



Indigenous and
Northern Affairs Canada

Affaires autochtones
et du Nord Canada

NORTHERN OIL AND GAS ANNUAL REPORT **2016**



Canada 



Northern Oil and Gas Annual Report 2016

FOREWORD

The *Northern Oil and Gas Annual Report* is prepared in accordance with section 109 of the *Canada Petroleum Resources Act* (CPRA) which notes:

The Minister shall, within ninety days after the end of each year, cause to be prepared a report with respect of the administration of this Act during that year, and shall cause the report to be laid before each House of Parliament on any of the first fifteen days on which that House is sitting after the day the report is prepared.

Federal responsibility for the management of oil and gas resources on Crown lands north of 60°N in the Northwest Territories, Nunavut and Northern offshore is administered by the Petroleum and Mineral Resources Management Directorate under the mandate of the CPRA by:

- Granting and managing Crown exploration and production rights;
- Administering the public register of northern petroleum interests and instruments;
- Governing rights issuance, the financial administration of interests, benefits, environmental considerations and royalty management.

Information about northern petroleum resource management regime and the program can be found at: www.aadnc-aandc.gc.ca/eng/1100100036087.



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**Message from the Honourable Carolyn Bennett, M.D., P.C., M.P.,
Minister of Indigenous and Northern Affairs**

I am pleased to table before Parliament the annual report on the administration of the *Canada Petroleum Resources Act* (CPRA) in the Northern offshore for the year ending December 31, 2016.

Northern Canada is home to approximately one-third of our country's remaining conventional light crude resources. While the region has great economic potential, we must work in collaboration with potentially affected northern communities, and in consultation with Indigenous peoples, to ensure prudent environmental stewardship and natural resources management.

As Minister of Indigenous and Northern Affairs, I am proud to have participated in a number of strategic northern initiatives this past year.

Budget 2016 introduced new funding for the five-year, Arctic Regional Environmental Studies initiative. This initiative, led by my department, aims to gather existing research and traditional knowledge of Canada's Arctic environment and conduct new research where gaps in knowledge exist. This work will ensure Inuit communities are engaged early in the decision-making around potential oil and gas activity in the Arctic.

In May, the Minister's Special Representative, Mr. Rowland Harrison, released his report, *Review of the Canada Petroleum Resources Act*. This review included an engagement process with Indigenous governments, organizations, stakeholders and other interested parties on how the Act can best contribute to responsible development of our offshore oil and gas resources.

I was also pleased to take part in the June announcement regarding a future marine conservation area in Lancaster Sound, Nunavut, one of the richest marine mammal areas in the world. This was made possible in part by the collaborative efforts of both Shell Canada and the Nature Conservancy of Canada in contributing towards Canada's marine protection goals. This is an excellent example of what we can achieve when we



all work collaboratively towards a common goal - industry, environmentalists, Indigenous Peoples, Northerners, and Canadians from all corners of this great country.

The Government of Canada has made a strong commitment to a science-based approach on oil and gas extraction in the Arctic. For example, the December 2016 United States-Canada Joint Arctic Leaders' Statement announced that Canada is designating all Arctic Canadian waters as indefinitely off limits to future offshore Arctic oil and gas licensing, to be reviewed every five years through a climate and marine science-based life-cycle assessment.

I am proud to confirm that this past year we have laid the groundwork for a comprehensive approach to ensure that conservation efforts support sustainable Arctic economies, strong communities and healthy environments, and this report provides further details on this work.

I invite you to consult this report for further details on the development of Canada's Northern oil and gas resources over the past year.

**The Honourable Carolyn Bennett, M.D., P.C., M.P.,
Minister of Indigenous and Northern Affairs**



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CANADA PETROLEUM RESOURCES ACT ACTIVITIES

CURRENT DISPOSITION OF INTERESTS

Indigenous and Northern Affairs Canada maintains a public registry of petroleum interests and instruments registered under Part VIII of the *Canada Petroleum Resources Act*. This registry is the official record of rights holders, and any transfer of rights or change of ownership must be registered. Monthly activity reports are available on: www.aadnc-aandc.gc.ca/eng/1100100036878.

