



Development for the Optional Use of Circular Core Tubes with the High-Shear Stress Flume

Description

Sandia National Laboratories has developed, tested, and validated the use of 10cm diameter circular cores in erosion tests using the High-Shear Stress Flume.

Purpose

The optional use in the field of circular cores greatly alleviates some of the operational difficulties in retrieving *in situ* samples. Sample recovery and core length increases and the coring device is much easier to push into coarse-grained or dense sediments. In addition, there are many devices and methods that have proven to be successful in retrieving core samples using circular coring tubes. This creates the opportunity to use and interchange parts that are already available rather than having to use new coring designs for each specific project. Finally, circular cores create a much better seal with the coarser material for the plunger that is used to raise the sediments into the flume test section.

This development has been applied for projects on the Pecos River, NM and Kivalina Bay, AK.

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Contact

Jesse Roberts
Carlsbad Programs Group
4100 National Parks Highway
Carlsbad, NM 88220
Phone: (505) 284-2710
Fax: (505) 234-0061
Email: jdrober@sandia.gov

