Onshore Oil and Gas Regimes in Atlantic Canada:

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The focus of oil and gas development in the Atlantic region has for many years been on the offshore areas. However, there is active exploration and some production onshore, and it is likely that interest and investment will increase in this sector in coming years. This paper considers the legislative regimes for onshore oil and gas development in the Atlantic provinces—including tenure arrangements, surface access issues, operational regulation, pooling and unitization provisions, royalties and abandonment and liability—with comparisons to schemes applicable in western Canada. The existing legislative regimes in the Atlantic region date back many years, and are likely to be the focus of further attention and reform as this sector continues to develop.

Depuis de nombreuses années, l'exploitation des ressources en hydrocarbures dans la région atlantique s'est faite surtout dans la zone extracôtière. Il se fait toutefois de l'exploration et une certaine production sur la terre ferme, et il est probable que tant l'intérêt que les investissements dans ce secteur augmenteront au cours des prochaines années. Cet article examine les régimes législatifs applicables à l'exploitation des ressources en hydrocarbures sur la terre ferme dans les provinces atlantiques—notamment la tenure foncière, les questions d'accès à la surface, la réglementation opérationnelle, les dispositions sur la mise en commun et le regroupement, les redevances, l'abandon et la responsabilité —et les compare à ceux qui s'appliquent dans l'Ouest du Canada. Les régimes législatifs en vigueur dans la région atlantique, qui remontent à de nombreuses années, sont susceptibles de retenir l'attention et de faire l'objet de réformes à mesure que le secteur des hydrocarbures continue à se développer.

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Introduction

Some of the earliest oil and gas exploration and production in Canada occurred in the Atlantic provinces. In 1859, one of the first oil wells in Canada was drilled "near the village of Dover," New Brunswick,\(^1\) only a year or two after the Williams No. 1 well was drilled at Oil Springs, Ontario, which is considered by many to be the earliest oil well in North America.\(^2\) There was also some limited exploration and production in Nova Scotia and on the island of Newfoundland in the late nineteenth and early twentieth centuries.\(^3\) These early efforts, however, were quickly overshadowed by the far larger and more prolific fields of first Southern Ontario and then Western Canada. For decades there was virtually no

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onshore oil and gas production and only sporadic exploration in the Atlantic provinces.\(^4\) Now, however, with conventional oil production in Western Canada declining, and the incredible technological changes in the oil and gas industry in recent years, the industry has become able to unlock unconventional oil and gas, and produce from deeper and more complex reservoirs that were previously unknown, inaccessible, or uneconomic to produce. Currently, there is ongoing production in New Brunswick and active exploration programs in the onshore areas of all of the Atlantic provinces. Each of the Atlantic provinces currently has legislation in place to address oil and gas exploration and production. These regimes, however, were mostly put in place decades ago and have not benefited from being tested and refined in the course of large scale oil and gas activities. In this paper, we will examine the major features of the current legal regimes governing onshore oil and gas exploration and production in each of the four Atlantic provinces, point out some important differences between the Atlantic Canada regimes and the more familiar regimes of Western Canada, and offer some thoughts on potential gaps that may need to be addressed if oil and gas exploration and production expands in the Atlantic provinces.

I. Jurisdictional complexities

The constitutional divide between federal jurisdiction over oil and gas activities in the offshore and provincial jurisdiction over onshore oil and gas activities was, for the most part, settled in the offshore references considered by the Supreme Court of Canada in the 1980s.\(^5\) It was made clear in the *Strait of Georgia Reference* that there can be offshore areas which fall within a province.\(^6\) As a result, oil and gas activities that take place in such offshore areas may be controlled by the coastal province, both as resource owner and as regulator, even though they take place in the offshore. For example, consistent with the analysis set out in the *Strait of Georgia Reference*, the Bay of Fundy is part of Nova Scotia (the southern half), and New Brunswick (the northern half) because it was included in the description of the provinces when they were separated from each other.

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4. Relatively modest volumes of oil and gas were produced in New Brunswick during much of the twentieth century. See C St Peter, *supra* note 1 for a history of oil and gas activities in New Brunswick, and the Canadian Association of Petroleum Producers, “New Brunswick—Canadian Association of Petroleum Producers,” online: Canadian Association of Petroleum Producers <http://capp.ca/CANADAINDUSTRY/INDUSTRYACROSSCANADA/Pages/NewBrunswick.aspx#EiEmnrqDrFGa>.

5. Reference Re Newfoundland Continental Shelf, [1984] 1 SCR 86; Canada (AG) v British Columbia (AG), [1984] 1 SCR 388, (sub nom Reference Re Ownership of the Bed of the Strait of Georgia and Related Areas) [Strait of Georgia Reference].

in 1784. Likewise, Baie des Chaleurs in northern New Brunswick was included in the same description of New Brunswick (a British colony at the time). Adopting the reasoning of the Supreme Court of Canada in the Strait of Georgia Reference, other bays and marine areas included in the description of the provinces in their constitutive documents at the time they were created as colonies will also likely be considered to be part of the province. Thus, the coastal province will play an important (and likely primary) role as the oil and gas resource owner and regulator in marine areas falling within the province. Because of the federal government's constitutional jurisdiction over matters such as shipping, navigation, and fisheries, as set out in section 91 of the Constitution Act, 1867, however, the federal government would likely still play an active role in regulating oil and gas activities that take place within such marine areas. Thus in this paper we focus only on onshore oil and gas activities, and simply point out the jurisdictional complexities that are likely to arise in connection with any oil and gas activities that take place in offshore areas that are within the boundaries of a province.

II. Nature of the regulator

None of the Atlantic provinces has an independent upstream oil and gas regulator comparable to the Energy Resources Conservation Board in Alberta or the Oil and Gas Commission in British Columbia. Currently, oversight of upstream oil and gas activities in each of the Atlantic provinces rests with a government department, and ultimately with the minister that heads that department. This is not surprising since the modern upstream oil and gas industry is very much in its infancy in Atlantic Canada.

A regulator that is arm's length from government has the benefit of being isolated from political concerns. It is often perceived as being more impartial and more able to focus on its assigned industry than a government department, which will usually have a number of mandates and priorities that it must attend to. Many jurisdictions with active oil and gas industries have such an independent regulator, staffed by technical experts with experience in the upstream oil and gas industry.

In Atlantic Canada, currently, a number of government departments and agencies, in addition to the department having primary responsibility

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8. Walsh, supra note 7.
9. Strait of Georgia Reference, supra note 5 at para 68.
for the oil and gas industry, will play an important role in reviewing and approving oil and gas activities. For example, departments of environment or local governments may need to be consulted or grant approvals in order for oil and gas activities to be undertaken. This is in contrast to some jurisdictions with developed oil and gas industries, where steps have been taken to adopt a “one window” regulatory approach. In addition, requirements related to the Crown’s duty to consult with First Nations\textsuperscript{11} may be triggered by certain government decisions or actions related to exploration and development projects. It is, therefore, important for the various government departments to coordinate their different regulatory mandates to avoid duplication of efforts, delay, and inefficient use of government and industry resources. The parameters of this paper do not allow for fuller discussion of the requirements of the ancillary departments, or the nature of the duty to consult with First Nations, but companies contemplating operations in Atlantic Canada should understand the multi-departmental interplay currently involved in carrying out oil and gas projects in the region.

In the event that upstream oil and gas activities increase in one or more of the Atlantic provinces, both government and the industry would benefit if an independent arm’s length provincial regulator for the industry were established in such province, with a staff of technical experts who were experienced in the industry, and the regulator was given the jurisdiction to act as a “one window” regulator for most upstream oil and gas activities.

III. Ownership in situ
The ownership of oil and gas in situ is addressed in each of the oil and gas statutes in Atlantic Canada.

