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The Legal Character of the Right to Explore and Exploit the Natural Resources of the Continental Shelf

F.V.W. PENICK*

International law, both through treaty and customary usage, confirms each coastal state's right to explore and exploit the natural resources of its continental shelf. Little attention, however, has been paid to the legal characterization of these rights. This paper discusses the need for such characterization and reviews the nature of analogous onshore mineral rights. From an examination of the negotiations leading to the final wording of the Geneva Convention on the Continental Shelf and the subsequent conduct of nations, the conclusion is drawn that coastal states enjoy real property rights in the minerals in situ of the continental shelf.

THE NEED FOR CHARACTERIZATION

In order to effectively administer its continental shelf rights, a coastal state must be able to define the nature of those rights. A state may wish, for instance, to dispose of offshore mineral rights by grant or lease and require those dispositions to be registered in a designated land registry. Such a system will produce confusion and uncertainty if the rights of the state under international law are limited to the exercise of legislative powers and do not extend to any interest in the subsurface minerals until they are reduced to possession. A domestic natural resources policy will be either vague or in-

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consistent with international law unless the characterizations of the international rights are known.

Several nations have enacted vague internal legislation which does little more than confer on developers of continental shelf natural resources whatever rights belong to the country under international law.¹ The uncertain nature of the exploration and exploitation rights thus descend another level to the resource companies, and it is at this level that practical concerns of the nature of the rights are heightened. Lenders to resource developers may require the right to explore and exploit as security for loans to establish, among other things, production facilities, and will have to know in what form to cast this security. Depending upon the nature of the developer's rights, the security may take the form of either a real property mortgage or an assignment of contractual rights. However, internal legislation concerning mortgages may be inconsistent with legislation concerning assignments, which may contain mutually exclusive requirements. For these reasons, different creditors or bankrupt holders of continental shelf exploration and exploitation rights may have different priorities, depending on the nature of these rights.

Proper characterization of continental shelf rights acquired under international law will also assist in treaty negotiations and in resolution of disputes among nations. Petroleum reservoirs straddling international boundaries provide perhaps the best illustration. Whether one coastal state can legitimately complain if an adjacent state extracts all the oil or gas from a reservoir which extends to its continental shelf depends upon the nature and extent of the rights of that state under international law. As will be seen, several treaties have been negotiated between adjacent coastal states to deal with the orderly exploitation of common reservoirs. However, the same willingness to agree may not be present where common reservoirs straddle the two hundred mile limit and where the Seabed Authority seeks to enforce benefits for all mankind under the 1982 Law of the Sea Convention (1982 Convention).²

**DOMESTIC CHARACTERIZATION**

Interests in undisturbed hard minerals are treated as real property interests throughout the common law countries.³ Even though these interests involve severance of the minerals from the soil and their instantaneous metamorphosis into chattels,⁴ and even though the re-

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¹ See, e.g., Continental Shelf Act, 1964, ch. 29 (the United Kingdom).
⁴ See, e.g., Atlantic Concrete v. MacDonald, 12 N.S.R.2d 179 (1975).
moval and consumption of the minerals from the land is contrary to the general basis of permanence and indestructibility upon which the laws of real property depend, the intimate relationship between earth and mineral has prompted the unchallenged characterization of hard mineral interests as real.

The migratory nature of oil and gas has led to less certain legal definition. Jurisprudential analogies to flowing water and wild animals have led certain courts to characterize oil and gas in situ as incapable of ownership; no title can be asserted until the hydrocarbons have been reduced to possession. The geological reality, however, is that hydrocarbons do not wander as freely as underground rivers or as forest beasts; they are trapped in reservoirs under caps of non-porous materials. Subject to one important qualification, the courts in most of the United States, in Canada, and in England recognize full rights of ownership in oil and gas in situ. So long as the reservoir is entirely contained within the boundaries of a single owner, the hydrocarbons located therein will not migrate beneath the lands of neighbors. Where a reservoir, however, is divided by a boundary plane, the courts in jurisdictions which recognize in situ ownership, acknowledge that an owner's rights are lost if the hydrocarbons migrate beyond his boundary plane to the lands of his neighbor. Each adjoining landowner of a common reservoir has the right to produce hydrocarbons from that reservoir, and any hydrocarbons recovered from a well on one owner's side become the property of that owner. The judicial characterization of full rights of ownership is therefore subject to the rule of capture.

