



ALARES, LLC
“Energy and the Environment”

A Service Disabled Veteran Owned Small Business

Alares To Help Design and Install 1,500 Ft. Geowell

The 94th Army Readiness Command recently completed an energy survey of all facilities within their jurisdiction. The energy survey concluded that the facility at Londonderry, New Hampshire was the highest consumer of fossil fuels. To reduce this energy consumption, the installation of a geothermal system is being considered for the office areas of the facility.

In order to evaluate the geothermal alternative, CDW Consultants subcontracted Alares to help install a 1,500 ft deep standing column geothermal well. Alares will provide well installation and design support services to the U.S. Army Corps of Engineers through the subcontract to CDW Consultants.

The standing column well is an open loop design where groundwater is pumped from the well into the heat pump, where heat is either extracted or added. The water is then pumped back into the same well. Open loop systems using groundwater are usually much more efficient than closed systems because they will be heat exchanging with water always at ground temperature. Closed loop systems, in comparison, have to make do with the inefficient heat-transfer between the water flowing through the tubing and the ground temperature.