



OPI NEWSLETTER

THE VOICE OF THE ONTARIO OIL AND NATURAL GAS INDUSTRY

FALL 2018

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555 Southdale Rd. East, Suite 203
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Tel: (519) 680-1620

Email:

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www.ontariopetroleuminstitute.com

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Encouraging responsible exploration and
development of the oil, gas, hydrocarbon
storage and solution-mining industries in
Ontario

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OPI Chooses President and make appointments



Dale Holland, OPI President

At its inaugural meeting on November 16, 2018 the 2019 Board of Directors elected Dale Holland as President along with Jim McIntosh, First Vice-President; Frank Kuri, Second Vice-President; Lonnie Barnes, Treasurer; and Denis Marcus, Secretary, and appointed Committee Chairs for 2019. The executive are also the officers of the Oil, Gas and Salt Resources Corporation that manages the Oil, Gas and Salt Resources Trust that operates the Oil, Gas and Salt Resources Library.

Also appointed were Committee Chairs for 2019:

Award of Merit Committee – Jack Norman
Conference Committee – Ian Colquhoun
Governance Committee – Jack Norman
Historic Committee – Lonnie Barnes
Membership Committee – Dale Holland
Nominating Committee – Jack Norman
Producers Committee – Jim McIntosh
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Annual General Meeting

OPI Board of Directors

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Dale Holland
Holland Testers Ltd.
(519) 322-8015

1st Vice President

Jim McIntosh
Jim McIntosh Petroleum
Engineering Ltd.
(519) 657-2176

2nd Vice President

Frank Kuri
Consultant
(226) 926-9464

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Denis Marcus
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(519) 695-3735

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Lonnie Barnes
Barnes Oil Co.
(519) 834-2339

Directors

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Double B Well Services Ltd.
(519) 381-9337

Ian Colquhoun
Consultant
(519) 476-9967

Mike Dorland
Consulting Geologist
(519) 532-3469

Mike Hunter
Resource Link
(519) 426-5089

Jane Lowrie
Clearbeach Resources Inc.
(519) 657-2151

Kathy McConnell
Enbridge Gas Distribution Inc.
(519) 862-6032

Jack Norman
Elexco Ltd.
(519) 686-0470

David Thompson
Northern Cross Energy Limited
(403) 870-1524



Jordan Clark, OGSRL

The Ontario Petroleum Institute Annual General Meeting was held on November 1, 2018 at the Best Western Stoneridge Inn in London, Ontario.

The AGM elected the following members to the 2019 OPI Board of Directors: Dale Holland - Holland Testers Ltd., Jim McIntosh - Jim McIntosh Petroleum Engineering Ltd., Denis Marcus - Harold Marcus Limited, Frank Kuri - Consultant, Jane Lowrie - Clearbeach Resources Inc., Jack Norman - Elexco Land Services, Ltd., Kathy McConnell- Enbridge Gas Distribution Inc., Ian Colquhoun - Geological Consultant, Dave Thompson - Northern Cross Energy, Ben Barnes - Double B Well Services Ltd., Mike Dorland - Consulting Geologist, Lonnie Barnes - Barnes Oil Co., Michael Hunter – Resource Link.

The members approved the Ontario Petroleum Institute Inc. Financial Statements for the year ended August 31, 2018, and appointed Scrimgeour & Company, Chartered Accountant auditor for the Ontario Petroleum Institute, Ontario Oil, Gas and Salt Resources Corporation and the Ontario Oil, Gas and Salt Resources Trust.

The OPI 25 Year Pin Recipients for 2018 were Ken Gould, Lambton Area Industries Ltd.; Marc Rivard, Rivard Excavating Ltd.; Ian Veen, Black Creek Well Service Inc.; and Robert Wainwright, Ecan Energy Services Inc.

Message from the Executive Director

After a bit of a lull over the summer the OPI has had a busy agenda from September through November of 2018.

The OPI Board of Directors met on September 14th. The items discussed included the 2019 OPI Budget, setting the date from the Annual General Meeting, reviewing the Board of Directors slate from the Nominating Committee, and a report on the on-going work of the OPI-MNRF Hydrocarbon Sector Working Group.

Reports were provided on the OPI's activities related to the 2018 International Plowing Match, 2019 Oil & Natural Gas Magazine, and the Thames-Sydenham Source Protection Committee.

