Metalore Resources Limited Supply Risk Discussion & Strategy for Existing Field Line Customers By: Jim McIntosh June 24, 2019

In item #26 of the June 13th, 2019 submission from Enbridge Gas Inc. concerning EB 2019-0089: *Metalore Resources Application for a Certificate of Public Convenience and Necessity* ("CPCN"), Enbridge Gas Inc. ("EGI") suggested that Metalore Resources Limited ("MRL") should be required to provide proof that, if the New Leaf Canada Inc. ("NLC") CPCN were approved and installed, MRL would have sufficient natural gas supply to continue service to the existing EGI Field Line Customers ("FLCs"), as well as providing service to the NLC Walsh Facility. This *Supply Risk Discussion & Strategy* addresses these concerns.

MRL has not added any additional wells to their Charlotteville system since 2004. Since then, the monthly sales from wells in their system has split between the FLC group and the three (3) Union Gas Limited ("UGL", now EGI) meter sites. The peak FLC gas consumption off MRL's system occurs in September or October during grain drying and tobacco curing season (Figure 1), with peak monthly consumption of 13,000 to 15,000GJ/month. Fall/winter/spring heating loads are fairly consistent at 4,000 to 6,000GJ/month. Summer loads at very low, usually below 3,000GJ/month.

Since 2012, MRL has delivered gas sales to the 3 EGI custody transfer meter sites connected to the system every month. To be able to deliver gas into EGI's system, MRL has to maintain at least 110 to 120 psi pressure throughout their system to be able to overcome the operating pressure of EGI's system in the area. During the September to October peak FLC consumption periods, MRL has still been able to deliver 5,000GJ/month into the 3 meter sites.

To supply gas to the NLC Walsh Facility, MRL will simply shut-in at least one of the EGI custody transfer meter sites during the peak September to October FLC consumption. The FLC meter sites do not require 110 to 120 psi upstream system pressure to be able to deliver sufficient gas to supply individual FLC gas needs. With the EGI custody transfer sites shut-in or not delivering gas, the MRL system pressure will gradually decline during high consumption periods, with the gas wells recharging the system during periods of low consumption. Grain drying or tobacco curing facilities typically operate for 8 to 12 hours per day, with peak natural gas consumption within the first hour as the grain siloes or kilns warm up. During the peak September to October drying and curing period, the MRL system pressure could be expected to decline from 110 to 120 psi to possibly 50 to 60 psi during the active 8 to 12 hour period. With the lower pipeline system pressure, the flow rates from the individual wells will increase as well. During the 12 to 16 hour period when the grain driers and kilns are shut-in, the system pressure will gradually increase back to the 110 to 120 psi range before the next drying or curing day.

NLC is aware of the consumption profile of the FLC group off the MRL system. It has been explained to them that the FLC group takes precedence over NLC withdrawals off the system. To be able to heat their facilities during those short periods of maximum FLC gas consumption,

NLC is installing propane as backup fuel. As part of the piping construction at their dehydration/metering station, regulation will be installed that will restrict NLC from drawing the MRL system down below 50 psi. If NLC does not have sufficient natural gas fuel due to MRL regulator restrictions, their propane backup system will tied them over until the MRL system pressure exceeds 50 psi and deliveries resume to the NLC Walsh Facility.



Figure 1. Metalore Gas Sales to Enbridge, FLCs, & New Leaf