

Please click here for the full version of this document – redistribution is subject to ASCE license or copyright. <http://www.ascelibrary.org/>

Improving Geotechnical Laboratory Performance with Technology

Gary T. Torosian¹, W. Allen Marr, P.E.²

¹ Director of Testing Services, GeoTesting Express, 1145 Massachusetts Avenue, Boxborough, MA 01719; PH 978-635-0424; FAX 978-635-0266; email: gtt@geotesting.com

² Chief Engineer, GeoTesting Express, 1145 Massachusetts Avenue, Boxborough, MA 01719; PH 978-635-0424; FAX 978-635-0266; email: wam@geotesting.com

Abstract

Geotechnical laboratories have traditionally tracked laboratory samples with hand-written labeling systems and recorded test data in hand-written records. These records are then used to produce hand-written reports or manually entered into data reporting software to generate reports. This approach consumes a lot of man-time and presents many opportunities for errors. GeoTesting Express has developed and implemented a new process for sample tracking, data management and test reporting to improve the laboratory's performance. Central to the process improvement is the design and implementation of a new Laboratory Information Management System (LIMS) which allows for sample tracking and status updates while also eliminating hand written data and manual data entry for production of reports. This paper shows how the implementation of this new LIMS has benefited our laboratory by decreasing turnaround time, decreasing production costs and reducing errors.