The various reports discussed at the meeting included Producer Committee concerns on the price differential between Imperial Oil and other buyers, questions as to what effect on prices and rates are determined by the Ontario Energy Board, a presentation on carbon capture and trade, and the priorities for the industry in 2019 were discussed.

The Conference Committee reported on the progress of EPEX 2019: OPI 57th Conference and Trade Show next April 29-30, 2019 in London.

The Governance Committee completed its review of the OPI By-laws with proposed amendments. A motion was passed to have the amendments voted on at the AGM.

The OPI members on the OPI-MNRF Hydrocarbon Sector Working Group completed their review and provided recommendations on the final reports prepared for the Working Group. The recommendations will be discussed at the next meeting scheduled for December 5, 2018. And with Ontario's Progressive Conservative government just over four months into its mandate the OPI is taking steps to open discussions with the Ministries of Natural Resources and Forestry, Energy, Finance, Northern Development and Mines, and Indigenous Affairs, Infrastructure; Environment, Conservation and Parks, and Agriculture, Food and Rural Affairs.

The Directors' objectives in approaching the Provincial Government will include increasing Ontario produced oil and natural gas, establish a drilling incentive program, supplying natural gas to rural communities,

and the implementation of the recommendations of the OPI-MNRF Hydrocarbon Sector Working Group.

The Oil, Gas and Salt Corporation has prepared its 2019 Trust Business Plan/Budget for presentation to the Oil, Gas, and Salt Resources Trust Advisory Committee which has oversight approval for the Trust operating budget.

The OPI, Oil, Gas and Salt Resources Library and the MNRF Petroleum Operations Section continue to hold regular meetings to collaborate on the operations of the Library. As partners in the management and operations of the Library the meetings are important to ensure there is collaboration on financial objectives, client services and facilities support.

I hope you enjoy this issue of the OPI Newsletter and please contact me anytime at 519-630-4204 or at hughmoran@ontariopetroleuminstitute.com.

Hugh Moran, Executive Director

OPI Talking Points

OPI-MNRF Hydrocarbon Sector Working Group

The OPI-MNRF Hydrocarbon Sector Working Group will meet in early December to review the final reports that have been prepared as part of a review of the operations of Ontario's oil and natural gas production. The reports are a collaborative undertaking by the OPI and the MNRF that reviewed policy and regulations related to suspended wells, inspector protocols, historical standards, well abandonment standards, well approval process, examiner protocols, and private gas wells.

2019 Oil & Natural Gas Magazine

The next issue of the Ontario Oil & Natural Gas Magazine will be published in February of 2019. The OPI would welcome anyone interested in participating to submit an article and/or an advertisement to help the industry promote oil and natural gas development in Ontario. The magazine is being published in a partnership with DEL Communications a Winnipeg based publishing company.

2018 International Plowing Match

The OPI had its exhibit booth at the 2018 International Plowing Match and Rural Expo that was held in Pain Court just outside of Chatham, Ontario from September 18-22, 2018. The exhibit booth provided attendees with an opportunity to learn about the past and present from information on-hand from the Oil, Gas and Salt Resources Library and the Oil Museum of Canada.

Source Water Protection Committee

The OPI continues its involvement in the Thames-Sydenham and Region Source Protection Committee (SPC). The Thames-Sydenham and Region includes 31 municipal drinking water systems which are surface

water based including Great Lakes sources, and 25 are groundwater based. The Ontario Clean Water Act requires that source protection plans are reviewed and updated on a periodic basis. At its recent meeting held on October 19, 2018 the Source Protection Committee endorsed a Workplan for submission to the Minister of Environment, Conservation and Parks.

Training

Check your tickets for H2S Alive, WSBOP and FLBOP and let Lorraine at the OPI office know if you require as we will try to schedule training courses for the Spring of 2019.



Online registration opening soon! Exhibitor applications have been emailed out. For more information check out our website at: <http://www.ontariopetroleuminstitute.com/news-events/conferences/>

From the News Room

Alberta's oil problem is Canada's problem

Alberta's energy sector is hurting severely but few in the rest of Canada seem to care. What had been a locomotive for growth both in the province and the country is reeling under the combined pressure of collapsing oil prices and policy paralysis. What limited amounts of oil Alberta is able to export sells at roughly US\$13 per barrel, 40 per cent below the world price and well below the costs of production. With world prices at US\$40+ the lost revenue from the "Canadian discount" is about US\$100-million per day or US\$36-billion per year. Cuts are being implemented by energy producers on capital spending, on work forces and on production and are prompting demands by some for OPEC-style production quotas that would help stabilize the market.