There are three types of licences:

1. **Exploration Licence (EL)** - An exploration licence confers, with respect to the frontier lands to which the licence applies, the right to explore for, and the exclusive right to drill and test for, petroleum; the exclusive right to develop those frontier lands in order to produce petroleum; and the exclusive right, subject to compliance with the other provisions of this Act, to obtain a production licence.
2. **Significant Discovery Licence (SDL)** - A significant discovery licence confers, with respect to the frontier lands to which the licence applies, the right to explore for, and the exclusive right to drill and test for, petroleum; the exclusive right to develop those frontier lands in order to produce petroleum; and the exclusive right, subject to compliance with the other provisions of this Act, to obtain a production licence.
3. **Production Licence (PL)**- A production licence confers, with respect to the frontier lands to which the licence applies, the right to explore for, and the exclusive right to drill and test for, petroleum; the exclusive right to develop those frontier lands in order to produce petroleum; the exclusive right to produce petroleum from those frontier lands; and title to the petroleum so produced.

The following figures and tables detail current exploration licences, significant discovery licences and exploratory permits in place as of December 31, 2016.

**Table 1: Exploration Licences as of December 31, 2016.**

Licence	Area (in hectares)	Representative	Effective Date	End of Period 1 ¹	Expiry Date	Work Proposal Bid (in dollars) ²
Beaufort Sea						
EL317 ³	175,810	Repsol Oil & Gas Canada Inc.	5 Oct 1986	N/A	N/A	N/A
EL329 ³	339,434	BP Canada Energy Development Company	5 Sep 1987	N/A	N/A	N/A
EL476	205,321	Imperial Oil Resources Venture Limited ⁴	1 Sep 2012	31 Jul 2017	31 Jul 2019	585,000,000
EL477	202,380	Imperial Oil Resources Venture Limited ⁴	1 Sep 2012	30 Sep 2018	30 Sep 2020	1,180,100,000
EL478	205,359	BP Exploration Operating Company Limited	1 Sep 2012	30 Sep 2018	30 Sep 2020	15,100,000
EL479	203,635	BP Exploration Operating Company Limited	1 Sep 2012	30 Sep 2018	30 Sep 2020	1,100,000
EL481	205,946	Chevron Canada Limited	1 Sep 2012	31 Aug 2019	31 Aug 2021	103,300,000
EL483	196,497	ConocoPhillips Canada Resources Corp.	1 Sep 2012	30 Sep 2018	30 Sep 2020	2,543,896
EL485	120,814	Franklin Petroleum Canada Limited	1 Sep 2012	31 Aug 2019	31 Aug 2021	1,000,000
EL488	134,142	Franklin Petroleum Canada Limited	6 Mar 2013	5 Mar 2020	5 Mar 2022	1,251,088
EL489	93,483	Franklin Petroleum Canada Limited	6 Mar 2013	5 Mar 2018	5 Mar 2022	1,251,088
EL491	201,101	Franklin Petroleum Canada Limited	6 Mar 2013	5 Mar 2020	5 Mar 2022	1,251,088
EL492	187,200	Franklin Petroleum Canada Limited	6 Mar 2013	5 Mar 2020	5 Mar 2022	1,251,088
EL493	190,650	Franklin Petroleum Canada Limited	6 Mar 2013	5 Mar 2020	5 Mar 2022	1,251,088
EL496	47,945	Franklin Petroleum Canada Limited	1 Jun 2014	31 May 2021	31 May 2023	1,000,000

¹ Period 1 may be extended by means of a drilling deposit or through amendment to the licence.

² Work Proposal Bids rounded to the nearest dollar.

³ Under work prohibition order P.C. 1987-2265 pursuant to section 12 of the *Canada Petroleum Resources Act*.

⁴ As of January 1, 2017, the company changed its name to Imperial Oil Resources Limited.

**Table 2: Land Disposition as of December 31, 2016.***In hectares*

Region	Exploration Licence	Significant Discovery Licence	Production Licence	Former Rights ¹	Total
Arctic Islands of Nunavut	0	327,981	0	0	327,981
Eastern Arctic Offshore	0	11,184	0	0 ²	11,184
Hudson Bay	0	0	0	126,376	126,376
Beaufort Sea	2,709,717	224,623	0	0	2,934,340
Norman Wells Proven Area	0	0	0	654	654
Total	2,709,717	563,788	0	127,030	3,400,535

By Interest Type (number of licences)

Region	Exploration Licence	Significant Discovery Licence	Production Licence	Former Rights ¹	Total
Arctic Islands of Nunavut	0	20	0	0	20
Eastern Arctic Offshore	0	1	0	0 ²	1
Hudson Bay	0	0	0	8	8
Beaufort Sea	15	48	0	0	63
Norman Wells Proven Area	0	0	0	6	6
Total	15	69	0	14	98

¹ Permits and/or leases issued under former legislative regimes and continued in force pursuant to subsection 112(2) of the *Canada Petroleum Resources Act*.