\textsuperscript{11} The duty is discussed in the seminal cases of \textit{Haida Nation v British Columbia (Minister of Forests)}, 2004 SCC 73, [2004] 3 SCR 511; and \textit{Taku River Tlingit First Nation v British Columbia (Project Assessment Director)}, 2004 SCC 74, [2004] 3 SCR 550. Discussion regarding its application in Atlantic Canada is beyond the scope of this paper. In this instance, the “Crown” could potentially refer to either or both the Crown in right of a province or in right of Canada; throughout the rest of the paper, reference to the Crown shall mean in right of the provinces or a specific province being discussed unless otherwise specified.
1. **Nova Scotia**

In Nova Scotia, all petroleum\textsuperscript{12} "is and is deemed always to have been vested" in the Crown in right of the Province, and every grant of land by the Crown is to be construed to have reserved to the Crown all petroleum in such lands.\textsuperscript{13}

2. **New Brunswick**

In New Brunswick, all oil and natural gas\textsuperscript{14} is deemed to be, and to have been at all times vested in the Crown in right of the province and is considered "property separate from the soil."\textsuperscript{15}

3. **Prince Edward Island**

In Prince Edward Island, all oil and natural gas is deemed to be vested in the Crown in right of the province, notwithstanding any "grant of mines or minerals" or any other "deed or conveyance." In addition, and notwithstanding any other law, oil and gas and any "right in relation thereto" are not capable of alienation except as provided by the \textit{PEI Oil Act}, and any Crown land grants made after the coming into force of the \textit{PEI Oil Act} are to be construed to reserve all oil and natural gas to the Crown.\textsuperscript{16}

\textsuperscript{12} "Petroleum" is defined in the \textit{Petroleum Resources Act}, RSNS 1989, c 342, s 2(e) \textit{[NS Petroleum Act]} as follows: "in addition to its ordinary meaning, any mineral oil or relative hydrocarbon and any natural gas, including coal gas, existing in its natural condition in strata, but does not include coal or bituminous shales or other stratified deposits from which oil can be extracted by destructive distillation." This inclusive definition can be contrasted to the definition of petroleum set out in the seminal Western oil and gas case, \textit{Borys v Canadian Pacific Railway}, [1953] 1 All ER 451, [1953] 2 DLR 65, PC(UK), where the Judicial Committee of the Privy Council agreed with the lower courts that petroleum and gas are separate substances, giving rise to split title to oil and gas in large portions of central Alberta, and no end of difficulties and litigation for freehold lessors and lessees. Unless Nova Scotia licenses oil and gas in the same land to separate parties (which is unlikely), the difficulties arising from split title experienced in Alberta should not occur in Nova Scotia.

\textsuperscript{13} \textit{NS Petroleum Act}, supra note 12, s 10(1).

\textsuperscript{14} Under the \textit{Oil and Natural Gas Act}, SNB 1976, c O-2.1, s 1 \textit{[NB Oil Act]}, "oil" means "all crude petroleum oil, coal oil and mineral oil, which substances may be contaminated with sulphur compounds, and which in their natural viscous state are recovered or are recoverable at a well from an underground reservoir in liquid form"; "natural gas" means "all natural gas and associated hydrocarbon and non-hydrocarbon fluids that are not defined as oil and includes hydrogen sulphide." Under the \textit{Petroleum Act}, SNB 2007, c P-8.03 \textit{[NB Petroleum Act]}, "petroleum" is defined as "oil or natural gas, or both." The comment at note 12 would seem to apply equally to the use of the term "petroleum" in the \textit{NB Petroleum Act}.

\textsuperscript{15} \textit{NB Oil Act}, supra note 14, s 3. Under the \textit{NB Petroleum Act}, identical language regarding ownership is used, but with reference to "petroleum," rather than "oil and natural gas." While the \textit{NB Petroleum Act} was assented to in 2007 and provides for the repeal of the \textit{NB Oil Act}, it has not been proclaimed in force (see the discussion at Part X.2 below).

\textsuperscript{16} \textit{Oil and Natural Gas Act}, RSPEI 1988, c O-5, s 3 \textit{[PEI Oil Act]}.
4. **Newfoundland & Labrador**

In Newfoundland and Labrador, petroleum is deemed to be separate from the soil where it exists and is also deemed to be vested in the Crown in right of the province. An exception to this is petroleum or any "right, title or interest in petroleum which, before 15 April 1965, was expressly assured to a person other than the Crown" by a provincial statute which is still in force or by a "valid and subsisting deed, lease, licence or other instrument made under or ratified" by a provincial statute. Privately owned petroleum may become the subject of a permit or lease (as "undeveloped petroleum") if the land where it is located is declared by the Lieutenant-Governor in Council to be a development area.

5. **Commentary.**

Since, for the most part, oil and gas are deemed to be vested in the Crown in right of the province in Atlantic Canada, there are likely to be very few situations in which there are freehold owners of oil and gas in the region. This is in stark contrast to the situation in Alberta where land, in the late nineteenth and early twentieth centuries, was conveyed by the Crown without reserving the oil and gas. Much of the common law of oil and gas that has developed in Alberta has evolved in the context of freehold oil and gas leases, and therefore may not always be applicable or relevant in a regime where oil and gas is owned by the province. For example, the rule of capture, and possibly the implied right of a mineral rights holder to enter on surface lands for the purpose of exploring and exploiting the minerals would appear to be closely linked to freehold ownership of oil and gas. Such common law concepts developed in Alberta may not apply in a jurisdiction where oil and gas is owned in situ by the province. Care will have to be taken in attempting to apply such concepts in Atlantic Canada to ensure that they are appropriate in the fundamentally different oil and gas ownership regimes in the region.

Ownership of oil and gas by the province also has a potential upside. Negotiating, obtaining and maintaining oil and gas rights may be somewhat easier in such regimes, as there is, for the most part, only one owner of such rights, i.e. the province. Early actors may encounter some challenges.

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17. *Petroleum and Natural Gas Act*, RSNL 1990, c P-10, s 2(j) [*NL Petroleum Act*] includes oil and gas. The comment at note 12 (supra) would seem to apply equally to the use of the term "petroleum" in the *NL Petroleum Act*.
21. With the possible exception of petroleum rights granted or assured by the Crown in Newfoundland & Labrador prior to 15 April 1965 (see Ownership In Situ in Newfoundland and Labrador, above).
in dealing with provincial governments that do not have significant experience in oil and gas matters. Once some institutional experience is developed by the provincial governments in these areas, however, negotiating with a single, experienced rights owner may be advantageous.

IV. Tenure

The Atlantic provinces address land tenure for oil and gas exploration and production through the granting of a combination of exclusive and non-exclusive rights.

1. Nova Scotia

There are three types of interest that may be granted under the NS Petroleum Act: (a) an exploration license, (b) an exploration agreement, and (c) a production lease.22

a. Exploration licence

An exploration licence is issued by the Minister of Energy [NS Minister], and confers on the licensee, with respect to the lands to which the licence applies, “a non-exclusive right to explore for petroleum.”23

An exploration licence is issued for a term of one year, and may be renewed for further periods of one year each at the discretion of the NS Minister.24 The licensee must deliver to the NS Minister, within six months of the end of the term of the licence, “copies of all seismic data and interpretations thereof obtained pursuant to the program of exploration.”25 The licensee must deliver to the NS Minister “within sixty days of the end of the term of [the] licence… copies of all [other] data obtained pursuant to the [exploration program].”26

b. Exploration agreement

The NS Minister may enter into petroleum exploration agreements in respect of specified areas of Nova Scotia lands,27 and may specify requirements for the use of Nova Scotia labour, goods and services and “commitments to encourage Nova Scotia education and training, research and development.”28 The holder of an exploration agreement has the exclusive right, subject only to the rights of any holder of an exploration

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22. Under the NS Petroleum Act, supra note 12 and the Petroleum Resources Regulations, NS Reg 178/85 [Petroleum Resources Regulations], coal gas is treated differently than other forms of petroleum. A detailed analysis of the Nova Scotia coal gas regime falls outside the scope of this paper.
23. NS Petroleum Act, supra note 12, s 13(2).
24. Ibid, s 13(3).
25. Petroleum Resources Regulations, supra note 22, s 14(5).
27. NS Petroleum Act, supra note 12, s 14(1).
28. Ibid, s 14(2).
license or coal gas agreement, to explore for petroleum in the area subject to the exploration agreement.

Exploration agreements are issued for a term of three years and, where an agreement holder has complied with all statutory and contractual provisions, the NS Minister must renew the agreement for a succeeding three year term or such shorter term as the holder may request. The NS Minister is prohibited from renewing an exploration agreement for more than two successive terms, and the aggregate of the terms, including all renewals must not exceed nine years.