All this at a time when global demand for oil and gas continues to grow. Oil production in the United States alone has increased by two million barrels a day, to 11 million, which, along with increased global production, is squeezing Canadian supply even further. Transportation costs, especially by rail, for lengthy supply chains are an additional burden.

The major problem is the chronic lack of pipeline capacity in Canada that would enable shipments to markets south, east and west of our borders. Plans have either been delayed, discarded or rejected outright by policy gridlock in Ottawa, regulatory delays and erratic, judicial activism. The only plan that is still alive is the extension of the Trans Mountain line in British Columbia. When the owner (Kinder Morgan) backed away because of political and regulatory uncertainties, the government nationalized the project at a cost of \$4.5-billion to taxpayers. Yet, there is still no guarantee that this pipeline will ever be built.

Earlier, the federal government had rejected the Northern Gateway pipeline, which has been conditionally approved by the National Energy Board, leaving Trans Mountain as the only option to tidewater on the west coast.

A circuit judge in Montana, who had been appointed by former U.S. president Barack Obama, recently overruled President Donald Trump's approval of Keystone XL contending that the approval had been "political" while ignoring the fact that Mr. Obama's rejection had itself

been "political" and not supported by any environmental analysis.

Energy East was abandoned by the proponent (TransCanada) due to the excessive regulatory burden imposed on the project and lukewarm political support from Ottawa. Meanwhile, hundreds of tankers carry oil from Saudi Arabia and other countries up the St. Lawrence River free of regulatory restrictions on "upstream emissions." (A curious bonus for Saudi Arabia these days).

Absent pipelines, shipments by rail have doubled to 400,000 b/d increasing carbon emissions if not risks substantively. New startups for refining capacity in Canada would help but only marginally.

Strong pressure from environmentalists and some Indigenous groups prompted the government to attempt a compromise allowing for a pipeline (Trans Mountain) in exchange for a commitment to a carbon tax. But the attempt at a Solomon-style balance did not work. According to polls, environmentalists represent a minority view on the issue of pipelines but that minority has major, political influence, notably in British Columbia and Quebec. Several other provinces are now resisting implementation of the carbon tax. However, Bill C-69, now before the Senate, will only add further complexity to an already stultifying process for regulatory approval.

Major shifts downward in the pump price for gasoline will challenge any government attempt to manage supply and demand with carbon taxes or "prices on pollution."

It should not be a binary choice between one or the other but there is a pressing need for a realistic balance between the two. Given the availability and demand for relatively low-priced supplies of oil and gas, the global carbon-reduction targets inspired by the Paris Accord are unattainable by any measure. Not one G20 country, including Canada, is currently compliant so a major recalibration is in order, preferably one that re-engages the United States.

There is no easy solution to the self-made conundrum. Even if pipelines were approved quickly, it would take three to four years to make them operational.

The hard reality is that Canada is losing vast amounts of revenues and curtailing its oil production while the rest of the world profits.

The principal challenges for any Canadian government are national unity, prosperity and security. Given the gross dysfunction throttling Alberta energy, the first two are now in jeopardy. Calls for Western separation from frustrated Albertans are gathering steam. Speaking in Calgary on Thursday, the Prime Minister acknowledged the crisis, described the oil price as “unacceptable” adding the market factors were “complex.” But “I feel your pain” empathy is not sufficient. The problem affects Canada as a whole, not just Alberta, and cries out for bold leadership that will break the logjam and serve the national interest.

*Derek Burney was Canada’s ambassador to the United States from 1989 to 1993 and served as a director of TransCanada Corp. from 2005 to 2017.
Special to The Globe and Mail
November, 2018*

Canada needs leadership to address our oil patch crisis

As Canadian oil prices continue to deteriorate relative to world oil prices, Canada’s oil industry faces one of the most significant crises in decades.

Western Canadian Select (WCS), which is the benchmark price for diluted bitumen produced from the oil sands, traded for about US\$13 a barrel on Nov. 15, some US\$43 a barrel below West Texas Intermediate crude (WTI). In a balanced market, WCS would have sold for about US\$42 a barrel.

