Soil Testing & Research Laboratory

DBS&A's nationally recognized Soil Testing & Research Laboratory is certified to determine the geotechnical, saturated, and unsaturated properties of soils and geologic materials.

For 30 years, the DBS&A Soil Testing & Research Laboratory has been a premier provider of consistent, accurate, and reliable soil properties testing results. A complete schedule of services is located at: www.dbstephens.com/SoilTesting

Our key areas of expertise are:

- Hydrologic Testing
- Geotechnical Testing
- Research and Development
- Sensor Calibration
- Instrumentation/Automation

Soil Properties Testing

The results of our analyses enable clients to better understand site soil conditions such as infiltration rates, seepage, leakage, and contaminant transport. The results are invaluable in optimizing designs for which can prove invaluable in optimizing designs for groundwater remediation, artificial recharge, and facility cover performance.

We provide these testing services to a full range of clients, from individual homeowners to national laboratories.

Instrumentation/ Automation

DBS&A regularly designs, installs, and operates a wide range of automated data collection and monitoring equipment. Our data acquisition and processing services cover all facets of telemetry and remote data collection, including GOES satellite uplinks.

> "The DBS&A soils laboratory staff was outstanding and very accommodating for the rigorous schedule my project demanded."
>
> ~ John Nance, Geologist
> Sundance Consulting, Inc.

DBS&A's soil testing capabilities include procedures established by the American Society of Testing and Materials, American Association of State Highway and Transportation Officials, Methods of Soil Analysis, American Petroleum Institute, American Society of Agronomy, and procedures patented by DBS&A personnel.

> "We consider the data of Daniel B. Stephens & Associates, Inc., to be the most reliable, due to the uniformity of their analysis procedures and the self consistency and completeness of their data set.[1]"

The 9,600-square-foot laboratory's consistently high level of client satisfaction is attributed to the dedication of DBS&A's staff relentlessly striving for accuracy and compliance to achieve the highest standard of quality.

Sensor Calibration

Our laboratory was certified as a sensor calibration laboratory after an independent inspection and assessment on behalf of a U.S. Department of Energy contractor. Our sensor calibration services include heat dissipation sensors, time domain reflectometers, pressure transducers, water content reflectometers, psychrometers, gypsum blocks, and custom instruments.

Research and Development

The DBS&A Soil Testing & Research Laboratory is also the go-to facility for research, development, and implementation of novel technologies and instruments to aid in environmental resource protection and management.

We perform physical and hydraulic properties analyses of soils that are not common to traditional geotechnical testing laboratories, including specific tests that provide input parameters for saturated and unsaturated flow models and to support alternative cover performance evaluations for facilities such as landfills, hazardous waste impoundments, and mine sites.

A key contributor to DBS&A's international reputation for vadose zone expertise is our 30-year history of designing and developing specialized monitoring equipment and programs for unique circumstances in response to specific client problems.

Among our independent research efforts is the development of a simple, cost-saving, and regulatory-approved alternative to standard landfill and hazardous waste covers. DBS&A staff also developed a rapid screening method that is suitable for multiple samples and textures. This method evaluates mineral-rich brine-saturated deposits, which helps mining clients in South America optimize lithium extraction.

The DBS&A Laboratory provides soil testing services globally. DBS&A has been a part of soil testing, site assessment, modeling, permitting, designing, or providing construction oversight for more than 40 evapotranspiration covers throughout the United States and is participating in cover assessment projects in Queensland, New South Wales, and Victoria, Australia.

1 Rogers, D.B. and B.M. Gallaher. 1995. The unsaturated hydraulic characteristics of the Bandelier Tuff. Los Alamos National Laboratory, Los Alamos, New Mexico. LA-12968-MS. September 1995. p. 13.