



# Ontario Petroleum Institute Inc.

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May 4, 2020

[bill.morneau@parl.gc.ca](mailto:bill.morneau@parl.gc.ca)

Hon. Bill Morneau  
Minister of Finance  
House of Commons  
Ottawa, Ontario K1A 0A6

Dear Minister Morneau,

## **Re: Ontario Orphan Well Reclamation Program**

The Ontario Petroleum Institute (OPI) wrote to you on April 13, 2020 appealing to you to develop a Federal Aid Program for the energy sector in response to the Coronavirus Disease (COVID-19) pandemic, and that a financial support package considers the needs of the Ontario oil and natural gas industry.

On April 17<sup>th</sup>, Prime Minister Justin Trudeau announced aid for the energy sector of \$1.7 billion to clean up orphan wells in Alberta, Saskatchewan, and British Columbia. The CBC reported that according to Finance Canada, there are about 4,700 orphan wells in Alberta, 600 in Saskatchewan and 350 in British Columbia.

Ontario having produced oil and natural gas since 1860 has thousands of orphan wells.

The OPI is writing to request the Government of Canada provide funding support for an Ontario Orphan Well Reclamation Program of **\$270 million** to reclaim orphan wells that pose environmental and safety hazards for landowners and the public. In addition, the program will maintain a viable service industry, create jobs, and support communities in Ontario.

The OPI has enclosed a proposal for a program to be delivered by an industry/government/public partnership. We would welcome the opportunity to speak with you and your officials on the proposal at your earliest convenience.

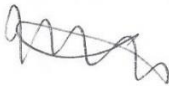
For more than 160 years Ontario's upstream oil and natural gas industry have contributed to the energy needs of residents and the economy of the province.

The OPI is committed to working with the Governments of Canada and Ontario to secure a sustainable future for a long-standing and historic industry where its first heartbeat in North America started in Southwestern Ontario in 1858.

The OPI would welcome the opportunity to speak with officials in your office to provide any further information required on our request for an Ontario Orphan Well Reclamation Program. Please provide us with the appropriate contact.

We look forward to your reply.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jim McIntosh". The signature is fluid and cursive, with a prominent initial "J".

Jim McIntosh  
Chairman

Cc Hon. Seamus O'Regan, Minister of Natural Resources  
Hon. John Yakabuski, Minister of Natural Resources and Forestry  
Hon. Greg Rickford, Minister of Energy, Northern Development and Mines  
Hon. Rod Phillips, Minister of Finance



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## **OPI Proposal to Establish an Ontario Orphan Well Program**

Prepared by the Ontario Petroleum Institute  
May 4, 2020

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## 1.0 Executive Summary

The Ontario Petroleum Institute (OPI) is the industry association ([www.ontariopetroleuminstitute.com](http://www.ontariopetroleuminstitute.com)) that represents the oil and natural gas exploration, production, and hydrocarbon storage industries in Ontario. Ontario has been producing oil since 1858, and natural gas production dating back to 1890.

The upstream sector, located entirely in Southwestern Ontario explores for oil and natural gas, drilling exploratory wells, and subsequently drilling and operating the wells that recover and bring the crude oil or raw natural gas to the surface.

For decades, this value-added industry has safely and sustainably produced millions of barrels of oil and billions of cubic feet of natural gas. The industry has made a valuable contribution to the province supplying energy, jobs and supporting the economic prosperity of communities throughout Ontario:

- \$77 million in direct oil and natural gas product revenues;
- annual investments of \$25 – 30 million in capital expenditures;
- 700 full time jobs in local Ontario communities;
- \$20 million in salary and wages;
- 1500 additional indirect jobs;
- \$7 million in annual royalties, and
- significant yearly municipal and corporate taxes

iFremeth, Adam. "Economic Profile of the Ontario Oil, Gas, and Salt Resources Industry"  
*Prepared for the Ontario Petroleum Institute. Richard Ivey School of Business, March 2014*

While the information needs to be adjusted to 2020 the table provides an understanding of the industry's annual contribution to the Ontario economy, particularly in Southwestern Ontario. It is important to note that in Ontario the mineral rights belong to the landowner except for Lake Erie where the Provincial Government is the landowner. Private ownership of mineral rights in southern Ontario has led to the unintended consequence of landowners being burdened with the liability of orphaned wells they cannot plug. In Alberta, the government owns the majority of the mineral rights.

The OPI recognizes the need to balance society's social, environmental, and economic values using responsible extraction techniques for the exploration, production and storage of Ontario's oil and natural gas resources.

