

PURE ENERGY MINERALS COMPLETES SUCCESSFUL LITHIUM BRINE PUMPING TEST AT CLAYTON VALLEY SOUTH PROJECT, NEVADA

VANCOUVER, BC – (12 Oct., 2016) – Pure Energy Minerals Limited (TSX VENTURE: 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 borehole, CV-3. The test ran continuously for approximately two days and included collection of brine samples along with extensive hydrological data on the aquifers. The pumping test was designed and supervised by Pure Energy’s specialist hydrogeological consultants, Montgomery & Associates (“Montgomery”). This successful test of CV-3 provided invaluable additional data for Pure Energy’s technical team to advance and refine its understanding of the Clayton Valley South (CVS) lithium resource. The technical data from this test will be integrated into the forthcoming Preliminary Economic Assessment (PEA).

The pumping test was configured using an electric submersible pump and monitoring apparatus in CV-3 and monitoring apparatus installed in CV-1, approximately 200 meters away. The test ran at a constant rate of 69 gallons per minute (4.4 liters per second) for its duration. The hydrogeologists collected approximately 23 separate brine samples for lithium analysis over the 46-hour pumping period. Monitoring revealed that the extracted brine from CV-3 demonstrated near steady-state elevated fluid conductivity and fluid density, comparable to that measured during discrete sampling of CV-3. This suggests the production of consistent lithium brine during the pumping test.

Patrick Highsmith, Pure Energy Minerals CEO commented, *“This successful pumping test is another important milestone, advancing our exploration and development program towards a PEA. Dr. Andy Robinson and the Montgomery team have delivered a carefully designed and executed pumping test that will provide a number of the important parameters to be used in the design of a well field. This work is one more example of the professionalism of our team and our focus on building value in Clayton Valley.”*

This pumping test was performed in accordance with a State of Nevada mineral exploration waiver and a permit issued to Pure Energy by the Nevada Division of Water Resources and the Nevada Division of Environmental Protection, which authorize the temporary extraction of brine from the well and subsequent discharge to surface. The mineral exploration waiver and discharge permit provide authorization from the State of Nevada for Pure Energy to conduct the described lithium exploration activities for the CVS Project.

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 reviewed and verified the scientific and technical information contained in this news release.

About Pure Energy Minerals Ltd.

Pure Energy is a lithium-brine resource developer that is driven to become the lowest-cost lithium supplier for the burgeoning North American lithium battery industry. Pure Energy is currently focused on the development of our prospective CVS Lithium Brine Project, which has the following key attributes:

- A large land position with excellent existing infrastructure in a first-class mining jurisdiction: Approximately 9,544 acres in three main claim groups in the southern half of Clayton Valley, Esmeralda County, Nevada;
- Adjacent to the only producing lithium operation in the United States (Albemarle's Silver Peak lithium brine mine);
- An inferred mineral resource of 816,000 metric tonnes of Lithium Carbonate Equivalent (LCE), reported in accordance with NI 43-101;
- Metallurgical and process studies underway to better understand the feasibility and economics of using modern environmentally-responsible processing technology to convert the CVS brines into high purity lithium products for new energy storage uses.

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.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release