# Pure Energy Minerals Announces Initial Drilling Results at Terra Cotta Project, Argentina

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DENVER, May 22, 2018 (GLOBE NEWSWIRE) -- Pure Energy Minerals Ltd. (TSX VENTURE:PE) (FRANKFURT:A111EG) (OTCQB:PEMIF) (the “Company” or “Pure Energy”) is pleased to announce the results from the first two boreholes at its Terra Cotta Project (“TC Project”) in Salar de Pocitos, Salta Province, Argentina. Anomalous concentrations of lithium were discovered in all brine samples from both diamond-drill core holes, with greater lithium concentrations observed closer to the center of the salar.

The drillers reached the target depth of 400 meters below surface on each of the two boreholes, TC-DD-01 and TC-DD-02. They employed a wire-line, triple-tube HQ system, averaging more than 80% core recovery in both holes. The first borehole was developed into an exploration well using 5-centimeter diameter PVC casing with screening over brine saturated intervals for possible additional sampling. Drill hole TC-DD-02 was grouted to the surface after completion with no casing installed.

The average lithium concentration for depth-specific samples collected from TC-DD-01 was 29 milligrams per liter (mg/L) lithium, ranging from 3 mg/L to 43 mg/L lithium. Sample depths ranged from 20 meters to 370 meters below ground surface. The depth-specific samples collected from TC-DD-02 averaged 65 mg/L lithium, including a range of lithium values from 29 mg/L to 93 mg/L lithium at depths from 15 meters to 310 meters below ground surface.

Walter Weinig, Pure Energy Minerals’ Vice President for Projects & Permitting, discussed the data from the first two holes at Terra Cotta: *“The drilling at Terra Cotta showed dense brine and anomalous lithium concentrations throughout the sampled intervals. We are continuing to assess these results in conjunction with results from near-surface samples and surface geophysics as described in our press release of 1 December, 2017 to evaluate our next moves for the TC Project. Several areas at Terra Cotta with anomalous near-surface lithium values and promising geophysical results have yet to be drilled.”*

Continuous Zones of Anomalous Lithium Concentrations

The drilling encountered high-density brines very close to surface, and there were no indications of dilution from fresh or brackish water in either of the holes. Company geologists collected brine samples at discrete intervals using air-lift methods. Samples collected from core holes TC-DD-01 and TC-DD-02 contained anomalous lithium concentrations throughout the sampled intervals. Tables 1 and 2 summarize the lithium analytical results from the brine samples.

Table 1 - Analytical results for TC-DD-01 depth-specific samples

| Hole | Sample Depth (m) | Density ($g/cm^3$) | Lithium Li (mg/L) |
|---|---|---|---|
| TC-DD-01 | 19.5 | 1.016 | 3 |
| TC-DD-01 | 39.1 | 1.131 | 36 |
| TC-DD-01 | 125.2 | 1.196 | 31 |
| TC-DD-01 | 142.5 | 1.198 | 43 |
| TC-DD-01 | 160.3 | 1.193 | 17 |
| TC-DD-01 | 258.8 | 1.193 | 22 |
| TC-DD-01 | 302.8 | 1.196 | 40 |
| TC-DD-01 | 352.5 | 1.219 | 35 |

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|---|---|---|---|
| TC-DD-01 | 370.5 | 1.219 | 33 |

Table 2- Analytical results for TC-DD-02 depth-specific samples

| Hole | Sample Depth (m) | Density ($g/cm^3$) | Lithium Li (mg/L) |
|---|---|---|---|
| TC-DD-02 | 15.8 | 1.224 | 58 |
| TC-DD-02 | 31.5 | 1.195 | 74 |
| TC-DD-02 | 50.0 | 1.183 | 93 |
| TC-DD-02 | 71.3 | 1.219 | 35 |
| TC-DD-02 | 105.0 | 1.212 | 68 |
| TC-DD-02 | 120.5 | 1.210 | 73 |
| TC-DD-02 | 144.8 | 1.200 | 93 |
| TC-DD-02 | 218.3 | 1.221 | 48 |
| TC-DD-02 | 250.5 | 1.208 | 70 |
| TC-DD-02 | 286.5 | 1.205 | 77 |
| TC-DD-02 | 311.3 | 1.191 | 29 |

Drill hole TC-DD-01 is near the eastern margin of the salar, and the slightly lower brine densities and lithium values may reflect influence from peripheral surface or groundwaters. The brine encountered in TC-DD-02, located closer to the center of the salar, is somewhat more consistent, and strong salinities are indicated by the even higher density, hovering around 1.21 $g/cm^3$.

It is interesting also to note that magnesium, calcium, and other salts occur at concentrations in these samples that are comparable to those observed at Salar del Hombre Muerto and other commercial lithium salares.