Since 1858, thousands of oil and gas wells were drilled in Southwestern Ontario for commercial purposes as well as thousands of private natural gas wells for personal supply. The exact number of wells drilled in total for commercial production is unknown. What is on record is the location of 27,000 wells. Currently there are 2500 producing oil and natural gas wells. The remaining 24,500 fall into various categories: suspended, abandoned, or status unknown. Many of these suspended or status unknown wells are orphaned wells.

In response to the Novel Coronavirus Disease (COVID-19) Pandemic, and the Russian-Saudi Arabia oil price war that has drastically lowered oil prices the Federal Government announced on April 17, 2020 an aid program of \$1.7 billion to support the energy sector that included the clean-up of orphan wells in British Columbia, Alberta and Saskatchewan. Ontario was not included in the announcement.

Prior to the announcement the OPI wrote Finance Minister Bill Morneau asking that Ontario be included. It was followed by a letter to Ontario Minister of Natural Resources and Forestry (MNR), the Hon. John Yakabsuki, proposing a MNR/OPI in partnership for Ontario Orphan Well Reclamation Program funded by the Federal Government.

The Ontario industry is impacted, as are all sectors of the economy, by the health crisis brought on by COVID-19 pandemic and historically low oil and gas commodity prices. Companies are required to manage their operations through an extremely difficult period in the coming weeks and months to remain solvent, keep their businesses open, keep workers employed and support the communities in which they operate.

An Ontario program offers benefits to the public, government, and the industry:

- Addresses and reduces the hazards to public health and safety
- Safeguards the environment
- Assists landowners limit their liability
- Contributes to the Provincial Governments ability to regulate the industry
- Provide the industry with a bridge to a sustainable future

On providing the industry with a bridge to a sustainable future, Ontario oil and gas production has declined significantly over the last two decades for various reasons and to levels far lower than other jurisdictions across Canada. The industry remains committed to its future growth and a return to higher levels of activity. Ontario-produced energy provides a security of supply as well as benefits the environment compared to higher emissions from imported oil and natural gas. A vital component to ensure continued exploration and development of oil and natural gas in Ontario is a viable service industry. Ontario has an experienced service industry, one that is highly capable of fulfilling the requirements of this joint program. The work would keep their businesses available to develop a sustainable future for oil and natural gas exploration.

The OPI is proposing to be part of an Ontario Orphan Well Reclamation Program to be funded by the Federal Government. The initial scope of the program would be to prepare a business plan detailing:

- 1) The number of orphan wells and ranking of risks associated with each well
- 2) The service industry's capacity to reclaim wells each year
- 3) An estimate of the cost per well reclamation
- 4) Establishing a time frame for a program
- 5) The developmental costs to set-up and manage the program
- 6) The yearly administrative and support expenses

For more than 150 years Ontario producers have contributed to the energy needs of the province and its economic prosperity through annual royalties, jobs, salaries, wages, and taxes to support local communities.

## **2.0 Industry/Government/Stakeholder/Public Partnership**

The OPI is proposing that an Ontario Orphan Well Reclamation Program would operate under a governance structure with a partnership of appointees from but not limited to industry, government (federal, provincial and municipal), stakeholders (Indigenous community and agriculture), and the public.

The options for an organization include: (i) an independent body governed by a board of directors; or (ii) establish an entity as part of or similar to the Oil, Gas, and Salt Resources Trust that operates under a Trust Agreement with the Ontario Ministry of Natural Resources and Forestry and the Ontario Oil, Gas and Salt Resources Corporation, its sole shareholder being the OPI.

Administrative support to the Ontario Orphan Well Reclamation Program would be provided by the OPI.

## **3.0 Ontario Orphan Well**

An Ontario orphan well is defined as a well that has no current ownership by an oil and gas industry entity that cannot be located or has gone bankrupt or does not have the financial means to pay for proper decommissioning. There may be orphan wells that were decommissioned decades ago when plugging practices were rudimentary and there is no current operator to look after its future liability. In Ontario, all oil and gas wells are located upon privately owned lands therefore the orphan well has been left to the landowner as a potential liability.