Prices for light sweet crude oil from conventional reservoirs and synthetic crude oil (SCO) from the oil sands also continued to fall, hitting prices below US\$30 a barrel, a discount of US\$30 a barrel relative to WTI when in a balance market the discount should be less than US\$5.

Estimates put the lost revenues from these made-in-Canada price discounts in the range of \$100-million a day. Think about that for a minute. That is \$3-billion a month in lost revenue to Canada’s economy.

We are selling our oil, primarily to refiners in the United States, at a fraction of what it would be worth if we had adequate pipeline capacity to reach these markets. Many Canadian oil producers are not covering their production costs at these prices and as losses mount, they will respond by cutting their capital spending programs, their work forces and their production.

Governments that typically benefit from the corporate income taxes and royalties associated with oil production are facing much lower revenues at a time when they are already under pressure to cut spending to deal with large deficits.

A number of factors have led to the current distressed situation. Several large oil sands projects have been completed after years of construction, adding more than 500,000 barrels a day of production as they reached full capacity.

This as several large U.S. refineries that normally process bitumen from the oil sands have been offline as they do maintenance, reducing demand by up to one million barrels a day. Court rulings delaying the construction of both the Trans Mountain Expansion and the Keystone XL pipeline have added to the negative sentiment. And storage in Alberta has filled up with few places left to physically put the oil.

Better pipeline access through the timely completion of the Trans Mountain Expansion and the Keystone XL pipeline are key to solving the problem. Governments need to improve the process for approvals to remove the uncertainty and delays that have been experienced.

But this will not help in the short term, as each of these pipelines is likely three years or more from completion. Increasing rail loading capacity is part of the solution, and it is expected that rail exports will grow from the recent level of 230,000 barrels a day to 400,000 barrels a day by next summer.

The imminent start-up of bitumen processing at the Sturgeon Refinery in Edmonton will help to absorb 50,000 barrels a day, and the return to full operation of the U.S. refineries once their maintenance is completed will restore an important part of the market.

But with storage so full and prices so low, it is unclear how long these changes will take to balance the market. Producers have begun to cut back their production, with announced reductions from seven producers of between 123,000 and 144,000 barrels a day according to a recent report from IHS Markit Insight.

Two paths forward are being proposed: have the Alberta government intervene in the market to reduce production by all producers in order to balance the market as quickly as possible; or let the market sort out the issue through further individual producer cutbacks.

Both paths have significant risks, and the Alberta government is analyzing them and looking for other options. Whatever the response, great care must be taken to avoid doing more harm than good.

When companies ask governments to intervene in a market place, it is a good indication that there are very serious issues that need to be dealt with.

The cancellations and delays of the major export pipelines that have happened over the past few years are now delivering the body blow that many in the oil industry have been warning about, and the longer-term implications for our country from this crisis are also likely to be significant for investment and for jobs.

Oil production in the United States grew by two million barrels a day in the past year, to reach more than 11 million barrels a day. Canada is losing vast amounts of revenue and shutting in its oil production while the rest of the world profits.

We need leadership to address the dysfunction of our situation so Canada can again be an attractive place to invest for one of our most important industries.

*Richard Masson is an executive fellow at the University of Calgary School of Public Policy
Special to The Globe and Mail
November, 2018*

Here's a pipeline route to tidewater Canada has never considered

Shipping oil across Hudson Bay over the top of Quebec and Newfoundland to the East Coast could be an option

As things stand today, new Canadian oil may never reach new markets. The Trans Mountain expansion to ship bitumen to the West Coast seems to be on indefinite hold. The prospects for an Energy East pipeline from Alberta to New Brunswick are even bleaker: they are non-existent. On top of Canada's export struggles the country also faces hostility over imports from Saudi Arabia, a country that the Trudeau government now says may not even be permitted to buy Canadian arms over reported human rights abuses, most recently highlighted by the apparent murder of a critic in its embassy in Turkey.

We could ship Canadian oil from Alberta to Hudson Bay to be picked up by tanker

Maybe it's time to look at another option, one that is environmentally sound and cost effective. Over the years, I have been involved in various capacities in the shipping business with an emphasis on shipping in the Arctic. This experience has led me to believe that there is an alternative to current plans. Canada could economically and safely ship oil from Alberta by pipeline to Hudson Bay, where it would be picked up by tanker for transport over the top of Quebec and Newfoundland and delivered to the East Coast — and ultimately the rest of the world.

