Let the tight oil crude and oil sands bitumen flow

By Pierre Desrochers and Hiroko Shimizu
For The Drill

TORONTO — In our last column, we discussed Laura Ingalls Wilder's "The Long Winter," her most historically factual of the "Little House on the Prairie" book series.

Our goal was to remind modern readers of how crucial the railroad once was to the inhabitants of the Dakota Territory. It made it possible for local pioneers to supply the rest of the world with what they did best, such as growing cereal grains, and in providing them with cheaper and more diverse goods, including other types of food such as oranges — a luxury product that most people of the Northern Plains only indulged in on special occasions like Christmas or birthday parties.

Without the railroad, the Dakota settlers would have been condemned to an even more miserable life of subsistence farming and, without the ability to import large amounts of food at affordable prices, would have died in significant numbers in the wake of bad weather events that destroyed much of their crops or granaries.

Drill readers are well aware that rail transportation has enjoyed a renaissance in the last few years and, as long as pipeline transportation remains deficient, it is a necessary mean of moving large quantities of Bakken crude out of the region.

Canadians sadly woke up to that fact in the wake of the Lac-Mégantic, Québec, freight train derailment of July 2013 that claimed 47 lives. After grieving over the country's worst railroad disaster in more than 150 years, many Canadians are left puzzled by the fact that a country so well-endowed in natural resources — and the world's sixth-largest crude oil producer — need to import Bakken oil in the first place.

Why is it, they asked, that Irving Oil, the owner of Canada's largest petroleum refinery, had imported about 4,000 tank cars full of North Dakota crude to its Atlantic Coast operation in the previous eight months of the incident? And what about the fact that in 2012 Canada produced more than 3 million barrels per day, but exported about two-third of this volume — virtually all of it to the United States — while simultaneously importing about 700,000 barrels per day from overseas, much of which came from African and Middle Eastern countries with awful political tract records?

Surely, some people argued, something was amiss and Canadians would be better served by restricting exports to the United States and substituting Canadian production to foreign imports. The truth, however, is that doing so would be akin to having asked the Ingalls Wilders to resort to subsistence farming. In other words, an even more miserable existence where one could not even dream of oranges for Christmas!

In the case of crude oil, the answer to the apparent Canadian puzzle lies in a better understanding of the importance of geography, economics and available technologies.

As in the U.S., in the world of oil production and refining, Canada has long been divided in regional "orbits" or "islands." Most of the country's supply is produced in the western Canada Sedimentary Basin, primarily Alberta.

Getting western crude oil economically to eastern markets such as Québec and the Atlantic provinces, however, was always a challenge in light of the long distance, rough terrain and small markets involved.

Against the wishes of many Canadian nationalists, it was decided in the post-World War II era to let markets mostly dictate the flow of Canadian oil. As a result, western and central Canada (Ontario) ended up supplying most of their needs with Canadian crude while eastern Canada continued to rely on world markets through tanker ships. Excess western Canadian production was exported to the U.S. market, primarily the Upper Midwest.

As an aside, few Americans realize how important their northern neighbor has long been in terms of providing them with a crucial, reliable and affordable supply of raw materials of all kinds.

Most importantly, for about a decade now, Canada has been America's largest supplier of crude oil, ahead of political dictatorships such as Saudi Arabia and Venezuela. Of course, Canadians were thanked for this by endless stalling tactics to prevent the development of the Keystone XL pipeline that would deliver additional Canadian crude to Gulf Coast refineries.

Fast forward a few decades and we now have a situation where Bakken crude is displacing some — although overall tiny — portion of the foreign oil eastern Canadian refineries have long depended upon. How did this happen?

One factor is obviously the U.S. government does not ban crude oil export to Canada as it does for other countries in the world. Another is that, as readers of this column are painfully aware, the surge in tight oil production in the Northern Plains was so sudden that the transportation infrastructure couldn't keep up, resulting in bottleneck problems that have heavily discounted Bakken crude price against other alternatives.

While North Dakota's producers proved creative in their use of trucks and railroad, there are only so many places you can go and so much crude you can move that way. One such location was eastern Canada.

Alberta producers face similar bottleneck problems and difficulties in delivering their production to eastern Canadian refineries. This is why it made sense for Irving Oil to supply its New Brunswick refinery with some railcars loaded with North Dakota oil. Interestingly, much of the products derived from this crude ended up back in the U.S., as Irving's profitability has long depended on exports to the American market — primarily New England and mid-Atlantic Coast. And while, in theory, Irving Oil could upgrade its facility to process the much heavier and more sour oil sands' output, doing so would cost more than a billion dollars.

While eastern Canada is unlikely to ever be a significant market for Bakken producers, it illustrates how radically tight oil recovery technologies like hydraulic fracturing have changed energy markets and how obsolete policies such as the U.S. crude oil export ban have become. Americans who object to lifting it on national security grounds, however, could learn a few things from Canadians. The first is that eastern Canadian refineries have for decades relied on multiple foreign suppliers and have never faced any shortage, for if one supplier foolishly decides to boycott you, others will jump at the opportunity to sell you more. There is safety in numbers and crude oil is a liquid and that will flow wherever it is needed.

The other is that, provided the price is right, satisfactory volumes of crude oil of the appropriate quality will flow where it is needed. True, crude oil trade is a highly politicized commodity, but technological advances have made it ever more abundant and there is now enough and to spare for all.

If Laura Ingalls Wilder was somehow to wake up in a modern supermarket, she would probably remark that our daily lives are best described as her Christmas days on steroids.

Long-distance trade and regional specialization have made our world a remarkably better place than it once was, even though many people are bewildered by seemingly bizarre trade patterns. Lifting the U.S. crude oil export embargo and letting Canadian crude flow in the U.S. might upset some nationalists on both sides of the border. But it will benefit everyone in the end.

What Laura Ingalls Wilder would say?

Have a news tip or idea for The Drill, contact manager Kevin Holten at 701-456-1208.