## **4.0 Risk to Landowners and Public Health and Safety**

There is a risk to current landowners and to public health and safety where an orphan well encountered some type of fluid, either freshwater, sulphur water or oil, or any combination of these fluids, and/or natural gas during the drilling of the well and that the well was not properly plugged and abandoned. In some cases orphan wells will pose little to no risk to the current landowner or to public health and safety because the well did not encounter any type of fluid (water or oil) or natural gas upon penetration of the glacial sediments and underlying bedrock. These wells are essentially dry holes that the operator did not plug and abandon but remain potential conduits for the movement of contaminants. The expectation is that the operator of the well be responsible for its decommissioning and reclaiming the well site to its natural state.

## **5.0 Assessment of Orphan Wells**

### **5.1 Initial Assessment**

Wells that have not been plugged and abandoned according to the current Provincial Operating Standards v.2 circa 2002, which includes procedures for well construction and well plugging requirements, pose a threat to the current landowner and to public health and safety.

Wells that encountered some type of fluid or gas that have been left unplugged for an extended period may become a problem if they start to leak. The fluid and/or gas may build up in the well and then escape to the land surrounding the well. This can occur because of a poor seal between well casings, casing corrosion, damage at or near surface.

Where there is only one well casing, a fluid and/or gas may communicate with potable water zones located within the glacial sediments or shallow bedrock because of a poor seal between the well casing and the potable water zone or due to casing corrosion. Other examples of leaking wells may exist and their risk to the public and the environment will be evaluated during the tenure of this program.

### **5.2 Orphan Wells Posing Highest Risk**

Our original query into the Ontario Petroleum Database System recovered 6,700 wells that fall under our definition of an orphan well. From that total number of orphan wells there are 2,500 wells that encountered water and hydrocarbon, 1600 wells encountered hydrocarbon only, and 300 wells encountered some type of water. This brings the total number of wells that encountered some type of water or hydrocarbon that pose a potential risk to landowner and public health and safety to 4,400 wells.

### **5.3 On-going Assessment**

Professional geological and engineering consultants who possess a good working knowledge of the Ontario oil and gas industry will collaborate with the data resource personnel at the Oil, Gas and Salt Resources Library to provide a comprehensive and updated list of all orphan wells. An on-going risk assessment of all orphan wells will consider their potential for leakage and for communication with potable water zones. The list will be constructed and weighed within a data matrix that will rank all orphan wells according to degree of hazardous state and on the ability to locate these wells. In many cases orphan wells may not be visible above ground and their location below ground may require location using detection methods.

The list of orphan wells may be categorized as follows: 1) low risk potential, 2) has some potential for leakage or contamination with potable water zones, and 3) requires immediate attention due to a high risk of potential hazard to current landowner and the public health and safety. Upon completion of the data matrix and ranking of all orphan wells, a well plugging and abandonment and/or well site reclamation program will be created starting with the highest risk orphan wells.



In order to mitigate future orphan wells created by the current economic crisis, if an oil and gas producer in Ontario becomes financially unable to decommission their wells during the tenure of this program then their wells will be considered for the program. New orphan wells will be reviewed based upon the risk to landowner and public health and safety criteria set out by the administrative body.

## **6.0 Orphan Well Reclamation Costs**

There are 4,400 orphan wells that fall into a risk category to the current landowner and to public health and safety. The cost to access, plug and abandon (site reclamation) an orphan well in Ontario is estimated at around \$60,000. Therefore, the Ontario Orphan Well Reclamation Program will require an estimated \$270,000,000 to mitigate all future potential hazards posed by these wells.

## **7.0 Industry Capacity**

The current capacity of the Ontario oil and natural gas industry service sector to carry out an orphan well reclamation program is dictated by several factors. Ontario has multiple rig contractors that are currently certified for this specific purpose by the Ontario Ministry of Natural Resources and Forestry. Each rig can effectively plug and abandon 20 wells per year. With 4,400 orphan wells to be potentially reclaimed the program would run for a lengthy period of time.

## **8.0 Benefits of the Program**

The Ontario Orphan Well Reclamation Program is designed reduce the risk to public health and safety, safeguard the environment and remove the liability from the landowner. The industry is committed to managing a proactive program that is intended to identify and decommission high risk orphan wells. The program will maintain a viable service industry, create 500 jobs and support for as many as 40 businesses in communities across Ontario.

## **9.0 Funding Request for the Ontario Orphan Well Program**

The OPI propose that an Ontario Orphan Well Reclamation Program:

- 1) Be funded by the Government of Canada.
- 2) Establish an Industry/Government/Stakeholder/Public Partnership organization to govern and deliver the program.
- 3) That development and administrative financial support be provided for the term of the program.
- 4) That the funding be in the amount of **\$270 million** to reclaim **4,400** orphan wells.