



MGX Minerals Announces Advancement in Nanofiltration Lithium Technology; Commences Initial Design of 2400 Cubic Meter Per Day Plant

VANCOUVER, BRITISH COLUMBIA / February 12, 2018 / **MGX Minerals Inc.** (“MGX” or the “Company”) ([CSE: XMG](#) / [FKT: 1MG](#) / [OTCQB: MGXMF](#)) is pleased to report the adsorbtion rate for the Company’s lithium extraction nanofiltration process (the “System”) has been increased from 20mg/g, milligram of lithium per gram of adsorbtion reagent, to an optimized 40mg/g Li/reagent. This reflects a doubling of adsorbtion rate and a significant cost cutting breakthrough as reagents reflect the single largest cost in the Company’s lithium extraction process. This advancement reduces reagent use and the direct cost of lithium chloride recovery from brine. Additionally, reagent depletion in the lithium nanofilter has now been reduced to less than 1% per cycle, increasing the operating time and associated recovery for the lithium nanofilter prior to requiring recoating with the reagent.

This work was completed by engineering partner **PurLucid Treatment Solutions** (“PurLucid”) at its Calgary, Alberta facility as part of the commissioning of the Company’s first 120 cubic meter (750 barrel) per day small commercial lithium extraction system. The System utilizes these latest advancements in lithium nanofiltration. The System is currently undergoing final flow testing and optimization in preparation for deployment.

The System utilizes a highly charged Replaceable Skin Layer (RSL™) membrane related to the nanofiltration and High Intensity Froth Flotation (HiFF) system, known as nanoflotation, which collectively have demonstrated performance superiority over other processes typically used to remove contaminants. The technology allows ultra-high temperature water treatment (up to 700°C) at 10-30 times the efficiency of existing ultrafiltration systems and offers numerous environmental water purification and mineral extraction benefits, including contaminant removal, mineral recovery, reduced energy demand, and small footprint.

1200 and 2400 Cubic Meter per Day Plants

The first 1200 cubic meter system is in final engineering design phase by engineering partner PurLucid. Fabrication is expected to commence shortly and be completed by Summer. The system is under contract for deployment at an oilsands SAGD site under a water purification agreement targeting a reduced cost of 50% as compared with the current truck and dispose option, as well as reduction of physical hydrocarbon (bitumen) waste product footprint, clean water reuse and minerals recovery.

Additionally, the initial component design of a 2400 cubic meter (13,000 barrels) per day system has been completed. The basic system and tanks are designed to fit within a 42’ x 64’ building housing nano-flotation pre-treatment sub-system, nano-filtration lithium and mineral extraction subsystem, mineral holding tanks, sludge processing, and on-site laboratory.



About MGX Minerals

MGX Minerals is a diversified Canadian resource company with interests in advanced material and energy assets throughout North America. Learn more at www.mgxminerals.com.

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