

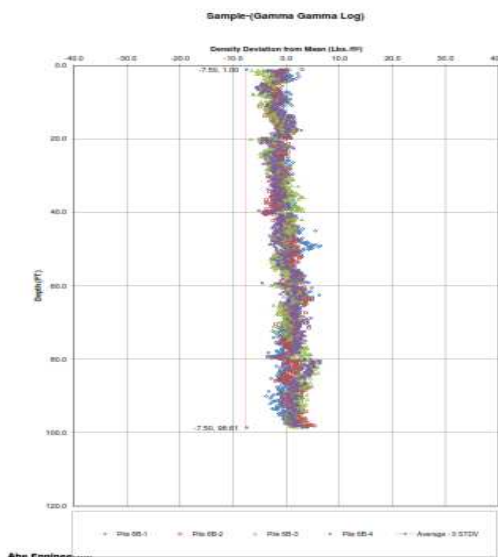


Gamma-Gamma Logging

ACS offers Gamma-Gamma logging services and has over 20 years of experience with the method. Our company has performed GGL testing on some of the largest projects in California, from the High-Speed Rail, to the Bay Bridge in San Francisco, to the metro in Los Angeles.

What is Gamma-Gamma Logging?

Gamma-Gamma logging (GGL) is a non-destructive test performed on drilled piles and concrete walls that uses a nuclear density probe to create a log of average concrete density vs. pile depth. Deviations in average density are used to identify pile anomalies or defects and to assess pile/concrete quality.



Sample plot for typical GGL Report

ACS, Inc. certified to perform GGL according to the California Test 233. This standard is the most recognized specification for GGL testing throughout the state of California and beyond.

Why use Gamma-Gamma Logging?

GGL is a time-tested method of ensuring quality concrete foundations, and organizations such as CalTrans use it as their primary testing method for drilled shafts. The time required for testing is similar to that of Cross-hole Sonic logging, but unlike CSL, GGL also gives information regarding the concrete on the exterior of the pile cage. Another benefit over CSL and similar sonic testing methods such as pulse-echo testing, is that GGL can be performed as soon as 24 hours after the pile is poured. Sonic testing methods require a wait time of multiple days before testing can occur.

GGL can be performed for a number of different foundation types and concrete structures, including CIDH piles, auger-cast, Barrette piles and more.

Procedure

GGL testing requires the installation of PVC tubes on the interior of the rebar cage as described in CalTrans CT-233. As an electric winch pulls a 4-foot probe up through the tubes, the probe records average concrete densities at 0.1 ft intervals. The density data is plotted and analyzed, and deviations of sufficient magnitude from the average concrete density are considered to be anomalies. For GGL testing, reports are usually generated with 24-48 hours to help prevent delays in a customer's project. Whatever the testing needs, ACS is dedicated to quality customer service and satisfaction.