² On June 7th, 2016, 30 offshore exploration permits in the Lancaster Sound/Baffin Bay region were surrendered.



Figure 1 - Map of the Beaufort Sea Region

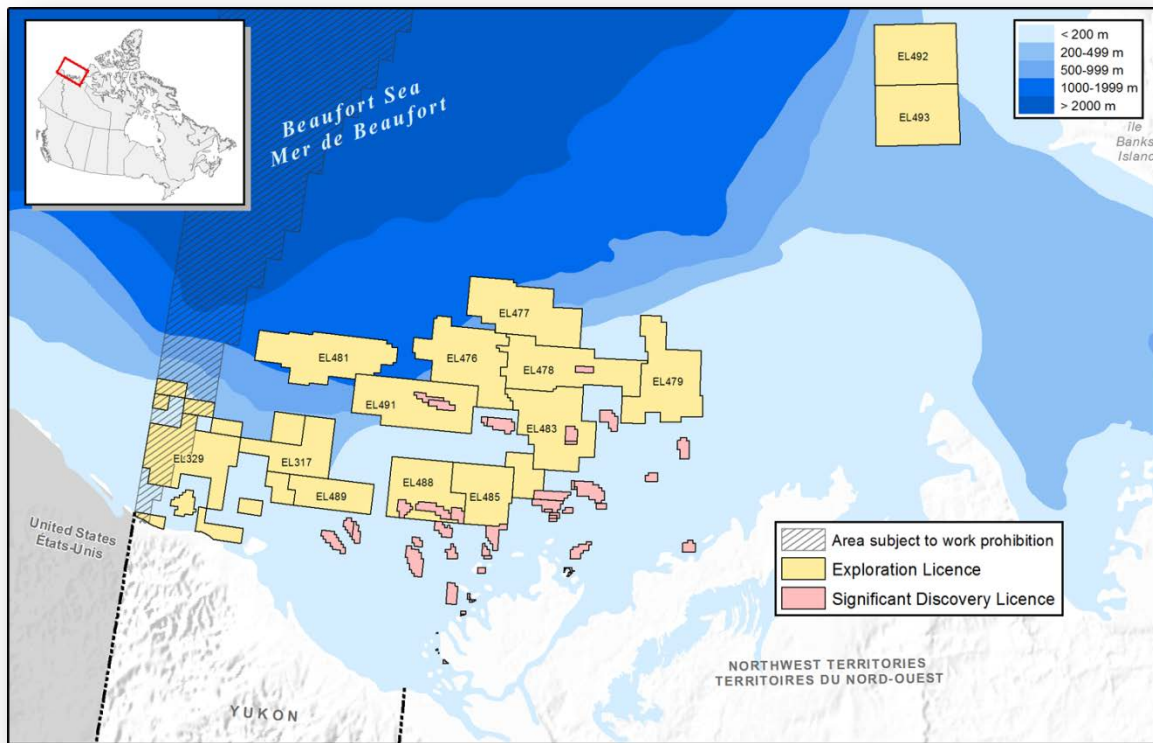
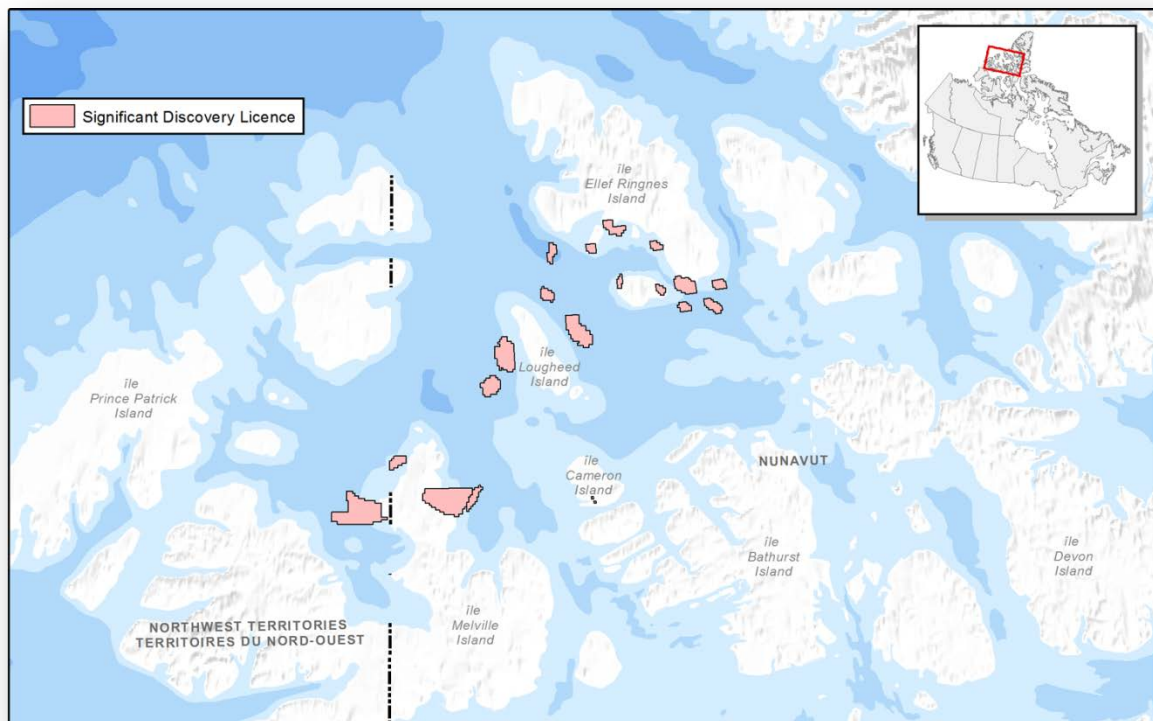
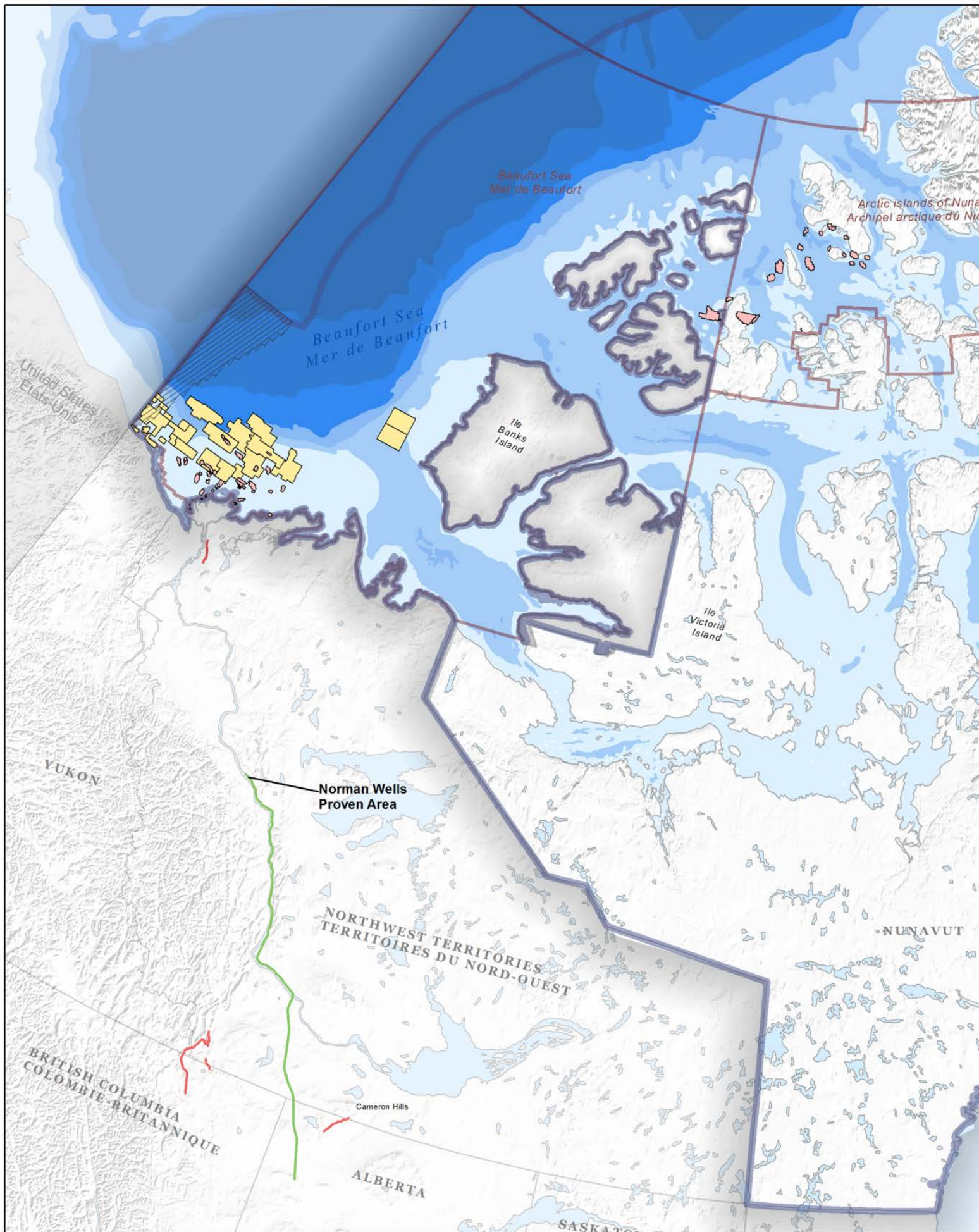


