Pure Energy Reports Analytical Results from Well CV-9 at Clayton Valley Lithium Brine Project

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Vancouver, October 14, 2020 - Pure Energy Minerals Ltd. (TSXV: PE) (OTCQB: PEMIF) (the "Company" or "Pure Energy") is pleased to report sample results received from a new, recently drilled well, CV-9, at its 100%-held Clayton Valley lithium brine project ("CV Project") located in Esmeralda County, Nevada. Pure Energy's strategic partner, Schlumberger Technologies Inc. ("Schlumberger"), is operator of the program and was responsible for all phases of the drilling, well construction, and sampling at CV-9 (see press release of July 28, 2020).

Six samples of lithium-rich brine were collected from CV-9 during nine hours of continuous pumping. Analyses of the samples returned lithium concentrations of 180 to 184 milligrams per litre (mg/L) for the majority of the pumping time, with an additional higher result of 251 mg/L (Table 1) measured in the earliest sample collected. These results show consistency over time and are in line with lithium values from nearby wells CV- 1 and CV-3.

Samples collected during pumping at CV-09 yielded consistently high lithium values. CV-9's pumping sample results show brine composition containing relatively low concentrations of impurities such as magnesium (Mg), calcium (Ca) and potassium (K). Characteristically, the brines from Pure Energy's previous exploration drill holes have provided high quality brines with low impurities, which are important in the production of lithium monohydrate (hydroxide) and lithium carbonate, the principal lithium compounds used in fabrication of lithium-ion batteries.

Table 1 - Analytical results for CV-9 brine samples

Well & Sample	Time after Pumping Began (hr:min)	Brine Density (g/cm^3)	Lithium Li (mg/L)	Magnesium Mg (mg/L)	Calcium Ca (mg/L)	Mg:Li Ratio	Potassium K (m/L)
CV-9-001	0:38	NA	251	493	993	1.96	4,640
CV-9-002	3:15	1.074	184	483	1,040	2.63	2,940
CV-9-003	4:39	1.076	180	470	993	2.61	2,770
CV-9-004	6:00	1.072	182	475	982	2.61	2,770
CV-9-005	7:20	1.076	182	480	995	2.64	2,780
CV-9-006	8:51	1.076	182	481	973	2.64	2,820

The lithium content of brine from the CV-9 pumping test stabilized shortly after pumping began and remained stable throughout 9 hours of pumping. Pumping rates ranged from 1.8 liters per second (L/s) (28 gallons per minute-gpm) to 2.2 L/s (35 gpm) with an average of 1.9 L/s (31 gpm). The stable production of high-lithium brine over the duration of the pumping test and consistency of lithium concentrations with previous results from nearby wells demonstrates potential for sustained production of lithium-bearing brine from the aquifer system encountered in this area.

Well Construction and Sampling

CV-9 is located near Pure Energy's previously-drilled exploration wells CV-1 and CV-3, within the northern sector of the property. The CV-9 well was permitted and is covered under the Finite Term water permit granted to Pure Energy by the Nevada Division of Water Resources ("NDWR") in January of 2019.

The CV-9 well was drilled in two stages, using HQ-diameter diamond coring methods followed by mud rotary methods to a depth of 454 m (1,500 ft). The 8-inch diameter well was constructed to be suitable for brine production with a screened interval from 189 m to 451 m (620 ft to 1,480 ft) below ground surface. The geological host sedimentary units encountered in CV-9 core are similar to those logged and sampled in previous exploration holes drilled by the Company (see news release of July 28, 2020).

This work was performed in accordance with permits issued to Pure Energy and Schlumberger by the United States Bureau of Land Management, NDWR, and the Nevada Division of Environmental Protection, which allowed for well construction, pumping of brine from CV-9 and collection of brine samples.

Analytical Quality Assurance & Quality Control

All analytical data reported in this news release were generated by Western Environmental Testing Laboratory ("WETLAB") of Sparks, Nevada except for brine density which was measured in the field. WETLAB is accredited by the Nevada State Division of Environmental Protection for determination of lithium, magnesium and other elements in non-potable water by EPA method 200.7. Analytical results for investigative samples met laboratory quality assurance and quality control criteria. Spike recovery from a matrix spike of lithium conducted by the laboratory could not be calculated due to the investigative sample concentration being greater than four (4) times the spike amount.

About Pure Energy

Pure Energy Minerals is a lithium resource developer that is driven to become a low-cost supplier for the growing lithium battery industry. Pure Energy has consolidated a pre-eminent land position at its Clayton Valley Project in the Clayton Valley of central Nevada for the exploration and development of lithium resources, comprising 948 claims over 23,360 acres (9,450 hectares), representing the largest mineral land holdings in the valley. Pure Energy's Clayton Valley Project adjoins and surrounds on three sides the Silver Peak lithium brine mine operated by Albemarle Corporation.

The Company completed a Preliminary Economic Assessment for the Clayton Valley Project (news releases of June 26, 2017 and April 6, 2018) which includes an updated resource calculation and a preliminary economic evaluation. The economic analysis presented in the PEA is based upon inferred mineral resources only. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the Project envisioned by the PEA will be realized.

On January 3, 2019, the Nevada Division of Water Resources ("NDWR") approved and granted a Finite Term Water Right to Pure Energy, through its wholly-owned subsidiary Esmeralda Minerals LLC, for the extraction of up to 50 acre-feet of water during a 5-year period from the CV properties. This water right is deemed sufficient for brine testing requirements and SLB's future pilot plant facility.

Quality Assurance

Walter Weinig, Professional Geologist and Qualified Person as designated by the Mining and Metallurgical Society of America (MMSA registration #01529QP), is a qualified person as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects and supervised the preparation of the scientific and technical information that forms the basis for this news release.

On behalf of the Board of Directors,

"Mary L. Little"
Director, Pure Energy Minerals Ltd.

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Cautionary Statements and Forward-Looking Information

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 future exploration and development on the CV Project. 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.

The Company does not undertake to update any forward-looking information, except as required by applicable laws.

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