODUCT: 24" A-Jacks

AMOUNT: 100 Units

DATE: Summer 1998

OWNER: BP/Amoco
Joliet, IL

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DATE: January 2004