The purpose of this treatment of on-land oil and gas in situ is to examine those aspects which can be usefully compared with the more limited rights a coastal state enjoys in its continental shelf. There are only two basic land theories of ownership: the non-ownership theory arising from the flowing water and wild animal analogies and the full ownership theory subject to the rule of capture, which is based on a better understanding of petroleum geology. An often-mentioned third theory, the so-called "qualified ownership" or Pennsylvania theory, is not a characterization of the rights which an oil explorer receives under a standard oil and gas lease from the original

7. See cases cited supra note 6.
owner. Courts in most jurisdictions have recognized that an oil and gas lease is not anything like a lease in the traditional surface landlord-tenant relationship; instead it is a lesser qualified real property right—a *profit à prendre*—which comprises the right to enter the surface, to explore for, to sever from the realty, and to remove the "leased" substances. The lessee's only rights to the hydrocarbons in place are the rights to search for them and to remove them from the realty. Title vests in the lessee only when the hydrocarbons are brought under the possession and control of the lessee. Although not a true case of primary ownership, this qualified theory will be seen to bear certain similarities to rights of a coastal state to explore and exploit the natural resources of its continental shelf.

**THE DOCTRINE OF THE CONTINENTAL SHELF**

Much has been written on the development of the continental shelf doctrine. While nations over the centuries have alternatively made expansive and narrow claims to the seas beyond their coasts, the origin of the modern doctrine is often said to be the Truman Proclamation of 1945, by which President Truman proclaimed:

> Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and seabed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control.  

"Appurtenance" in the legal context is a word normally associated with the incidents of real property, and it is used in the Truman Proclamation to indicate that the basis for the claim of jurisdiction is that the continental shelf is a prolongation of the land mass of the United States. One of the recitals in the Proclamation makes this clear: "[T]he continental shelf may be regarded as an extension of the land mass of the contiguous nation and thus naturally appurtenant to it . . . ."  

The United States thus laid claim to an interest in the minerals in place in the continental shelf—a real property interest. The Truman Proclamation carefully limits the claims to the natural re-

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12. Two statements concerning the resources of the subsoil and seabed of the continental shelf are made in the Truman Proclamation: the United States 1) regards them as appertaining to the United States, and 2) regards them as subject to United States control and jurisdiction. Two statements concerning the resources of the subsoil and seabed of the continental shelf are made in the Truman Proclamation: the United States 1) regards them as appertaining to the United States, and 2) regards them as subject to United States control and jurisdiction. Mouton further states: "[I]n claiming that the resources of the subsoil appertain to the United States, this State appropriates a part of the subsoil and in fact by exploiting these resources acts as owner . . . ." Id. at 280.
sources by expressly preserving the freedom of the high seas above the continental shelf.

Following the lead of the United States, other countries promptly declared entitlement to their continental shelves, but many claimed vastly greater rights, including full sovereignty over the water column, the submarine areas, and the superjacent air space.\(^{13}\) Consistent with its position of more limited jurisdiction, the United States advocated the use of the word “exclusive” to qualify the nature of the right of a coastal state to explore and exploit its continental shelf.\(^{14}\)

In supporting the use of the word “exclusive” rather than “sovereign” to establish the rights of a coastal state in its continental shelf resources, the United States was not attempting to narrow the nature of the rights it had itself claimed in 1945; it was attempting to ensure that the claims to the resources did not carry with them, by implication or extension, any rights to the waters comprising the high seas or the superjacent airspace.

Article 2 of the Geneva Convention on The Continental Shelf (the Convention) forged a workable compromise:

1. The coastal State exercised over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources.
2. The rights referred to in paragraph 1 of this article are exclusive in the sense that if the coastal State does not explore the continental shelf or exploit its natural resources, no one may undertake these activities, or make a claim to the continental shelf, without the express consent of the coastal State.

\(^{13}\) See [1966] Análtes de legislación Argentina (Argentina’s Law on Sovereignty over Seas and Seabed of Dec. 29, 1966):

- Article 1: The sovereignty of the Argentine Nation extends to seas contiguous to its territory out to a distance of two hundred marine miles . . . .
- Article 2: The sovereignty of the Argentine Nation likewise extends to the seabed and subsoil of the submarine zones contiguous to its territory . . . .

\(^{14}\) It was well known, of course, that certain states desired that rights with respect to the continental shelf should affect the legal status of the waters above the shelf and the superjacent airspace. In that light, at least, it seemed desirable to some states, including the United States, to ‘play it safe’ by avoiding the use of the term ‘sovereignty’, or even ‘sovereign rights’ in defining the relation of the coastal state to the continental shelf.

The United States proposed . . . the deletion of the word ‘sovereign’ and the substitution of the word ‘exclusive’. [I]n introducing the Delegation’s proposal, the U.S. representative made it clear that the U.S. Delegation was opposed to anything which might even remotely cast doubt upon the status of the superjacent waters and airspace.

3. The rights of the coastal State over the continental shelf do not depend on occupation, effective or notional, or on any express proclamation.