Tankers can carry about 12 million barrels of oil per day.

There are challenges, but let's examine the whole case for a pipeline to Hudson Bay:

Environmental: A pipeline from Alberta to the west coast of Hudson Bay will cross numerous rivers and lakes, together with muskeg and permafrost. It is probably the most challenging part of the entire proposal. But are these impassible hindrances? Ask the Alaskans who have, for over 40 years, successfully operated an oil pipeline through a comparable environment.

Oil spills: Over the past decade ocean going "tankers" have carried an average of about 12 million barrels of oil per day and delivered 99.99 per cent of that without spillage. Yes, there have been some ghastly marine tanker incidents (in the largest tanker spill ever, the Atlantic Empress disgorged 400 million litres of crude oil off Trinidad in 1979; 10 years later, the Exxon Valdez spilled 170 million litres off Alaska). However, the noticeable trend is downwards: The last major marine spill was off Angola in 1991 (350 million litres). Why? Back then, tankers were "single hulled" — modern tankers must be "double hulled" and so are much harder to pierce.

Land-based costs: A Prairie pipeline with a throughput capacity of about 180 million barrels per year will require, I am told, a tariff of about \$2.25/throughput barrel/1,000 km to pay for capital and building costs. This translates into a tariff for a 1,400 km line from Alberta to Hudson Bay of about \$3.15/barrel. Add to that pumping, storage and terminal expenses which, it has been suggested to me, will run at about \$1.60 per barrel. Total cost before marine shipping: \$4.75 per barrel.

Shipping costs: Before my critics have stopped laughing at the notion of using ships to deliver oil from Alberta to New Brunswick, I remind them that Canada has the longest coastline of any nation on Earth and that Hudson Bay is part of that coastal reach. If the bay were not “icey” (as Sir John Franklin would call it) the tanker cost from Churchill to Saint John would be about \$1.60 per barrel. Add to that the \$4.75 per barrel in land costs detailed above, an “ice free” cost to deliver Albertan oil to New Brunswick by a pipeline-to-tanker system through Hudson Bay would be in the order of \$6.35 per barrel.

Of course, Hudson Bay can be icy in the winter, reverting to open water for the summer months. However, its ice is “first-year” salt-water ice, which is half the strength of “fresh water” ice, usually referred to as “multi-year” ice. (Salt water ice loses its salt content if it survives a summer melt.)

In the same way that tankers have evolved with better, safer hulls, some have recently been built to an “ice-class” (Polar Class 4), which provides adequate strength to operate safely through “first-year” ice. Such ships are, of course, more expensive to build and operate than conventional “blue water” ships. However, after allowing for these additional costs, tankers of 200,000-tonne capacity, built to PC4 class, will offer a freight cost of about \$3.60 per barrel from Hudson Bay to Saint John. This coupled with the aforementioned land costs gives a delivery cost of Alberta oil to Saint John of \$8.35 per barrel.

I realize that this argument avoids a multitude of associated issues such as the impossibility of using Churchill for vessels of this size. An alternative loading platform will have to be devised for operation in deep water. And the pipeline route from Alberta to Hudson Bay may not be as straightforward as I imply. On the other hand, there are advantages that I have not attempted to argue. Here’s one: A voyage from Hudson Bay to the U.K. is only one day longer than to Saint John, meaning that an additional tanker tariff of about 25 cents per barrel may be all that is required for direct delivery from Hudson Bay to a British buyer. To Houston might cost an additional \$1.65 per barrel.

This merely scratches the surface of the transportation challenge. A lot of work (including an analysis of the potential effect on wildlife) has to be done to prove or disprove this option. But, to my mind, an even more exciting aspect of the concept is the opportunity to find new markets for Canadian oil.

Michael H. Bell is a former senior vice-president of Fednav, a Canadian shipping consortium where he was in charge of Fednav’s Arctic operations and was involved with Petro-Canada in the Arctic Pilot Project to determine the safety and economics of Polar Class ice-breaking vessels operating in the Arctic year round.

*Special to Financial Post
October, 2018*



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2018 Upcoming Events

Board of Directors Meeting

January 18, 2019

OPI Boardroom

EPEX 2019: OPI 57th Conference and Trade Show

April 29-30, 2019

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