



Recommended Core Handling/Preservation Field Procedures

Introduction

Following are recommended field procedures for handling, preserving and shipping unconsolidated cores obtained from shallow borings. Coring methods are beyond the scope of these procedures, as every site will have its own unique problems and those are best addressed by the consultant and coring companies involved.

The goal of any coring operation is to obtain representative, *undisturbed* samples. If the core is being submitted to a laboratory for petrophysical analysis, it is recommended that the laboratory be contacted in advance to discuss the test program and required core size. Often, a compromise must be met between what the laboratory requires and what is practical in the field. Generally a 2" diameter by 6" long sleeve is suitable for most basic tests; horizontal and vertical permeability, TOC, density, grain size, porosity and pore fluid saturations. If larger diameter/continuous coring equipment is available, then a more detailed lithological and petrophysical data profile can be generated.

Procedure

1. Remove sample from core sampler as soon as possible.
 - a. If core is in sleeves, fill any void space with saran wrap to minimize core movement, then seal with Teflon film and tape on plastic end caps.
 - b. If core is not in sleeves, slide gently from sampler on to split PVC core supports - contact PTS for details. Wrap with Saran and secure with clear box tape.
2. Label each core section with top and bottom depths. Fractions of a foot should be recorded in tenths. Additionally, label multiple sleeves sequentially with A, B, C... etc starting with A on the top (shallowest) sleeve.
3. Immediately place cores in a cooler containing dry ice and freeze to minimize migration of core fluids (alternative: pack core into an ice chest with frozen "Blue Ice" and foam packing/cushioning material).
4. Ship cores at the end of each day by overnight courier (FedEx or AirBorne Express, etc.) to PTS Laboratories. Contact PTS for labeling requirements.

Applicable ASTM Standards

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| D3550-84: | Ring Lined Barrel Sampling of Soils; split spoon or one-piece sampling barrel. |
| D1587-83: | Thin-Walled Tube Sampling of Soils; Pitcher/Shelby tubes. |
| D4220-89: | Preserving and Transporting Soil Samples; basic, does not address contaminated samples. |