7900 E Green Lake Drive N
Suite 302
Seattle, WA 98103
(206) 729-2400
Email: info@altarockenergy.com

News Release

AltaRock Energy Announces Successful Multiple-zone Stimulation of Well at the Newberry Enhanced Geothermal Systems Demonstration

Completion of this industry-first milestone demonstrates AltaRock's ability to increase the energy production from a single well by several orders of magnitude

SEATTLE – January 22, 2013 – AltaRock Energy, today announced that it has created multiple stimulated zones from a single wellbore at the Newberry Enhanced Geothermal System (EGS) Demonstration site. Creating multiple stimulated zones from a single well will dramatically increase the flow and energy output per well for the completed system, which will include soon-to-be drilled production wells. The overall effect will be to lower the cost of geothermal energy production by as much as 50%. This is a major advancement for EGS, and has the potential to move geothermal energy from a niche role to a major player in our energy portfolio.

"Geothermal energy has the smallest environmental footprint of any renewable power source we now have, and is the only renewable energy source that provides 24/7 baseload power," said Susan Petty, president and founder of AltaRock Energy. "The purpose of the Newberry EGS project is to demonstrate AltaRock's new technology designed to lower the cost of EGS, and thus allow economic extraction of heat from the earth in locations where high temperatures can be reached by conventional drilling techniques."

Enhanced Geothermal Systems are geothermal reservoirs created in hot, low permeability rock by injecting cold water at moderate pressure to enhance the permeability of existing fractures. This means an EGS can be sited in areas without naturally occurring hydrothermal resources with surface manifestations such as hot springs and fumaroles. As such, an EGS could theoretically be sited anywhere there is geothermal heat near enough to the surface to be economically recoverable. Studies by MIT, the Department of Energy, the US Geological Survey and Google have concluded that EGS technology would unleash at least 500 Gigawatts of recoverable geothermal energy in the Western U.S. alone —and potentially over 3,000 Gigawatts across the US. EGS has the potential to provide a very significant portion of the country's electric power supply, which is currently 1000 GW.

Until now, a major challenge facing EGS projects has been the cost. Since geothermal wells can cost several million dollars to drill, increasing the generation capacity of each well is critically important for making it more competitive on the open market for electricity because it lowers the cost of the produced power by reducing the number of wells that need to be drilled. Systems with single stimulated zones simply don't yield enough power per well to make the electricity produced cost-competitive. Having the ability to create multiple stimulated zones from a single well increases the amount of power produced by the well, and thus decreases the overall cost of the power produced.

It's About the Diverters

Multiple-zone stimulation is made possible with AltaRock Energy's patented Thermally Degradable Zonal Isolation Materials (TZIM), which are designed to shift/divert stimulation from one zone to another, and then degrade into non-toxic components such as water and CO2 when the stimulation is complete and the well is allowed to reheat. The challenge was identifying materials that persist during stimulation when the well is relatively cool, and then break down quickly into non-damaging components when stimulation has been completed. AltaRock has spent many years researching and testing their TZIM technology to develop a suite of materials for a variety of conditions, and now has patented the technology.

-more-

At Newberry, AltaRock used a TZIM made from a biodegradable non-toxic polymer commonly used for other purposes that was specially prepared and ground to particle sizes specific to the geology encountered in the hot, dry well, which was drilled in 2008. After injected water stimulated the first zone, TZIM was added to the water and partially plugged the first set of stimulated fractures at the wellbore. This reduced flow into the first zone and slowed its growth. Once flow to the first zone was reduced, pressurized water in the wellbore found the next weak point and began the stimulation of a second fracture zone. At Newberry, this process was repeated three times, and then the valve on top the well was closed and the well was allowed to heat up. The hot (400-600° F) rock surrounding the well quickly heated the injected water, causing the TZIMs to degrade. It is important to note that more than three stimulations can be conducted from a single well if the conditions warrant it.

Next Steps
In the spring of 2013, AltaRock will test for permeability, flow rates, and heat capturing properties of the created reservoirs. After that, production wells will be drilled to intersect the reservoirs about 1,500 feet away from the injection well. Once a connection between wells is made, the well system—one injector and at least one producer—will be flow-tested to determine if the system can support a commercial plant. If it is determined that a commercial plant is feasible, a design will be developed, and construction permits submitted to regulators. That will trigger the development of an Environmental Impact Statement by the BLM and a public comment period. It is a long process, but the potential payoff in renewable domestic energy is enormous.

The Newberry Volcano EGS Demonstration is partially supported by the Department of Energy under Award Number DE-EE0002777, with $21.4 million in grant funds from the Department of Energy to AltaRock Energy matched by an additional $22.4 million from the AltaRock-Davenport partnership. The project is also benefitting from the research efforts of faculty and students at the Oregon State University, the University of Utah, Lawrence Berkeley National Laboratory, Texas A&M, and Temple University.

About AltaRock Energy
AltaRock Energy (www.altarockenergy.com) is a renewable energy development company focused on the research and development of Engineered Geothermal Systems (EGS). AltaRock develops and commercializes geothermal technology to produce clean, renewable power. The company has filed patent applications for a portfolio of patents in the EGS area and holds exclusive licenses for related intellectual property. AltaRock's current activities include an EGS project in Oregon, an innovative exploration project in Nevada as well as development of approximately 50,000 acres of land in Washington and Oregon for Weyerhaeuser. Headquartered in Seattle, Wash., AltaRock was founded by Susan Petty, who is also President/Chief Technology Officer.

Further information and updates about the Demonstration can be found at: altarockenergy.com , or on the project's Blog: blog.newberrygeothermal.com/ and on Facebook www.facebook.com/NewberryEGS).

# # #

Media Contact:
David Stowe
The Ardell Group
(619) 925-8191
dave@ardellgroup.com