Upon entering into an exploration agreement, the NS Minister may require the agreement holder to furnish bonds in such amounts as the NS Minister may deem appropriate to ensure performance of the agreement holder’s obligations under the NS Petroleum Act, regulations and the exploration agreement.

The agreement holder must deliver to the NS Minister annual progress reports, “including interpretations based on work conducted... copies of all information and data obtained pursuant to the program of exploration, and a statement of expenditures....”

c. Production lease

The NS Petroleum Act states that “[t]he holder of an exploration agreement may apply to the [NS Minster] for a production lease of all or part of the area held pursuant to [the] exploration agreement.” Production leases provide the “lessee the right to produce petroleum from the leased area and to market [such] petroleum....” The Minister must grant a production lease to the holder of an exploration agreement if the agreement holder satisfies the Minister that petroleum can be commercially produced from the land proposed to be leased and prepares and receives approval from the Minister for a development program relating to the proposed commercial production.

The NS Petroleum Act further provides that every production lease commences on the date on which commercial production begins and continues for a term of ten years, after which it may be renewed at the

29. It seems that the holder of a pre-existing exploration license or coal gas agreement will remain entitled to carry out the activities provided for in the exploration license or coal gas agreement, despite the issuance of the otherwise exclusive exploration agreement.
30. NS Petroleum Act, supra note 12, s 14(3); Petroleum Resources Regulations, supra note 22, s 50.
31. Petroleum Resources Regulations, supra note 22, ss 50(2), (3).
32. Ibid, s 46(1).
33. Ibid, s 49.
34. NS Petroleum Act, supra note 12, s 15(1).
35. Ibid, s 15(6).
36. Ibid, s 15(2).
option of the lessee for one further term of ten years. Following the first
renewal, "further renewals may be granted by the [NS Minister] upon such
terms and conditions as may be prescribed." The lessee must surrender
the lease at any time if, in the opinion of the NS Minister, the lessee has
failed to diligently perform the approved development program.

2. New Brunswick
Under the *NB Oil Act*, there are three types of interest that may be granted:
(a) a geophysical licence, (b) a licence to search, and (c) a lease. No one
may explore for oil and gas without holding one of these rights.

a. Geophysical licence & permit
Pursuant to the *NB Oil Act*, only the holder of a geophysical licence issued
by the Minister of Energy and Mines [NB Minister] or a permit holder
acting on behalf of the holder of a geophysical licence may conduct
gеophysical exploration.

A geophysical licence is issued for a term of one year and are subject
to the delivery of a security deposit of up to $100,000 (the licences
may be renewed for further periods of one year at the discretion of the
NB Minister). All "reports, plans, data and maps" supplied during an
exploration program become property of the Crown on the termination
of a geophysical licence. Geophysical licensees must file with the NB
Minister, monthly progress reports; a final report within thirty days of
completion of the exploration; and a final plan within three months of such
completion.

A person may only operate geophysical equipment if they hold a
geophysical permit, issued by the NB Minister. Such permits may be

38. *Ibid*, s 15(5). Unlike the typical freehold lease, there is no automatic continuance of a lease as
long as production is ongoing. The fact that the NS Minister may have the discretion to not renew a
lease for a producing asset after twenty years, essentially expropriating the producing asset from the
lessee who expended the time and effort to find and develop the asset may strike some as unfair.
40. *NB Oil Act*, supra note 14, s 4(1).
41. *Ibid*, s 12. Under the *NB Oil Act*, "geophysical exploration" is defined as "any investigation of
the subsurface of the land and includes (a) seismic operations, (b) gravimetric operations, (c)
magnetic operations, (d) electrical operations, (f) geochemical operations, (g) test drilling, and (h) any other
operation employed to determine geologic or other subsurface conditions" (*Ibid*, s 1).
42. *NB Reg 86-191*, ss 4-6.1, Schedule B. [*Geophysical Exploration Reg*]; *NB Oil Act*, supra note
14, s 13(3).
43. *Ibid*, s 7(1)(a).
44. *Ibid*, s 11(2).
granted for a term of one year and may be renewed up to thirty days before the termination of the permit.\textsuperscript{47}

The \textit{Geophysical Exploration Regulation} sets out operational requirements for geophysical exploration, including those relating to boundaries, liability, survey monuments, shotholes, testholes, restoration and the use of land, highways and roads.\textsuperscript{48}

\textbf{b. Licence to search}

A licence to search confers exclusive rights on the licensee to conduct exploratory work in the area subject to the licence,\textsuperscript{49} with the exception of limited geophysical exploration that remains open to any geophysical licensee.\textsuperscript{50} Licensees must do work on the licence area each year during the term of a licence,\textsuperscript{51} and exploration activities must “not interfere with the operations of any holder of a mining or mineral claim or mining lease under the \textit{Mining Act}...”\textsuperscript{52} Licensees also hold the exclusive right to produce, or cause to be produced oil and natural gas in the licence area.\textsuperscript{53}

The NB Minister may grant a licence to “search for oil or natural gas” once a call for tenders has been made for such licence.\textsuperscript{54} The licence to search must be granted within thirty days of the tender closing date, and the NB Minister may require the submission of plans of the exploratory work.\textsuperscript{55} Onshore licences to search are valid for three years and may be renewed for any number of one-year terms at the discretion of the NB Minister.\textsuperscript{56}

In addition to paying annual rental fees, a licensee must submit a deposit equal to the amount of the tendered value of the work to be performed under a licence to search.\textsuperscript{57} As work is completed and reports of such work are submitted to the NB Minister, the NB Minister must return

\begin{itemize}
  \item \textsuperscript{47} \textit{Ibid}, ss 14(1), (2).
  \item \textsuperscript{48} \textit{Ibid}.
  \item \textsuperscript{49} \textit{NB Oil Act}, supra note 14, s 17. “Exploratory work” that is acceptable to the NB Minister includes: “(a) test drilling, (b) regional mapping, (c) surveying, (d) bulldozing, (e) geological, geophysical and geochemical exploration, and (f) other examinations and investigations related to subsurface geology.” NB Reg 2001-66 at s 2(2) [\textit{Licence to Search and Lease Reg}].
  \item \textsuperscript{50} Section 16(2) of the \textit{NB Oil Act}, supra note 14, allows a geophysical licensee to “carry out testhole drilling to a depth of one hundred fifty meters, carry out testhole drilling to a depth not exceeding four hundred fifty metres [with written permission] of the [NB Minister], [or] carry out geological work or geophysical work other than testhole drilling in accordance with the regulations within the boundaries of any licence to search or of any lease.”
  \item \textsuperscript{51} \textit{Ibid}, s 21(1).
  \item \textsuperscript{52} \textit{Ibid}, s 16(3).
  \item \textsuperscript{53} \textit{Ibid}, s 29.
  \item \textsuperscript{54} \textit{Ibid}, ss 17(1), (2).
  \item \textsuperscript{55} \textit{Licence to Search and Lease Reg}, supra note 49, ss 5(1), 6(b).
  \item \textsuperscript{56} \textit{NB Oil Act}, supra note 14, ss 20(1), 20(1.01).
  \item \textsuperscript{57} \textit{Ibid}, s 21(2); \textit{Licence to Search and Lease Reg}, supra note 49, s 4(2).
\end{itemize}
such portion of the deposit to the licensee. The NB Minister, however, has the discretion to retain the deposit if, in the NB Minister’s opinion, the work has not been done to an amount equal to the amount tendered in the licensee’s application and may retain the deposit or delay its return if the licensee fails to comply with the NB Oil Act or the Licence to Search and Lease Regulation.

A report containing prescribed information about the nature and results of the work conducted, together with a statement of the licensee’s total expenditures must be submitted to the NB Minister “within ninety days after the expiration, cancellation or surrender of a licence to search.”

c. Lease
At any time during the term of a licence to search, the licensee may apply to the NB Minister for a lease of all or a portion of the licence area. The NB Minister must grant the lease subject to conditions, if necessary, “if the licensee has complied with [the NB Oil Act] and the regulations.” Notably, a lease may be granted where the NB Minister is satisfied that the licensee has completed the work commitment (or equivalent work) associated with the licence to search.

The NB Minister may also issue a call for tenders for the purchase of a lease related to any areas that are not under a licence to search or lease, under a process that is similar to the call for tenders in respect of licences to search.

