

FIELD DENSITY OF CEMENT TREATED MIXTURES BY SAND CONE METHOD OR BY RUBBER BALLOON METHOD

Scope

1. These methods are used to determine the in-place density of cement treated mixtures by determining the weight and moisture content of material removed from a test hole and subsequent measure of the test hole volume by either the Rubber Balloon Method (ARIZ 231) or the Sand Cone Method (ARIZ 230). Tests ARIZ 230 or 231 should be followed except for the differences outlined under **Procedures** below.

Procedures

1. Determine the time elapsed between the incorporation of cement and water to the mixture and the

completion of compaction. This information is needed to refer to the proper Rock Correction Delayed Curing line (ARIZ 222).

2. If the rock content is greater than 50% (or 60% in the case of materials which are to consist of 100% passing the 1-inch sieve) report the sieve analysis with a note stating that the density is not determinable due to excess rock.

3. If any rock is retained on the 3-inch sieve, verify this with a sieve analysis and call this the end point. This sieve analysis shall be reported with a note stating that the density is not determinable due to the presence of rock retained on the 3-inch sieve.