4. The natural resources referred to in these articles consist of the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil.1

Thus, with adequate safeguards expressly set out in the Convention, the United States acceded to the use of the adjective “sovereign”. It is submitted that “sovereign rights” are at least as indicative of real property rights as is the language of the Truman Proclamation.16

Perhaps the leading judicial analysis of the continental shelf doctrine occurred when the Convention, which came into force on June 10, 1964, was considered in 1969 by the International Court of Justice in the North Sea Continental Shelf cases.17 Although the issue before the Court was the delimitation of the continental shelf boundaries of several countries surrounding the North Sea, the judgment addressed the nature of the rights to be exercised within those boundaries.18

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16. See supra note 11 and accompanying text. In a 1956 article, D.P. O'Connell considered whether a claim to sovereignty over the shelf is equivalent to a claim to property in it. He stated:

When, by design, a claim is tantamount to an exercise of the incidents of ownership, it seems highly artificial to erect a distinction between imperium and dominium, and, indeed, no such distinction is in fact erected either in theory or practice. The bulk of opinion favours the view, for example, that sovereignty over the territorial belt imports a proprietary title . . . . It seems to be impossible to distinguish in strict jurisprudence between the interest a state has in territorial waters, and that which it claims to have in the continental shelf.

O’Connell, Sedentary Fisheries and the Australian Continental Shelf, 49 AM. J. OF INT’L LAW 185 (1955).

Three of Professor O’Connell’s conclusions relate to the nature of the right of a state to its continental shelf:

4. International law invests the littoral state with the right to claim full sovereignty over the shelf.
7. In general, and unless municipal law otherwise provides, imperium and dominium coalesce in a claim to the continental shelf.
8. A claim to the continental shelf is accordingly effective to appropriate to the littoral state the mineral deposits of the shelf and all marine organisms that can be legally assimilated to it.

Id. at 198-200.
18. Id. R. Y. Jennings considered some of the implications of the judgment of the International Court of Justice in a 1969 article:

In seeking the basic principle on which this concept of an area of national jurisdiction over seabed and subsoil rests, the Court in its judgment returns to President Truman’s historic Proclamation of September 28, 1945, which, said the Court, has a “special status” as “the starting point of the positive law on the subject,” in its enunciation of the doctrine that a coastal State has an original,
The judgment established that the application of strict equidistance principles will not result in continental shelf boundaries which justify the fundamental right of the coastal state in the shelf. The characterization of continental shelf jurisdiction as an extension of coastal state sovereignty over its land territory supports the thesis that continental shelf rights are real property rights.

While cast in language which resembles the qualified profit à prendre, the limitation of the shelf rights to the exploration and exploitation of natural resources is not intended to restrict activities natural and exclusive (in short, a vested) right to the continental shelf off its shores.


Jennings then considered the text of the Preamble to the Proclamation and concluded that the justification for the Proclamation concerned the geological and geographical relationship of fact between the land mass of the coastal state and its continental shelf resources. Jennings points out the importance of that relationship which was recognized by the International Court:

*It is the same idea of a relationship of fact that is now authoritatively restated and relied upon by the International Court when it said that the rights of the coastal State in respect of the area of continental shelf that constitutes a natural prolongation of its land territory into and under the sea exist ipso facto and ab initio, by virtue of its sovereignty over the land, and as an extension of it in an exercise of sovereign rights for the purpose of exploiting its natural resources. In short, there is here an inherent right.*

*The continental shelf jurisdiction is not only an appurtenance of the coastal State but an inalienable appurtenance, which belongs simply by reason of the State's sovereignty over its land territory, being indeed an extension of it.*

*The institution of the continental shelf has arisen out of the recognition of a physical fact; and the link between this fact and the law, without which that institution would never have existed, remains an important element for the application of its legal regime. The continental shelf, we are told, constitutes a natural prolongation of its land territory into and under the sea* (emphasis added).

*The appurtenance of the shelf to the countries in front of whose coastlines it lies, is therefore a fact, and it can be useful to consider the geology of that shelf in order to find out whether the direction takes by certain configurational features should influence delimitation because, in certain localities, they point-up the whole notion of appurtenance of the continental shelf to the State whose territory it does in fact belong.*
undertaken with respect to the resources or interests in the resources themselves. The limitation is intended to prevent dilution of the principle of the freedom of the high seas; so long as these traditional freedoms are preserved, the coastal state may exercise any right, including *in situ* ownership, in the natural resources of the continental shelf which will facilitate their development.

**Subsequent Conduct Among Nations**

The decision of the International Court makes it clear that the rights to the resources of the continental shelf now exist as a matter of customary international law, developed from the conduct of nations and independent of the Geneva Convention. Accordingly these rights are recognized without regard to whether or not a particular coastal state has ratified the 1958 Convention.