Lessees hold the exclusive right to produce oil and natural gas in the leased area. Terms and conditions for a lease include an annual rental fee and reporting requirements on the expiration, cancellation or surrender of a lease. These requirements include submission of a statement of expenditures as well as geological, geophysical and engineering data.

Leases are granted for five year terms, but may be continued for a period to be determined by the Minister in respect of that portion of

58. Licence to Search and Lease Reg, ibid, s 10(1).
59. Licence to Search and Lease Reg, supra note 49, ss 10(2), 10(3).
60. Ibid, s 9(1). An extension for such submission may be granted by the NB Minister for up to an additional ninety days after the initial due date (ibid, s 9(6)).
61. NB Oil Act, supra note 14, s 26(1).
62. Ibid, s 26(2).
63. Licence to Search and Lease Reg, supra note 49, s 11(2).
64. NB Oil Act, supra note 14, s 27.1; Licence to Search and Lease Reg, supra note 49, s 13.
65. NB Oil Act, supra note 14, s 29.
66. Licence to Search and Lease Reg, supra note 49, ss 17(1), (3).
the leased area which the Minister believes is producing or capable of producing, in paying quantity.  

The rights of lessees and licensees may be circumscribed by the powers of the NB Minister with regards to regulation of operations, control of oil and gas production, and taking action to prevent loss or damage.

3. Prince Edward Island

Under the PEI Oil Act, there are three types of interests that may be granted: (a) a geophysical license, (b) a permit, and (c) a lease. Only holders of one of these interests may explore for oil or natural gas, or drill a well.

a. Geophysical license

Pursuant to the PEI Oil Act, only persons holding a geophysical license are permitted to undertake geophysical exploration in the province. Geophysical licenses are valid for a term of one year; however, the Minister of Environment, Energy & Forestry may cancel a geophysical license upon 30 days notice for failure of the holder to comply with the PEI Oil Act or regulations made pursuant thereto.

b. Permit

The PEI Minister may grant a permit where there has been a call for bids for the permit area and a bid has been accepted. The Permit, Lease and Survey System Regulations set out the terms and conditions for bids and the issuance of permits. The permit holder has the “exclusive right to do geological work... geophysical exploration work, and exploratory drilling for oil and natural gas...” in the permit area. An onshore permit is valid for a term of six years, but the Minister may grant a one-time extension of a permit.

67. NB Oil Act, supra note 14, ss 30–30.1. Some flexibility is available for drilling to delineate a pool at the time of expiry ibid, s 30.2. The commentary in supra note 38 concerning the discretion of the NS Minister to renew a production lease would seem to apply equally to the situation in New Brunswick.
68. Ibid, s 36.
69. Ibid, s 37.
70. Ibid, ss 40–44.
71. PEI Oil Act, supra note 16, s 7.
72. Ibid, s 25(1). “Geophysical exploration” is defined in the PEI Oil Act, supra note 16, s 1(e) as the investigation of the subsurface by: “(i) seismic operations, (ii) gravimetric operations, (iii) magnetic operations, (iv) electric operations, (v) geochemical operations, (vi) test-hole drilling, and (vii) any other method approved by the Minister.”
73. Ibid, s 27.
74. Ibid, s 31(2).
75. Permit, Lease and Survey System Regulations, PEI Reg EC689/00 [Permit, Lease and Survey System Reg].
76. PEI Oil Act, supra note 16, s 29.
for up to two years from the date of the expiry. The permittee must submit an annual report to the PEI Minister in respect of the work done and expenditures made in the previous year. The holder of a permit is prohibited from producing any oil or natural gas from a well unless the permittee also holds a lease “for the area on which the well is located.”

c. Lease
The PEI Minister must grant a lease to a permittee covering the area specified in the permit, if the permittee has complied with all of the terms of the permit and the PEI Oil Act. A lease gives the lessee the “exclusive right to produce... oil and natural gas” from the leased area.

The term of an onshore oil and natural gas lease must not exceed 20 years. At any time, a lessee may surrender a lease upon giving 90 days written notice to the PEI Minister. The lease for an area that contains a commercial well will “be renewed... for a further term and for such intervals while still in production as may be prescribed by the regulations.” As well, “[w]here the drilling or working of a well is commenced on the location of a lease before the expiration of the term, the term of the lease [will continue] so long as the drilling or working is being conducted to the satisfaction of the Minister.”

At any time during the term of a lease (except during the first three years), the PEI Minister may order that the lessee commence and continue the drilling of a well within ninety days. Similarly, where a well has been abandoned, or a non-commercial well completed, the Minister may (except within the year following such abandonment or completion) order the lessee to commence and continue the drilling of another well within ninety days.

4. Newfoundland & Labrador
Under the NL Petroleum Act, there are three types of interest that may be granted: (a) an exploration licence, (b) an exploration permit, and (c) a

77. Permit Lease and Survey System Reg, supra note 75, s 8.
78. Ibid, s 10.
79. PEI Oil Act, supra note 16, s 37.
80. Ibid, ss 44(1), (2).
81. Ibid, s 45.
82. Permit Lease and Survey System Reg, supra note 75, s 15(2).
83. Ibid, s 16(1).
84. PEI Oil Act, supra note 16, s 56(2). Currently, the regulations do not address this point.
85. Ibid, s 56(3).
86. Ibid, s 56(8).
87. Ibid, s 56(9).
lease. Only holders of one of these interests may explore for oil or natural gas.\(^8\)

a. **Exploration licence**

An exploration licence confers a non-exclusive right to conduct an exploration survey, and is required in order for a person to carry out such a survey.\(^8\) An exploration licence is valid for the shorter of 180 days after the commencement date or when the exploration survey is complete. An extension of another 180 days may be granted by the Director\(^9\) following an application from the licensee.\(^9\) If the Director is “of the opinion that a licensee is interfering with or damaging petroleum operations...” of another person, they may order the licensee to terminate or modify the survey.\(^9\)

b. **Exploration permit**

Exploration permits give a permit holder the non-exclusive right to an exploration licence exclusive rights to drill and test for petroleum and the exclusive right to convert the permit into a lease.\(^9\) The Minister of Mines and Energy [NL Minister] may grant an exploration permit where there has been a competitive bidding procedure for the permit area and a bid has been accepted.\(^9\) Where no bids are received, the NL Minister may directly issue exploration permits within one year of the closing.\(^9\) The initial term of an exploration permit is five years and an application may be made to the NL Minister for a secondary term of two years.\(^9\) The NL Minister may suspend the term of the permit if a permittee requests such suspension to make up for time lost due to mechanical, safety or technical problems.\(^9\)

c. **Lease**

A lease under the *Petroleum Regulations* confers a “non-exclusive right” to an exploration licence, an exclusive right to develop a petroleum pool in accordance with an approved development plan, and exclusive

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\(^8\) *NL Petroleum Act*, supra note 17, s 8(1).
\(^9\) CNLR 1151/96, ss 10-11 [*Petroleum Regs*]. Section 2(f) states that exploration surveys include "seismic, gravimetric, magnetic, electrical, geochemical, drilling and logging of stratigraphic wells, but does not include drilling of other wells."
\(^9\) The Director is the Deputy Minister of Mines & Energy: *ibid*, s 2(c).
\(^9\) *Ibid*, s 10(3).
\(^9\) *Ibid*, s 24(1)(a)-(c).
\(^9\) *Ibid*, ss 25, 26(1).
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rights to produce, use and market petroleum from the leased area. In order to convert an exploration permit into a lease, a permittee must submit a development plan to the NL Minister for approval. The NL Minister’s decision regarding the application for conversion must take into consideration the technology proposed; the sufficiency of environmental, social and economic impact studies; employment and industrial benefits; the technical and economic feasibility of using the petroleum in the province; and the cost of development. The initial term for a lease is ten years, with the possibility of renewal for a period of five years. The NL Minister may take all necessary measures to prevent damage to the environment or property, to manage operations that could cause injury or death to a person, to handle a force majeure, or in response to a project proponent’s failure to comply with the NL Petroleum Act.

V. Surface access

In addition to obtaining a licence, permit or lease, and paying any applicable rent or royalty, a person seeking to explore for or produce oil and gas in the Atlantic provinces will also have to come to an agreement with the surface rights holder with respect to the terms and conditions for surface access, including compensation.