Figure 2 - Map of the Arctic Islands Region





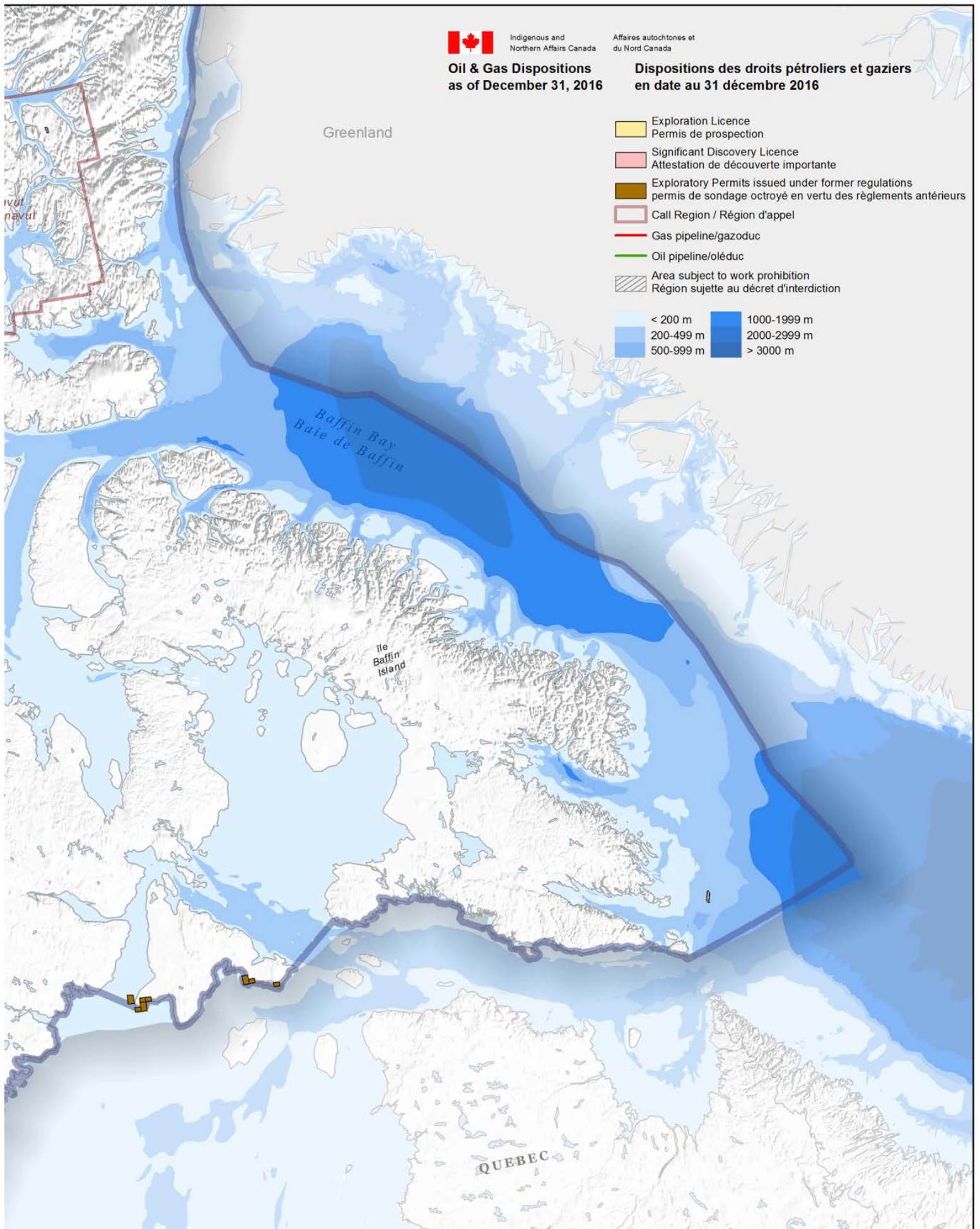


Indigenous and
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Oil & Gas Dispositions as of December 31, 2016

