Pure Energy Minerals Completes Third Successful Lithium Brine Pumping Test at Clayton Valley South Project, Nevada

VANCOUVER, British Columbia, March 06, 2017 (GLOBE NEWSWIRE) -- Pure Energy Minerals Limited (TSX-V:PE) (FRANKFURT:A111EG) (OTCQB:PEMIF) (the “Company” or “Pure Energy”) is pleased to announce that it has completed a constant-rate pumping test at its newest exploration well, CV-7. The test ran continuously for two days and included collection of brine samples along with extensive hydrogeological data on the brine aquifer system. The pumping test was designed and supervised by Pure Energy’s hydrogeological consulting specialists, Montgomery & Associates (“Montgomery”). This successful test of CV-7 provided valuable additional data for Pure Energy’s technical team to advance and refine its understanding of the Clayton Valley South (CVS) lithium resource.

The pumping test was configured using an electric submersible pump and monitoring apparatus in CV-7, and ran at a constant pumping rate of approximately 5 litres per second (80 gallons per minute) for its duration. The hydrogeologists collected approximately 32 separate brine samples (including QA/QC samples) for lithium analysis over the 48-hour pumping period. Monitoring revealed that the extracted brine from CV-7 reached near steady-state elevated fluid conductivity and fluid density, comparable to other brine wells on the CVS Project. This suggests the production of consistent lithium-bearing brine during the entire pumping test. Detailed, depth-specific brine samples have also been collected from the well, and the analytical results are expected by mid-March. The upcoming Preliminary Economic Assessment (PEA) will include a full discussion and interpretation of the data from CV-7.

Patrick Highsmith, Pure Energy Minerals CEO commented, *“Now that the Phase 3 drill program has concluded, it is gratifying to see the data collection finish on a strong note. The pumping test at CV-7 went very smoothly and we expect to test CV-8 very soon. The team has steadily improved in our ability to execute on deep drilling, well construction, sampling, and the all-important hydrogeological test work. We are processing the data from this most recent test, and we shall incorporate the technical parameters, along with the lithium content of the brine from CV-7 into the upcoming resource update.”*

This pumping test was performed in accordance with State of Nevada waivers and permits issued to Pure Energy by the Nevada Division of Water Resources and the Division of Environmental Protection, which allowed for the extraction of brine from the well and subsequent discharge to surface.

Quality Assurance

Patrick Highsmith, Certified Professional Geologist (AIPG CPG # 11702), is a qualified person as defined by NI 43-101, and has supervised the preparation of the scientific and technical information that forms the basis for this news release. Mr. Highsmith is not independent of the Company as he is an officer and director.

Daniel Weber, P.G. (SME Registered Member 4064243) from Montgomery & Associates, who is an “Independent Qualified Person” as such term is defined under NI 43-101 – Standards of Disclosure for Mineral Projects, has also reviewed and verified the scientific and technical information contained in this news release.

Corporate Update

Pure Energy also reports that, effective March 6, 2017, Mr. Robert Mintak will step down as Executive Chairman and director of the Company. Mr. Mintak has been an officer of Pure Energy for more than 4 years and was instrumental in the acquisition of the Clayton Valley South Project. The Pure Energy board of directors wishes Mr. Mintak good luck in his future endeavors.

About Pure Energy Minerals Ltd.

Pure Energy is a lithium resource developer that is driven to become a low-cost supplier for the burgeoning lithium battery industry. The Company is currently focused on the development of the CVS Lithium Brine Project and the adjoining Glory Lithium Clay Project in Clayton Valley, Nevada. Pure Energy also recently announced the acquisition of a purchase option on a major new lithium brine project in the Lithium Triangle of South America, the Terra Cotta Project (TCP). The TCP is located on Pocitos Salar in Salta, Argentina, where it enjoys some of the best infrastructure and access of any lithium brine exploration project in the country. Execution of the definitive agreement concerning the Terra Cotta purchase option is expected during Q1 of 2017.

Pure Energy has developed core strengths in innovative development and processing technologies for lithium brines and lithium mineral deposits. The Company's key attributes and activities include:

- Generating positive results on a large land position with excellent infrastructure in a first-class mining jurisdiction: approx. 11,000 acres in four main claim groups in Clayton Valley, Esmeralda County, Nevada;
- The only lithium brine resource in North America except for its neighbor, which is the only producing lithium operation in the United States (Albemarle's Silver Peak lithium brine mine);
- An inferred mineral resource containing approximately 816,000 metric tonnes of Lithium Carbonate Equivalent (LCE) at an average grade of approximately 102 mg/L lithium, reported in accordance with NI 43-101 (see July 2015 Inferred Resource Report);
- An advanced program of testing the efficacy and economics of modern environmentally-responsible processing technologies to convert the CVS brines into high purity lithium products for new energy storage uses;
- A new early stage exploration program on the 13,000 hectare Terra Cotta Project (TCP), located on Pocitos Salar in Salta Province; and
- An active business development program, applying its expertise to the evaluation of new lithium targets around the world.

On behalf of the Board of Directors,

"Patrick Highsmith"
Chief Executive Officer

CONTACT:

Pure Energy Minerals Limited (www.pureenergyminerals.com)
Email: info@pureenergyminerals.com
Telephone – 604 608 6611, ext 5

Forward Looking Statements: The information in this news release contains forward looking statements that are subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those anticipated in our forward looking statements. Factors that could cause such differences include: changes in world commodity markets, equity markets, costs and supply of materials relevant to the mining industry, change in government and changes to regulations affecting the mining industry. Forward-looking statements in this release may include statements regarding mineral processing, adaptation of test work to larger scale and/or future operational scales, estimates of reduced future capital and operating expenses, delivery of a preliminary economic assessment, future exploration programs, operation plans, geological interpretations, and mineral tenure issues. Although we believe the expectations reflected in our forward looking statements are reasonable, results may vary, and we cannot guarantee future results, levels of activity, performance or achievements.