1. Nova Scotia

The NS Petroleum Act provides that no holder of a petroleum right “may enter upon any lands, including lands owned by the Province, to explore for or develop petroleum, without the consent of the owner or lawful occupier of the surface of such lands.” Likewise, no holder of a production lease may enter onto or occupy any lands to produce petroleum without the written consent of the owner or lawful occupier of the lands. The NS Petroleum Act allows for an application to the NS Minister for an order granting entry to the surface for the purposes of exploring for or developing petroleum, including appropriate compensation, in the event

98. Ibid, s 39(1).
99. Ibid, s 32.
100. Ibid, s 35(2)(a)–(e).
101. Ibid, ss 43(1), (2).
102. Ibid, s 49(a)–(d).
103. “Petroleum right” “means an exploration licence, an exploration agreement, a production lease or a coal gas agreement…or…any right arising” under any of the foregoing NS Petroleum Act, supra note 12, s 2(h).
104. Ibid, s 12(1); Onshore Petroleum Drilling Regulations, NS Reg 29/2001, s 20 [Onshore Petroleum Drilling Regs].
105. NS Petroleum Act, supra note 12, s 24.
that the holder of the petroleum rights is unable to obtain the consent of the surface rights holder.\(^{106}\)

In the case of a production lease, if the consent of the surface rights holder cannot be obtained, the lessee may request that the NS Minister order the land necessary for the production of petroleum be vested in the lessee, and the vesting is treated as an expropriation under the *Expropriation Act*.\(^{107}\)

2. **New Brunswick**

In New Brunswick, the *NB Oil Act* states that holders of licences to search, well licences and leases have the right to the use and possession of any part of the surface necessary for exploring for, winning, extracting and delivering oil or natural gas, or both, from that location.\(^{108}\) Similarly, holders of geophysical licences have the right to use and possession for the purpose of exploring.\(^{109}\) However, these rights are subject to obtaining consent from the Minister of Natural Resources for exploration on Crown lands.\(^{110}\) Where lands other than Crown lands are involved, a licensee, lessee, geophysical licensee, permittee or well licensee may only enter on and use such lands for the purposes of exploring for oil and natural gas, or for doing any other act, if they have obtained the right of entry by agreement with the land owner, tenant or occupant.\(^{111}\) Entry on land, however, comes with the liability for any loss or damage (in the case of Crown land) and for loss or damage to land or chattels (for other lands).\(^{112}\)

The *NB Oil Act* also allows for an application to the NB Minister for a special order granting entry to the surface for the purposes of exploring for or developing petroleum, including appropriate compensation to the surface rights holder, in the event that the holder of the oil and gas rights is unable to obtain consent of the surface rights holder.\(^{113}\) The discretion to grant or deny a special order remains entirely with the NB Minister, who may issue such decision with terms and conditions.\(^{114}\)

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106. Ibid, s 12(2).
107. Ibid, ss 24(2), (5).
108. NB Oil Act, supra note 14, s 9(2)(a).
110. Ibid, s 8.
111. Ibid, s 9(1)(a).
112. Ibid, ss 9(3), 9(4).
114. Ibid, s 10(3)(c).
3. **Prince Edward Island**

In Prince Edward Island, Crown lands may be explored for oil and natural gas only with the consent of the PEI Minister. In addition, no permittee, lessee or geophysical licensee may enter and use any private land until he has obtained the right to enter and use such land either by agreement with the owner, tenant or occupier, or by obtaining a special order from the PEI Minister under the *PEI Oil Act*.

In the event that a permittee, lessee or geophysical licensee "is unable... [to come to] an agreement with the owner, tenant or occupant of private lands for the right to enter and use the lands covered by his permit or lease ... he may apply to the [PEI] Minister... for a special order to enter and use [the] lands." The PEI Minister "may grant such special order upon such terms and conditions as he may think proper, and may determine the amount of compensation to be paid." There is no appeal from the granting by the [PEI] Minister of such a special order, except to a judge of the Supreme Court "upon matters of law only." The PEI Minister also has the power to order arbitration in respect of the amount of compensation to be paid by the permittee, lessee or geophysical licensee for any damage to the land.

4. **Newfoundland & Labrador**

The *NL Petroleum Act* provides that a permittee or lessee may enter upon and survey, prospect, and explore lands (both Crown and other lands). The permittee or lessee must, however, pay compensation for damage or injury suffered by the owner of the surface, mineral or other rights, and the amount of compensation is to be settled by arbitration if the parties are unable to agree. Where a lessee requires surface Crown lands in connection with petroleum production, the Lieutenant-Governor in Council is obliged to assure to a lessee the surface Crown lands as may be necessary for the production of petroleum pursuant to the lessee's lease, on reasonable and equitable terms and conditions. In addition, where a lessee reasonably requires privately held land for the production of petroleum, the Lieutenant-Governor in Council is required to purchase...
or expropriate such lands. Where a permittee or lessee encounters resistance or opposition to its entry onto lands as permitted under the NL Petroleum Act, the permittee or lessee is entitled to obtain a court order directing the sheriff to "put down the resistance or opposition and allow the entry to be made."

5. Commentary
Currently, several factors common to the surface access regimes in the Atlantic provinces may give rise to concerns for petroleum rights holders trying to obtain timely and fair surface access in order to conduct exploration or development work. First, there are no independent third parties similar to the Alberta Surface Rights Board to adjudicate compensation disputes. Second, the adjudication of such disputes is potentially politicized since, in some cases, the function remains in the hands of the relevant minister. It may be that the surface access compensation practice in Atlantic Canada will develop along lines similar to that experienced in Alberta, where there is longstanding practice concerning the calculation of appropriate compensation to be paid to a surface rights holder for surface access required for oil and gas purposes. Without more definitive statutory guidance, however, it is far from certain that this will be the case.

VI. Operations
The approach to the regulation of oil and gas operations in Atlantic Canada varies from province to province. In some cases, an authorization process is used, in which the regulator has a great deal of discretion to approve or not approve operational plans. In other jurisdictions, a more prescriptive approach has been adopted.

1. Nova Scotia
The primary tool for regulating well operations, including drilling, re-entry, suspension, completion and abandonment in Nova Scotia is a system of authorizations. Nova Scotia does not have regulations or directives setting out detailed prescriptive requirements as to how well operations must be carried out, as is the case in Alberta (and some of the other Atlantic provinces). Instead, it relies upon a system of authorizations, in which it is necessary to obtain an authorization from the Administrator appointed by the NS Minister pursuant to section 6 of the Onshore Petroleum Drilling Regulations to carry out well operations. To obtain an authorization, the operator must provide sufficient information to satisfy the Administrator

124. Ibid, s 23.
125. Ibid, s 27(1). This is an interesting contrast to the approach taken in the other Atlantic provinces.
126. Onshore Petroleum Drilling Regs, supra note 104, s 6.
that the planned well operations will be carried out in a satisfactory manner. The Onshore Petroleum Drilling Regulations set out the information that must be included in an application for an authorization, the timeframes in which such an application must be filed prior to the time of the intended work, and the applicable fees.\textsuperscript{127}

As a condition of every authorization, the operator must, prior to commencement of drilling, provide the Administrator with financial security (in a form and amount satisfactory to the NS Minister), sufficient "to abandon the well and leave the drill site in a satisfactory condition" in the event that the operator fails to do so. The operator must also provide the Administrator with evidence that the operator is "able to meet any financial liability that may be incurred as a result of the drilling of the well."\textsuperscript{128}

One of the benefits of the authorization system is that it does not constrain operators to prescribed methods or equipment, and allows them to take advantage of technological improvements and develop creative solutions. This could potentially be a real benefit in a jurisdiction with an experienced regulator and sufficient technological expertise to quickly and effectively determine the appropriateness of an operational plan. Operators may miss the certainty that comes with a prescriptive set of regulatory requirements. Furthermore, some operators may be wary of relying upon discretionary decisions of the Administrator, especially where the Administrator may not have the benefit of a department with substantial experience in evaluating the appropriateness of petroleum operations plans.