Dispositions des droits pétroliers et gaziers en date au 31 décembre 2016



**Figure 3 - Map of the Eastern Arctic Region**

REVIEW OF THE *CANADA PETROLEUM RESOURCES ACT*

On May 30th, 2016, Ministerial Special Representative, Rowland Harrison, QC, completed his mandate to review the *Canada Petroleum Resources Act* by submitting a comprehensive assessment of the Act to Minister Carolyn Bennett.

In his review, Mr. Harrison concluded that the Act has been successful in instituting a rights issuance system that is market-driven, is responsible to industry interest and provides security of tenure and meets the needs of Canadians and industry. However, the report also provided ten recommendations on how the Act could be better clarified and improved from its current state.

The report was made public on August 8th, 2016 and can be found at:

www.aadnc-aandc.gc.ca/eng/1468946906852



UNITED STATES-CANADA JOINT ARCTIC LEADERS' STATEMENT

As part of the *United States-Canada Joint Arctic Leaders' Statement* issued on December 20th, 2016, Prime Minister Justin Trudeau announced that Canadian Arctic waters are indefinitely off limits to new offshore oil and gas licences. The moratorium of oil and gas activity in the Arctic will be tested every five years by a science-based, life-cycle assessment, taking into account marine and climate change science.

This action is in line with Canada's aim to collaborate with Arctic partners to work towards a common vision of Canada's Arctic and co-develop a new Arctic Policy Framework that integrates domestic and international policy objectives.

The Government of Canada is planning a 1-year consultation with existing offshore oil and gas rights holders and other interested parties to discuss their interests in the Arctic offshore and plans for the future.

Existing exploration licence expiry dates will remain in effect while the Government of Canada undertakes this consultation process.

Further information about the Joint Arctic Leaders' Statement may be found at:

www.aadnc-aandc.gc.ca/eng/1482262705012

RIGHTS ISSUANCE

Call for Nomination and Call for Bids

With respect to the *United States-Canada Joint Arctic Leaders' Statement* from December 20, 2016, Canada has indefinitely suspended the issuance of new oil and gas licences in the Arctic offshore for an initial period of five years during which no Call for Bids will take place.

The suspension will be reviewed every five years through a climate and marine science-based life-cycle assessment and does not apply to the onshore areas of Nunavut.

As of December 31st, 2016, there are 15 exploration licences in the Beaufort Sea and the primary rights holders include Imperial Oil, BP, ExxonMobil, ConocoPhillips and Franklin Petroleum.

FINANCIAL ADMINISTRATION OF INTERESTS

Pursuant to the terms of conditions of exploration licences pursuant to section 24(1) of the *Canada Petroleum Resources Act*, the Department holds financial security deposits with respect to exploration licences; these deposits are refundable to interest holders under certain conditions. Revenues from the administration of interests include three sources in general: forfeitures, non-refundable rentals, and fees.



Forfeitures

Following a Call for Bids for exploration licences, successful bidders are required to post 25% of the work proposal bid as security against the performance of work. This deposit is referred to as the work deposit. The work deposit is refundable as expenditures are incurred within Period 1 of the licence term. Since work deposits represent 25% of the total work proposal bid, refunds are likewise prorated on the basis of 25% of the allowable expenditures incurred. Any work deposit balance remaining at the end of Period 1 is forfeited.

In order to meet the work requirement, Period 1 may be extended yearly by posting a drilling deposit (currently one million dollars) before the end of the last year of Period 1. A drilling deposit will be refunded in full if the licence is validated by the drilling of a well as required to obtain tenure for Period 2. If a validation well is not drilled or has not begun within the one year extension, the drilling deposit will be forfeited upon the termination of the licence at the end of Period 1. In 2016, the forfeiture revenue was \$ 509,599.

Rentals

Period 2 of an exploration licence carries rental obligations. Period 2 rentals are also refundable as expenditures and are incurred at the rate of one dollar refund for one dollar of allowable expenditure. The Department also collects non-refundable rentals from the Norman Wells Proven Area leases. These are payable annually, in advance of the anniversary date of the leases. In 2016, the rental revenue was \$933.

