

# MGX Minerals Files Technical Report on Rapid Lithium Extraction Process

**VANCOUVER, BRITISH COLUMBIA** / April 26, 2017 / **MGX Minerals Inc.** ("MGX" or the "Company") (CSE: XMG / FKT: 1MG / OTC: MGXMF) has filed a technical report (the "Report") on SEDAR related to the environmental treatment and recovery of lithium from oil industry wastewaters and continued development of its technology portfolio. The report is now available for viewing under the Company's profile at <a href="https://www.sedar.com">www.sedar.com</a>.

As previously announced, MGX and PurLucid Treatment Solutions ("PurLucid) are developing brine treatment and lithium recovery technologies that provide superior performance while meeting a broad spectrum of treatment needs. The technology suite complements existing MGX technologies (U.S. Provisional Patent #62/419,011) (see press release dated March 6,2017).

The independent engineering group Saskatchewan Research Council ("SRC") recently validated the rapid recovery technology results (see press release dated April 20, 2017) from Phase 1 testing by Dr. McEachern. Phase II bench top testing commenced in February with new brine pre-treatment and concentration designs. The new design incorporates PurLucid's proprietary filtration technology and process optimization tools. In four consecutive bench-scale trials, lithium was successfully concentrated by more than 25-fold and the resulting brines contained far fewer impurities (notably calcium, magnesium, boron and sodium) that impede subsequent production of lithium solids. MGX plans to conduct a second round of independent testing with SRC once the upgraded design process is finalized.

Example results from Phase II testing are shown in the table below. Step 1 permeate demonstrates the limited lithium loss during initial environmental treatment (deoiling and scale reduction) of oilfield brines for reuse.

	Units	Sturg. Raw	Step 1 permeate	Concentrate 1	Concentrate 4
Total Aluminum (Al)	mg/L	0.97	0.030	10	1.3
Total Barium (Ba)	mg/L	10	8.6	1.7	0.94
Total Boron (B)	mg/L	110	100	3.7	6.0
Total Calcium (Ca)	mg/L	23000	17000	370	420
Total Lithium (Li)	mg/L	67	65	1600	1951
Total Magnesium (Mg)	mg/L	2800	5.7	13	40
Total Potassium (K)	mg/L	4500	4400	12	8.8
Total Sodium (Na)	mg/L	57000	61000	68	49
Total Strontium (Sr)	mg/L	840	780	30	23
Total Sulphur (S)	mg/L	96	89	6.9	9.9



The report further discusses the recovery of lithium solids which are currently undergoing analysis for purity and crystallinity by x-ray diffraction and energy dispersive x-ray spectroscopy.

Also discussed in the report are on-going trials in oil industry wastewater treatment and the suitability of these waters as sources for subsequent lithium recovery. Excellent results have been achieved in oil removal (>99%) from waters with free and emulsified oil concentrations as high as 20,000 mg/L. Silica and other scale forming ions have been removed across a range of industrial brines making these waters suitable for further processing in lithium recovery and/or for reuse in the oil industry.

Sample chain of custody was managed by Roy Eccles (M.Sc., P. Geo.), a qualified person under National Instrument (N.I.) 43-101 Standards, and Dr. Preston McEachern, CEO of PurLucid. Samples were submitted to Maxxam Analytical Labs ("Maxxam") for ICP-ES analysis. Maxxam is an independent, ISO-certified analytical laboratory.

# **Qualified Person**

The technical portions of this press release were prepared by Dr. Preston McEachern, CEO of PurLucid Treatment Solutions Inc., and have been reviewed by Andris Kikauka (P. Geo.), Vice President of Exploration for MGX Minerals. Mr. Kikauka is a non-independent Qualified Person within the meaning of National Instrument (N.I.) 43-101 Standards.

MGX may decide to advance its petrolithium projects into production without first establishing mineral resources supported by an independent technical report or completing a feasibility study. A production decision without the benefit of a technical report independently establishing mineral resources or reserves and any feasibility study demonstrating economic and technical viability creates increased uncertainty and heightens economic and technical risks of failure. Historically, such projects have a much higher risk of economic or technical failure.

# **About MGX Minerals**

MGX Minerals is a diversified Canadian mining company engaged in the development of large-scale industrial mineral portfolios in western Canada and the United States. The Company operates lithium, magnesium and silicon projects throughout British Columbia and Alberta as well as petrolithium exploration in Utah. Learn more at <a href="https://www.mgxminerals.com">www.mgxminerals.com</a>.

#### **About SRC**

The Saskatchewan Research Council (SRC) is one of Canada's leading providers of applied research, development and demonstration (RD&D) and technology commercialization. With more than 375 employees, \$70 million in annual revenue and over 69 years of RD&D



experience, SRC provides products and services to its 1,500 clients in 20 countries around the world.

### **Contact Information**

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# **Forward-Looking Statements**

This press release contains forward-looking information or forward-looking statements including the completion of the rights offering (collectively "forward-looking information") within the meaning of applicable securities laws. Forward-looking information is typically identified by words such as: "believe", "expect", "anticipate", "intend", "estimate", "potentially" and similar expressions, or are those, which, by their nature, refer to future events. The Company cautions investors that any forward-looking information provided by the Company is not a guarantee of future results or performance, and that actual results may differ materially from those in forward-looking information as a result of various factors. The reader is referred to the Company's public filings for a more complete discussion of such risk factors and their potential effects which may be accessed through the Company's profile on SEDAR at www.sedar.com.