Operators must submit daily and weekly reports to the Administrator while drilling. To do so, they must obtain well tests, wireline logs, analyses, surveys and samples during the drilling of a well that are sufficient to provide, in the opinion of the Administrator, a comprehensive geological and reservoir evaluation. The Administrator also may require an operator to take a wireline log, test or survey, cut a core or collect a sample of drill cuttings or formation fluids.

An applicant for a production lease must submit to the NS Minister a development program which includes the information prescribed in the Petroleum Resource Regulations.\textsuperscript{129} The NS Minister must approve the development program unless they are of the opinion that, inter alia, "the applicant's costs of development and production are significantly higher

\textsuperscript{127} Ibid, ss 8, 9, 10, 14.
\textsuperscript{128} Ibid, ss 16(a), (b).
\textsuperscript{129} Petroleum Resource Regulations, supra note 22, s 52.
than the costs normally incurred by lessees using good oil field practices in similar operating environments; the development program will not result in optimum recovery of the resource; or [it] is not in the best interests of the people of Nova Scotia."\(^{130}\)

This broad discretion is potentially problematic for prospective lessees as it leaves a great amount of discretion in the hands of the NS Minister to refuse to approve a development plan after an exploration agreement holder has expended time, money and other resources on finding and developing a plan to exploit the resource, solely on the basis that the NS Minister is of the view that the development plan is not in the interest of the people of Nova Scotia. This kind of uncertainty, especially in a jurisdiction without much collective experience of petroleum production, will not be welcomed by those seeking to explore for petroleum in Nova Scotia.

2. New Brunswick

The NB Oil Act also provides for an authorization system, prohibiting any person from drilling a well without a well licence unless the well is drilled on behalf of a person who has a well licence.\(^{131}\) Applications for well licences must include a security deposit of $50,000, proof of liability coverage for $10,000,000 per well (which must be maintained during the term of the well licence), the applicant’s drilling program and any other information prescribed by regulation.\(^{132}\) The licences, once issued, are valid until the well has been properly abandoned\(^{133}\) and may be transferred upon approval of the NB Minister. Applications may also be made to the

\(^{130}\) Ibid, s 54(1), (c), (d) and (f).

\(^{131}\) NB Oil Act, supra note 14, s 4(2)(b). “Well licences” are defined under the NB Oil Act as “a valid and subsisting licence to drill a well granted [pursuant to the regulations].” Under the NB Oil Act, s 59(j), the Lieutenant-Governor in Council may make regulations respecting the method of granting and renewing a well licence and respecting the terms and conditions thereof, but no such regulations are currently in force. The province has, however, provided extensive policy direction on all stages of land-based oil and natural gas production, with an emphasis on drilling and completion, including hydraulic fracturing. Province of New Brunswick, Responsible Environmental Management of Oil and Gas Activities in New Brunswick: Rules for Industry (15 February 2013), at vii, online: <http://www2.gnb.ca/content/dam/gnb/Corporate/pdf/ShaleGas/en/RulesforIndustry.pdf> [NB Rules for Industry].

On one hand, the NB Rules for Industry prescribe many technical standards and requirements; on the other, they provide for significant regulatory involvement with numerous operational plans that must be submitted for approval. These standards are likely being applied under the Ministerial powers, provided for under the NB Oil Act, to manage the production and development of oil and natural gas in New Brunswick, supra note 14, ss 36-38, 40-44; section 36(c) of the NB Oil Act allows the NB Minister to “control and regulate the production of oil, natural gas, and water by restriction, proration, or prohibition.”

\(^{132}\) Ibid, s 16.5(1); Government of New Brunswick, Department of Natural Resources, “Minerals and Petroleum—Exploration and Development” (3 January 2013), online: <http://www.gnb.ca/0078/minerals/ONG_Exp_Devel-e.aspx#DevelopProduction> [NB Exploration & Development Website].
NB Minister regarding drilling program changes, suspension, resumption, reconditioning, plugback and abandonment of a well.\textsuperscript{134}

Upon discovery of oil or natural gas, a licensee, holder of a licence to search or lessee shall report immediately the find to the NB Minister and, if requested, supply samples from “all fluids encountered in each well drilled.”\textsuperscript{135} Designation of a well as a “discovery well,” upon request of the licensee or lessee to the NB Minister, would then allow for a subsequent application for a production rate prior to commencing production.\textsuperscript{136} This rate would cover up to three additional wells within a twelve-month period from the completion of the designated discovery well. Any additional drilling or production beyond the initial four wells, or the twelve-month period, would fall under a development plan, which must be approved by the NB Minister.\textsuperscript{137}

As discussed above, the \textit{NB Oil Act} specifies reporting requirements for geophysical licences, licences to search and lease holders. The NB Minister also requires extensive reporting on the ongoing operations, including inter alia the following: notice of commencement of drilling; daily well reports; well reports 45 days after rig release; further analysis one month after completing or suspending an operation; and a report on drill cuttings and cores one month after drilling (except for core analysis respecting potential reserves, to be submitted 6 months after completion of the analysis).\textsuperscript{138} Most of this information is to be open to public inspection, free of charge, once it is submitted to the NB Minister. Some reports and data may, however, be subject to a delay between submission and release to the public, including well-specific information that is designated as confidential, which will only be released one year after the release of the rig from the well.\textsuperscript{139}

\textsuperscript{134} NB Exploration \& Development Website, \textit{ibid.} The NB Minister has the power, under s 43(1) of the \textit{NB Oil Act, supra} note 14, “to enter upon...and do whatever the [NB] Minister deems necessary” for compliance to be achieved with regards to control, completion, suspension or abandonment of a well. Any security deposit associated with such well may be used to cover the costs incurred, s 43(2).

\textsuperscript{135} Licence to Search and Lease Reg, supra note 49, s 19.

\textsuperscript{136} NB Exploration \& Development Website, \textit{supra} note 133. See the powers of the NB Minister at ss 36, 37 of the \textit{NB Oil Act, supra} note 14.

\textsuperscript{137} NB Exploration \& Development Website, \textit{supra} note 133. See the \textit{NB Oil Act, supra} note 14, s 37.

\textsuperscript{138} NB Exploration \& Development Website, \textit{supra} note 133.

\textsuperscript{139} \textit{NB Oil Act, supra} note 14, s 49; Licence to Search and Lease Regulations, \textit{supra} note 49, s 20. Notably, these confidential information provisions trump the province’s freedom of information legislation.
3. **Prince Edward Island**

Unlike Nova Scotia and New Brunswick, Prince Edward Island has adopted detailed, prescriptive regulations relating to well drilling and operations in the *Oil and Gas Conservation Regulations*. In addition, the *PEI Oil Act* requires that a person obtain an authorization for drilling or operating a well or drilling a test hole, and a license for operating a drilling or service rig. The *PEI Oil Act* sets out the information that must be submitted in order to obtain a well authorization, a test hole authorization and a rig license.

4. **Newfoundland & Labrador**

Similar to the situation in Prince Edward Island, Newfoundland and Labrador has detailed, prescriptive regulations addressing well drilling and operations set out in the *Petroleum Drilling Regulations*, as well as a requirement to obtain certain authorizations. In order to drill a well, an operator must submit and obtain approval of a drilling program as well as an “authority to drill a well” from the Director. Standards that operators must comply within the *Petroleum Drilling Regulations* include those regarding casing, well control equipment, drilling operations and procedure, well evaluation, formation flow testing, and well termination. The Director, however, may authorize the use of equipment and methods that provide an equivalent level of safety, environmental protection and conservation of petroleum resources. The Director may also approve experimental drilling equipment. The Director retains the power to change the standards set out in the *Petroleum Drilling Regulations* and in the authorization process by notifying operators in writing that equipment, procedures, courses or programs are no longer acceptable.

Drilling program approvals are valid for a specified term not longer than three years and a performance bond may be required by the NL Minister. Operators are required to supply weekly reports on their drilling programs and may be required by the Director to submit samples or records obtained in the drilling.