Fees

Pursuant to section 15 of *Frontier Lands Registration Regulations*, various fees for services are payable, such as the issuance of new exploration licences, registration of instruments or provision of copies of abstracts. Table 3 outlines revenues from administration of interests in 2016. In 2016, the revenue from issuance fees and fees for service was \$2,708.

Table 3: Revenues from Administration of Interests, 2012-2016

	2012	2013	2014	2015	2016
Forfeitures ¹	1,631,597	50,000	599,830	0	509,599
Non-refundable rentals ²	53,195	53,195	11,219	933	933
Fees ³	43,497	8,832	5,520	1,569	2,708
Total	1,728,289	112,027	616,569	2,502	513,240

¹ Forfeiture revenues result when the conditions associated with bid deposits, drilling deposits, work deposits or rentals are not met.

² Norman Wells Proven Area leases issued under the *Canada Oil and Gas Land Regulations* which are continued in force pursuant to subsection 114(4) of the *Canada Petroleum Resources Act*.

³ Issuance fees and fees for service (section 15 of the *Frontier Lands Registration Regulations*).



BENEFITS

Subsection 5.2 of the *Canada Oil and Gas Operations Act* and section 21 of the *Canada Petroleum Resources Act* require that a benefits plan be approved by the Minister of Indigenous and Northern Affairs before authorization of any oil and gas work or activity, or approval of a development plan relating to a pool or field on Frontier Lands in Nunavut, the Northwest Territories, and in the Arctic offshore.

A benefits plan represents a documented commitment by a company to provide employment to Canadians and full and fair opportunity to Canadian businesses. A benefits plan should include a detailed description of the proposed project as well as the major components, activities and milestones; supporting maps, tables and figures; and time frames. As such, benefits plans ensure that exploration and development activities create training and employment for the local and regional labour force and opportunities for local and regional businesses to provide goods and services.

In particular, the companies are encouraged to give first consideration to local northern Indigenous and other northern residents and businesses.

In 2016 no benefits plans were submitted as no exploration activity was conducted in Frontier Lands under INAC jurisdiction.

ENVIRONMENTAL CONSIDERATIONS

Budget 2016 provided funding to Indigenous and Northern Affairs Canada to collaborate with researchers and Inuit communities in order to gather new knowledge of the Arctic environment, to help assess the potential environmental impacts of future offshore oil gas activity in the Arctic, and to inform whether offshore oil and gas activity should proceed in Arctic regions of Canada.

Strategic Environmental Assessment (SEA) initiatives funded through the *Budget 2016* announcement will inform a key part of the Government's five year science-based review (as mentioned in the *Canada-US Joint Arctic Leaders' Statement*).

Beaufort Regional Strategic Environmental Assessment

The Beaufort Regional Strategic Environmental Assessment (BRSEA) launched in 2016. The BRSEA will provide strategic direction and analysis of environmental considerations pertaining to future offshore oil and gas activity in the Beaufort Sea, Inuvialuit Settlement Region.

The BRSEA examines the cumulative effects of forecasted development and conservation scenarios; sets desired environmental outcomes and thresholds; addresses regional policy and regulatory issues; and takes into account trade-offs and changes in the state of the ecosystem.



The BRSEA is being developed and led in partnership between the Inuvialuit Regional Corporation, the Inuvialuit Game Council, and Indigenous and Northern Affairs Canada.

Strategic Environmental Assessment in Baffin Bay and Davis Strait

In addition to the BRSEA, a SEA in Baffin Bay and Davis Strait was initiated in 2016. The SEA will rely on existing research and Indigenous knowledge to assess the potential environmental, social, economic, and cultural impacts of possible future offshore oil and gas activities in the region.

In 2016, Indigenous and Northern Affairs Canada worked closely with the SEA partners, including the Nunavut Impact Review Board, the Qikiqtani Inuit Association, Nunavut Tunngavik Incorporated and the Government of Nunavut to refine the scope of the SEA.

Environmental Studies Research Fund

The Environmental Studies Research Fund (ESRF) is a provision of Part VII of the *Canada Petroleum Resources Act*, and is funded through levies applied to oil and gas lands held by companies under licence. The research program sponsors environmental studies related to the exploration, development and production of oil and gas resources on Frontier Lands. The 2016 - 2017 budget for the North approved by the Minister, based upon the recommendations of the ESRF Management Board, was \$750,000.

