Dr. Ray Gosine Chair, Hydraulic Fracturing Review Panel

c/o Office of Associate Vice-President (Research) Bruneau Centre for Research and Innovation, IIC-3067 Memorial University of Newfoundland St. John's, NL, A1C 5S7 (709) 864-3104

May 8th, 2015

Dear Dr. Gosine,

It is with great concerns for our environmental and economic security in Newfoundland that I am writing you with apprehensions towards allowing hydraulic fracturing in our province. I am an agricultural business startup owner, professional engineer, mother, and rural Newfoundland resident, and it is of my opinion that permitting hydraulic fracturing in our province can be detrimental to our long term longevity and security.

We must take the lead of other provinces such as New Brunswick, Nova Scotia, and Quebec in refusing to allow fracturing on our land. The risks outweigh the benefits of profiting off yet another non-renewable resource. If the current financial climate in our province is of any indication, to continue to look toward volatile non-renewable greenhouse gas emitting resources as a secure means of ensuring a reliable source of capital may pose significant financial risks to our people. We must instead forge ahead with new ideas and sustainable technologies in order to ensure we meet our energy needs with a progressive spirit and attention to the needs of the land that gave us life. Our focus should be on reducing our energy consumption and the implementation of energy technologies that are more in line with sustainability. Permitting hydraulic fracturing in the province would only be delaying the inevitable end of fossil fuels, however it could be at a cost to society and the earth that would not be possible to be paid back in full.

As an individual starting up a small community-oriented agricultural business, I also have grave concerns regarding the potential contamination of ground and surface water from hydraulic fracturing. Just recently it was published in the Proceedings of the Natural Academy of Sciences that tap water in Pennsylvania had been contaminated due to the process of extracting shale gas nearby. Additives to the water used in the process such as the chemical compound "2-n-Butoxyethanol" had been identified in household tap water¹.

¹ Llewellyn, G.T., Dorman, F., Westland, J.L., Yoxtheimer, D., Grieve, P., Sowers, T., Humston-Fulmer, E., and Brantley, S.L., Evaluating a Groundwater Supply Contamination Incident Attributed to Marcellus Shale Gas Development, *Proceedings of the National Academy of Sciences of the United States of America*, May 2015.

In addition, all over the planet fracturing has been alleged to cause soil and ground water contamination through surface spills from waste water evaporation ponds and leaks in holding tanks. Other major environmental complications that has been attributed to hydraulic fracturing such as methane and radionuclide release, induced micro seismic events, and poor land usage pose a danger to our society. The negative impacts it can have on our other key industries such as agriculture, forestry, fisheries, and tourism may be unrepairable and is far too great of risk for Newfoundlanders to carry. The health of the citizens of our province and our land is more important than the potential albeit risky financial opportunities from hydraulic fracturing.

I urge you to please reflect on the environmental, social, and economic issues surrounding hydraulic fracturing and make the recommendation to Minister Derrick Dalley that the practice be banned from the province of Newfoundland and Labrador until it can be proven to be completely safe for humans and the environment. The potential catastrophic and irreversible damage that can be caused is too much a risk to be considered for our land.

Sincerely,

A. George