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140. *Oil and Gas Conservation Regulations*, PEI Reg EC 170/74 [Oil and Gas Conservation Regs].
141. *PEI Oil Act*, supra note 16, ss 66(2), 71, and 75(1), respectively.
142. *Ibid*, ss 67, 72, 76.
143. CNLR 1150/96 [Petroleum Drilling Regs].
144. *Ibid*, ss 5, 12, 32.
146. *Ibid*, s 34.
VII. Pooling and unitization

Pooling is a process whereby the owners of the oil petroleum rights within a single spacing unit combine their holdings so that a well can be drilled on the spacing unit.\textsuperscript{151} Unitization, on the other hand is a process whereby a number of wells producing from the same reservoir are combined to operate as a single unit, so that the reservoir may be operated as efficiently as possible. In many jurisdictions, there are regulatory mechanisms to provide for both voluntary and mandatory pooling and unitization.

1. Nova Scotia
   The \textit{NS Petroleum Act} and the regulations promulgated thereunder do not address unitization or pooling.

2. New Brunswick
   The \textit{NB Oil Act} allows the NB Minister to “enter into a unitization agreement for the unitized operation of a field or pool or any part thereof.”\textsuperscript{152}

3. Prince Edward Island
   Under the \textit{PEI Oil Act}, lessees who have locations within the same spacing area may choose to “pool their locations for the development and operation” of the relevant spacing area, and the PEI Minister may enter into a pooling agreement to that effect. In the absence of a voluntary agreement by the lessees, one lessee may apply to the PEI Minister for a mandatory pooling order directing the lessees to pool those portions of the leases within the spacing area.\textsuperscript{153} In addition, the Lieutenant-Governor in Council “may authorize the Minister to enter into a unitization agreement for the unitized operation of a field or pool or any part thereof...” and such agreements, when executed, are binding on all parties.\textsuperscript{154}

4. Newfoundland & Labrador
   The \textit{NL Petroleum Act} and the regulations promulgated thereunder do not address unitization or pooling. The \textit{NL Petroleum Act} does, however, provide the Lieutenant-Governor in Council the power to make regulations “allocating production, revenue, valuation of petroleum, costs, expenses,

\textsuperscript{151} Typically, an operator is not permitted to drill a well on a spacing unit unless it holds all the oil and gas rights for the target zone in the spacing unit.

\textsuperscript{152} \textit{NB Oil Act, supra} note 14, s 46. The current \textit{NB Oil Act} and its regulations do not provide much further detail regarding unitization. Under the \textit{NB Petroleum Act, supra} note 14, a unitization agreement will also have to be approved by the NB Minister: s 66(1). The new Act specifies the conditions under which unitization may occur and provides the Minister with the power to issue orders requiring unitization, s 67, as well as the power to “grant...petroleum right[s] for...area[s]” that “[are] capable of [production]” and “are a part of a pool or field...in a unitization agreement”: s 68.

\textsuperscript{153} \textit{PEI Oil Act, supra} note 16, ss 61(1), (2).

\textsuperscript{154} \textit{Ibid}, s 96.
allowances, credits and other deductions between [two] or more leases subject to a unit agreement or unit operation order.”

5. Commentary
It is unclear at this early point in the development of the oil and gas industry in Nova Scotia and Newfoundland and Labrador, what the effect of there being no statutory mechanism for pooling or unitization may be. We expect that much will depend on the size of the leases issued by the respective ministers. While the lack of pooling and unitization provisions in these two jurisdictions may be considered somewhat of a gap, it is likely a gap that could be overcome by negotiations with the respective ministers in the event that either pooling or unitization becomes necessary.

In the case of New Brunswick and Prince Edward Island, it appears that unitization can only occur by voluntary agreement of the relevant minister and the affected interest holders. There does not appear to be any mechanism to force unitization under either the NB Oil Act or the PEI Petroleum Act.

VIII. Royalties and benefits
Each of the Atlantic provinces has adopted a royalty regime applicable to onshore oil and gas production. In addition, in some cases, the oil and gas legislation provides for local employment and purchasing requirements to maximize the benefits that accrue to the province from the industry.

1. Nova Scotia
In Nova Scotia all petroleum produced pursuant to a lease is subject to a monthly royalty of ten per cent, based on fair market value at the wellhead, but the NS Minister may order that all or part of a royalty be paid in kind, and for any petroleum other than oil, a deduction from the royalty shall be made for the cost of separation and processing, as determined by the NS Minister. Royalties are not payable on petroleum consumed for purposes of drilling, producing, extracting, testing or treating, or which is re-injected in the course of drilling or production “in accordance with good oilfield practice”. Finally, no royalties are payable on oil and gas produced within the first two years of a first lease on lands under an exploration agreement, and royalties may be suspended or reduced if the Lieutenant-Governor in Council is of the opinion that this

155. NL Petroleum Act, supra note 17, s 39(1)(b.1).
156. Petroleum Resources Regulations, supra note 22, ss 63(1), (2).
157. Ibid, s 18(7).
158. Ibid, s 63(3).
159. Ibid, ss 18(4)(a)(b).
160. Ibid, s 64.
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“would enable production...to be commenced or continued for a longer period or would facilitate the implementation of conservation measures.”

There are also local benefits requirements applicable to the exercise of rights under exploration agreements and leases. Rights holders must make all reasonable attempts to utilize goods and services provided from within Nova Scotia, where “competitive in terms of fair market price, quality and delivery,” and to make all reasonable attempts to employ qualified persons resident in Nova Scotia.

2. New Brunswick

Royalties in New Brunswick are reserved to the Crown and are prescribed by the Lieutenant-Governor in Council. Exceptions may be made, however, for deductions related to the cost of production as specified by the NB Minister or, in cases regarding unitized operations or conservation schemes, plans or projects, the NB Minister may enter into a royalty agreement to set the amount of royalty and method of calculation. Under the Licence to Search and Lease Regulations, the royalty for oil ranges from five to twelve per cent, depending on the monthly production of a well; the royalty for natural gas is the sum of a basic royalty component and an economic rent royalty. Any oil and natural gas consumed in connection with development work, or which is flared or returned to a formation, is not subject to any royalty.

3. Prince Edward Island

A royalty is reserved to the Crown on oil and natural gas and sulphur obtained by processing natural gas in such amounts as may from time to time be prescribed by the Lieutenant Governor in Council. The Lieutenant-Governor in Council has issued an order providing that the royalty on oil shall increase with the volume of oil produced, ranging from a low of five per cent to a high of twelve per cent. With respect to natural gas and sulphur, the royalty is ten per cent. The PEI Minister

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161. Ibid, s 18(6).
162. Ibid, s 20.
163. Ibid, s 21.
164. NB Oil Act, supra note 14, s 55.
165. Ibid, ss 56(1), (2).
166. Licence to Search and Lease Reg, supra note 49, s 22 and Schedule C.
167. Ibid, s 22(16).
168. PEI Petroleum Act, supra note 16, s 62(1).
169. Royalties Order, PEI Reg EC 537/85, s 1(1), Schedule A [Royalties Order Regs].
170. Ibid, ss 2, 3.
may specify allowable deductions that may be used when computing the royalty.\textsuperscript{171}

Notwithstanding the royalties set out in the \textit{Royalty Order}, the PEI Minister may enter into agreements providing for the payment of a nominal royalty.\textsuperscript{172} The Lieutenant-Governor in Council may also authorize the PEI Minister to “enter into an agreement establishing the amount of royalty to be paid and the method of calculating the royalty, on oil and natural gas produced from a unitized operation, or as the result of a conservation plan, scheme, or project, including, but not limited to, injection or pressurization schemes.”\textsuperscript{173}

4. \textit{Newfoundland & Labrador}

All royalty on petroleum and interest, penalties and other amounts, collectively known as “royalty share,” for petroleum produced under a lease are reserved to the Crown.\textsuperscript{174} The amount and manner of payment are set out in the \textit{Royalty Regulations, 2003}\textsuperscript{175} for leases issued after 1 April 1990 and the \textit{Oil Royalty Regulations} for all other leases.\textsuperscript{176} The Lieutenant-Governor in Council is, however, permitted to enter into a royalty agreement with interest holders.\textsuperscript{177} The \textit{NL Petroleum Act} also provides the Crown with the power to take a royalty share in kind.\textsuperscript{178}