The following northern projects were ongoing in 2016: *Experimental Spill to Research Spill Treating Agent Use in the Beaufort Sea: Preparation for a Detailed Experimental Plan; Integrated Beaufort Observatory; and Quantitative Assessment of the Interaction between Beaufort Sea Crude Oil and Suspended Sediments.*

Details on ESRF, including annual reports and publications can be found at www.esrfunds.org

ROYALTY MANAGEMENT

Part VI of the *Canada Petroleum Resources Act* governs the setting and collecting of royalties in respect of petroleum produced from Frontier Lands. The *Frontier Lands Petroleum Royalty Regulations* prescribe the royalty rates, the calculation, reporting and associated interest or penalties.

Two fields produced oil and/or gas in the Northwest Territories in 2016: the Ikhil gas field on the Mackenzie Delta and the Norman Wells oil field in the Central Mackenzie Valley. There are no producing fields in Nunavut or in offshore Arctic waters.

The Ikhil gas field lies on Inuvialuit Lands and continues to be administered by Canada on behalf of the Inuvialuit pursuant to Section 7(94) of the *Inuvialuit Final Agreement*. Canada's responsibility to collect and remit royalties to the Inuvialuit continues after April 1, 2014,



pursuant to the terms of the *Northwest Territories Land and Resource Devolution Agreement*. These royalties are not reported here.

Pursuant to the *Northwest Territories Land and Resource Devolution Agreement*, the Norman Wells Proven Area remains under federal jurisdiction. INAC continues to collect petroleum royalties associated with the Norman Wells Proven Area and remits such royalties to the Government of the Northwest Territories.

With effect from April 1, 2014, the Government of the Northwest Territories (GNWT) is responsible for the royalty collection and regulation of onshore oil and gas activities in the NWT outside of the Inuvialuit Settlement Region (ISR) and the Norman Wells Proven Area. Accordingly, petroleum royalties for onshore projects are retained by the GNWT.

Given that there are no producing fields in Nunavut or in offshore Arctic waters, the amount of offshore royalty received by Canada, after devolution, in the 2016 calendar year is \$0.



FOR FURTHER INFORMATION

PETROLEUM AND MINERAL RESOURCES MANAGEMENT DIRECTORATE

To obtain further information, please contact the Directorate by phone or in writing.

Mailing address:

Petroleum and Mineral Resources Management Directorate
Indigenous and Northern Affairs Canada
10 Wellington Street
Gatineau QC K1A 0H4

Telephone: 819-953-2087

Fax: 819-953-5828

Website: www.aadnc-aandc.gc.ca/eng/1100100036087

Information on licence registration procedures and regulations, transfers and notices:

Registrar – Telephone: 819-639-7318

Information on Petroleum and Mineral Resources Directorate maps, and geographic information system (GIS) data: Geomatics Officer – Telephone: 819-639-7481

Information on northern exploration history and geological/geophysical activities:

Petroleum Geologist – Telephone: 819-639-7320

Information on royalty policy and royalty submissions:

Petroleum Royalties Advisor – Telephone: 819-639-7460

Information on Benefits Plan requirements for Nunavut and Northern offshore:

Economic Analyst – Telephone: 819-934-2244



OTHER SOURCES OF INFORMATION

National Energy Board

The Operations Business Unit regulates the exploration, development and production of hydrocarbon resources in non-Accord Frontier Lands under the *Canada Petroleum Resources Act*, the *Canada Oil and Gas Operations Act*, and the *National Energy Board Act*.

The Frontier Information Office provides access to maps, technical information, geological and geophysical reports, well history reports and records.

National Energy Board
517 Tenth Avenue SW
Calgary AB T2R 0A8
Toll Free: 1-800-899-1265
Website: www.neb.gc.ca

Geological Survey of Canada

The Geological Survey of Canada Calgary provides public viewing and sampling facilities for cores and samples, and information on wells drilled north of 60 at its offices at:

Geological Survey of Canada—Calgary
3303-33rd Street NW
Calgary AB T2L 2A7
Telephone: 403-292-7000
Website: www.nrcan.gc.ca/earth-sciences/science/geology/gsc/17100

Information on geosciences in the Baffin Bay – Davis Strait region is available from:

Geological Survey of Canada—Atlantic
Bedford Institute of Oceanography
1 Challenger Drive, PO Box 1006
Dartmouth NS B2Y 4A2
Website: www.bio.gc.ca