Geology

The geology encountered by the first round of drilling at the Terra Cotta Project is indicative of a hybrid clastic – halite type of salar. This is consistent with the Company’s interpretation of the geophysical surveys completed late last year (see Company news release dated 1 December, 2017). Drilling has now confirmed the presence of a significant salt body enveloped by and interbedded with lacustrine and alluvial sediments, such as clay, silt, and sand. The more porous sandy units resulted in areas of apparent high brine inflow into the boreholes during drilling. Pure Energy geologists have observed similar halite-clastic settings hosting productive lithium brines at other salares, such as at the Sal de Vida Project at Salar del Hombre Muerto. The Company’s geology and hydrogeology team will build an interpreted geological model, which will be used to rank possible follow-up targets at depth and in other areas of the basin.

At TC-DD-01, the lithology from surface to 146m below ground surface was dominantly brown reddish clay interbedded with thin bands of medium-grained sand and isolated beds of travertine (hot springs deposits). Project geologists also observed some gypsum and an isolated grey weathered tuff layer in this upper zone. From 146m to 372m below ground surface, the geology consisted mostly of massive halite with interspersed zones of dark grey medium-grained sand. The remainder of the hole, from approximately 372m to the bottom of the hole at 400.5m, passed through a long section of reddish brown massive clay.

At TC-DD-02, the upper stratigraphy from surface to 228m consisted primarily of brown silty clay with minor interspersed beds of sandy clay. The particle size coarsened somewhat from 228m to 327m below ground surface, as reddish brown silty clayey sand with intermittent thin clay beds was the most important unit. Below 327m, the borehole passed back into clay-rich sediments with variable silty and sandy components to the bottom of the hole at 400.5m.

The geology revealed by this drill program at the TC Project has several encouraging elements. The drillers noted numerous intervals of relatively high brine inflow rates. The presence of the large halite body at TC-DD-01 indicates consistent salinity in the groundwater with no significant freshwater inflows. Also

intriguing is the depth of the basin. Even though TC-DD-02 was drilled near the edge of the salar and TC-DD-02 was located in the middle, both holes reached target depth with no indications of an imminent bedrock contact. The fact that both holes ended in fine grained sediments may suggest that the basin is deeper than previously expected. Often in salares, basal sediments are more coarse grained and enriched in lithium than the shallower aquifers. Some of these deeper aquifers, geophysical anomalies, and encouraging surface brine chemistry constitute potential drill targets.

Quality Assurance & Quality Control

The quality assurance measures applied by Pure Energy during this program, included: use of an accredited primary analytical laboratory, use of an accredited check laboratory, 100% replicate analyses on brine samples, and blind analytical control in the submissions to the laboratories.

Alex Stewart Argentina S.A. (ASA) in Jujuy, Argentina performed the brine assays of the investigative samples. ASA is independent of Pure Energy, has significant experience in assaying lithium brines, and is certified to ISO17025 standards for lithium brine assays. SGS of Buenos Aires, Argentina performed check assays on a replicate of each brine sample. SGS is certified to ISO 9001:2008 and ISO 14001:2004 standards for geochemical analysis of numerous sample types, including brines. SGS employs similar analytical methods to those used by ASA. SGS is independent of Pure Energy.

Project geologists submitted blind duplicate samples to both ASA and SGS at a rate of at least 10% of investigative samples. They also submitted blank samples to both laboratories at a rate of at least 10% of investigative samples.

All quality control data from TC-DD-01 and TC-DD-02 complied with the Company’s criteria for acceptance. The comparison between the investigative and check laboratory results was within acceptable tolerances. Therefore, the data reported in this release are believed to be of acceptable quality.

Pure Energy performed this work in accordance with environmental permits issued to the Company by the Secretary of Mining in Salta Province (see Pure Energy press release dated 13 December, 2017) which allowed for both coring and rotary drilling, well construction, collection of brine samples, and extraction of brine from the exploratory wells with subsequent discharge to surface during pumping tests should any be conducted.

Walter Weinig, Professional Geologist and SME Registered Member (SME Registered Member # 4168729), is a qualified person as defined by NI 43-101 and supervised the preparation of the scientific and technical information that forms the basis for this news release. Mr. Weinig is not independent of the Company as he is an officer.

About Pure Energy Minerals Limited

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’s CV Project is located in Esmeralda County, Nevada, adjacent to the only producing lithium-brine operation in North America. The CV Project has access to excellent infrastructure and an experienced workforce in one of the world’s premier mining jurisdictions. The Company is also exploring a new lithium brine project in the Lithium Triangle of South America, the Terra Cotta Project (“TC Project”). The TC Project is located on Salar de Pocitos in Salta, Argentina, where it enjoys some of the best infrastructure and access of any lithium brine exploration project in Argentina.

On behalf of the Board of Directors,

“Patrick Highsmith”
Chief Executive Officer

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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 and equipment relevant to the mining industry, weather or other conditions that may affect access to the Company’s project sites, change in government and changes to regulations affecting the mining industry. Forward-looking statements in this release may include statements regarding future exploration work on the TC Project and completion of various studies. 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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