The \textit{Royalty Regulations, 2003} provide for both a basic and an incremental royalty to be paid, although these rates and calculations only appear to apply to oil.\textsuperscript{179} The basic royalty is calculated as a percentage of gross revenue and “oil taken in kind by the Crown,” but does not include oil that was “transferred to the interest holder at the loading point within 91 days before the end of the month” being calculated for and allowed shrinkage (oil that is incidental to the transportation of oil produced and sold.)\textsuperscript{180} The incremental royalty is additionally applied when the sum of the gross revenue and incidental revenue equals the sum of eligible pre-development costs, capital costs, operating costs, return allowance and royalties paid, except those paid in kind.\textsuperscript{181}

\textsuperscript{171.} \textit{PEI Petroleum Act}, supra note 16, s 63.
\textsuperscript{172.} \textit{Royalties Order Regs}, supra note 166, s 5.
\textsuperscript{173.} \textit{PEI Petroleum Act}, supra note 16, s 63(2).
\textsuperscript{174.} \textit{NL Petroleum Act}, supra note 17, ss 31, 32.
\textsuperscript{175.} \textit{Royalty Regulations, 2003}, NLR 71/03 [2003 Royalty Regs].
\textsuperscript{176.} \textit{Oil Royalty Regulations}, NLR 22/96.
\textsuperscript{177.} \textit{NL Petroleum Act}, supra note 17, s 33.
\textsuperscript{178.} \textit{Ibid}, ss 34.
\textsuperscript{179.} \textit{2003 Royalty Regs}, supra note 172, ss 4, 5(1), 6, 10, 11.
\textsuperscript{180.} \textit{Ibid}, ss 6, 7(4)(a), 8(1).
\textsuperscript{181.} \textit{Ibid}, ss 10(3), 11(3).
Where local goods and services are competitive in terms of fair market price, quality and delivery, an interest holder must give first consideration to them for work relating to petroleum operations. First consideration shall also be given to qualified persons ordinarily resident in the province.

IX. Abandonment and ongoing liability

With the exception of New Brunswick, the regulatory regime in each of the Atlantic provinces addresses an operator’s obligations associated with the abandonment of a well. In some cases, other legislation such as applicable environmental laws or the terms of applicable leases, permits, or authorizations may impose additional obligations with respect to abandonment and remediation.

1. Nova Scotia

The operator of an abandoned well is required to inspect the well and submit a report to the Administrator each year or at such other interval required by the Administrator. The operator remains responsible for the proper abandonment of the well if the abandonment of the well is found not to be non-compliant with the regulations or the terms of an Authorization.

2. New Brunswick

The NB Oil Act does not include detailed requirements related to the abandonment of wells. Currently, the procedures in the latest version of the Alberta Energy and Resource Conservation Board’s Directive 020 on Well Abandonment have been adopted. Also, it is possible that environmental approvals issued for the operation of a well could include terms and conditions relating to the abandonment of a well.

3. Prince Edward Island

The Oil and Gas Conservation Regulations set out detailed technical requirements for the abandonment of wells, including the requirement to develop an abandonment program and obtain permission from the Conservation Engineer. After a well is abandoned, the well site must be reclaimed as soon as “weather and ground conditions permit.”

182. NL Petroleum Act, supra note 17, s 61.
183. Ibid, s 62.
184. Onshore Petroleum Drilling Regs, supra note 104, ss 31(3)(a), (b). The Administrator is the person designated by the NS Minister to administer the Onshore Petroleum Drilling Regs, s 5(1).
185. Ibid, s 33.
186. See note 134 above. NB Oil Act, supra note 14, s 16.7.
187. NB Rules for Industry, supra note 131, s 2.30.
188. Oil and Gas Conservation Regs, supra note 140, ss 55–56.
189. Ibid, 57.
The PEI Petroleum Act does not directly address ongoing liability for abandoned wells. It is possible, however, that the PEI Minister could take the position that subsection 16(2) of the Permit, Lease and Survey System Regulations imposes ongoing liability for abandoned wells. That subsection provides that notwithstanding any surrender, cancellation or expiration of any lease, the lessee remains liable for any act, matter or thing for which at the date of the surrender, cancellation or expiration the lessee was liable under the PEI Petroleum Act, the regulations or the terms of the surrendered, cancelled or expired document. It is far from certain that a court would interpret this provision as imposing ongoing liability on the lessee for an abandoned well.

4. Newfoundland & Labrador
The Petroleum Drilling Regulations require site restoration “to the satisfaction of the [D]irector.” Well abandonment must be conducted in the manner described in a well termination program as approved by the Director. The Petroleum Drilling Regulations also include various requirements and technical specifications for the proper abandonment of wells. Neither the NL Petroleum Act nor the regulations made thereunder address ongoing liability for abandoned wells.

X. Other matters of note
1. Nova Scotia
When a production lease is cancelled, the NS Minister may “require the lessee to transfer to the province or its nominee at no cost, and in good working order, any production or transportation facility that the NS Minister believes is used or useful for the production of petroleum under the lease.” In addition, the NS Minister may, upon six months written notice, prohibit the removal of petroleum from Nova Scotia where an equivalent market for such petroleum for Nova Scotian use exists or is projected to exist, unless a contract for such removal has been approved by the NS Minister. These provisions may be vestiges of a different era, which the Nova Scotia government would not seek to make use of today, but the uncertainty that they create will likely not be welcomed.

190. Permit, Lease and Survey System Reg, supra note 75, s 16(2).
191. Petroleum Drilling Regs, supra note 142, s 117.
192. Ibid, s 120(1)(2). The Director may also approve changes in the termination program if circumstances have changed since the submission of the program, ibid, s 121.
193. Ibid, s 134, and generally, ss 125-135.
194. Petroleum Resources Regulations, supra note 22, s 37.
195. Ibid, s 70.
by companies seeking to explore for and develop petroleum resources in Nova Scotia.

With regards to unconventional exploration and production, Nova Scotia has indicated that it intends to introduce legislative amendments to ban high volume hydraulic fracturing.196

2. New Brunswick

If the NB Petroleum Act is proclaimed, the NB Oil Act would be repealed.197 At the time of publication, however, the NB Petroleum Act, which been assented to, has yet to be proclaimed in force. In light of recent amendments to the NB Oil Act and its regulations,198 it is questionable whether the NB Petroleum Act will ever come into force or if the future regulatory framework for on-shore oil and gas in New Brunswick will continue to be built on the NB Oil Act. Recent exploration activities in the province have also prompted substantial policy changes, including a “Phased EIA” process for the gradual environmental assessment of potential commercial developments and adoption of the extensive Rules for Industry,199 which are intended to manage oil and gas activity over the next two years (but which may in fact inform further, more formal regulatory changes).

Conclusion

Each of the Atlantic provinces has a relatively fulsome statutory regime governing upstream oil and gas activities. These regimes were, for the most part, instituted many years ago. They have not benefited from being tested and refined in the course of large scale upstream oil and gas activities.

The regulatory regimes in these provinces will look vaguely familiar to practitioners who practice in Alberta and the other western provinces, with some important differences, such as: oil and gas in situ being deemed to be owned by the Crown; the lack of an arm’s length regulator; a tenure system geared towards Crown ownership in situ; different surface access requirements; and in some Atlantic provinces, a reliance upon approvals as opposed to detailed prescriptive regulations or directives.

While none of these differences are prohibitive to the development of an upstream oil and gas industry in Atlantic Canada, companies and

197. NB Petroleum Act, supra note 14, s. 171(a).
198. NB Reg 2014-28; An Act to Amend the Oil and Natural Gas Act, SNB 2013, c 12; An Act Respecting the Right to Information and Protection of Privacy Act, SNB 2013, c 34, ss 23, 24; NB Reg 2013-57; NB Reg 2013-58; An Act to Amend the Oil and Natural Gas Act, SNB 2012, c 34; An Act to Amend the Executive Council Act, SNB 2012, c 52, s 38.
199. Supra note 131.
their advisors seeking to undertake oil and gas activities in this region should understand that the regulatory regimes are different than those of the western provinces, and that, especially in the early stages of the development of the industry, there could be some challenges associated with the general lack of familiarity with oil and gas matters that the regulators, government, suppliers and the public may have, and the fact that the oil and gas statutes and regulations have not been tested and refined in the course of large-scale oil and gas operations. While there is enough of a regime in each Atlantic province to facilitate early-stage oil and gas exploration and development, if the industry expands, it will likely be necessary to implement amendments to allow for independent regulators and to address some of the matters set out above.