The fifteen years subsequent to the North Sea Shelf cases constitute a period during which the basic principles governing the continental shelf were strengthened. The confirmation of Article 2 of the 1958 Geneva Convention, through the virtually identical language of article 77 of the 1982 Convention, demonstrates the solidity and consistency of the rights a coastal state enjoys under international law in its continental shelf resources. Furthermore, the characterization of those rights as real property rights is supported by the provisions of several treaties of petroleum reservoirs which straddle international boundaries. In light of these Conventions, Treaties, and International practices, it is difficult to imagine a consistent theory of coastal state rights in the natural resources of its continental shelf which does not admit of substantial rights in the oil and gas in place.

**Subsequent Domestic Conduct of Nations**

Finally, we turn to the internal treatment by coastal states of the natural resources of their continental shelves.

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In a series of bilateral treaties the North Sea states have developed an approach which:

1. recognizes a state's interest in the petroleum deposits straddling international boundaries;
2. recognizes the migratory nature of oil and gas, not by adopting the rule of capture found in parts of the United States and Canada, but by imposing on the interested states an obligation to negotiate a joint operating and revenue sharing agreement under which the deposit will be produced; and
3. in one case, recognizes one state's right to compensation if the neighbor state unilaterally develops and takes production from the common reservoir.

Ouorato, *supra*, at 329 n.15.
United States

As we have seen, the Truman Proclamation is the basis for the appropriation of shelf resources to the United States. Although international law regards the Proclamation as the starting point for the development of the modern doctrine of continental shelf rights, the United States regards it as part of a chain of executive declarations setting forth national claims. Following the Proclamation, the Outer Continental Shelf Lands Act was enacted in 1953. It sets out the claim of the United States not only to the natural resources of the shelf but to the seabed and subsoil themselves: "It is hereby declared to be the policy of the United States that the subsoil and seabed of the outer Continental Shelf appertain to the United States and are subject to its jurisdiction, control and power of disposition as provided in this Act." None of the state-federal offshore jurisdiction cases considered rights recognized under international law. Neither the Geneva Convention on the Continental Shelf nor customary usage is cited as any source of national rights. It is clear, however, that the Executive Branch of the United States Government had international law in mind when it framed its complaint against the states of the Eastern seaboard in April 1969. The complaint alleged that:

The United States is now entitled, to the exclusion of the defendant State, to exercise sovereign rights over the seabed and subsoil underlying the Atlantic Ocean, lying more than three geographical miles seaward from the ordinary low-water mark and from other limit of inland waters on the coast, extending seaward to the outer edge of the continental shelf, for the purpose of exploring the area and exploiting its natural resources.

The United States Supreme Court decided in favor of the federal

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20. As Mr. Justice Black, delivering the opinion of the Supreme Court of the United States in the first of the “state v. federal government contests” for offshore resource jurisdiction stated:

There are innumerable executive declarations to the world of our national claims to the three mile belt, and more recently to the whole continental shelf

... The latest and broadest claim is President Truman’s recent proclamation that the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control...

22. Id.
24. Id. at 517.
government, basing its decision on earlier decisions involving California, Texas, and Louisiana.

While not relying on international law, the United States is largely responsible for the international law development of the continental shelf principle, and it is clear that United States practice is consistent with the characterization of the rights to the resources of the continental shelf as real property rights.

Canada

In the recently decided *Hibernia Reference*, the Supreme Court of Canada found that the federal government alone exercises the rights to explore and exploit that portion of the continental shelf off the coast of Newfoundland where the rich Hibernia oil field has been discovered. Two passages from the opinion of the court reflect a fairly narrow interpretation of the continental shelf rights of coastal states.

These passages demonstrate that continental shelf rights are not property rights in the normal sense and are not founded upon the normal sovereignty which arises through the state's occupation of dry land. Rather, they arise through the natural but extra-territorial association with the land mass. This differentiation has important implications for the jurisdictional claims of the two levels of govern-

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26. First, in the *North Sea Case*, the International Court of Justice (the World Court) referred to the notion of appurtenance: “[T]he right of the coastal State to its continental shelf areas is based on the sovereignty of the land domain of which the shelf area is the natural prolongation into and under the sea.” *Hibernia*, 1984 S.C.R. 385, 395-96 (quoting North Sea Case, 1969 I.C.J. 3, 29).

Continental shelf rights arise as an extension of the sovereignty of the coastal state, but it is an extension in the form of something less than full sovereignty. The World Court referred to the “title” in the continental shelf and said the shelf may be “deemed” to be part of the territory of the coastal state in a certain sense. *Id.* (citing the North Sea Case, 1969 I.C.J. 3, 31). But in the ordinary meaning of the term, the continental shelf is not part of coastal state territory. The coastal state cannot “own” the continental shelf as it can “own” its land territory. The regulation by international law of the uses to which the continental shelf may be put is simply too extensive to consider the shelf to be part of the state territory. International law concedes dominion to the state in its land territory, subject to certain definite restrictions. By contrast, in the continental shelf the limited rights that international law accords are the sum total of the rights of the coastal state.

Secondly, at international law, then, the continental shelf off Newfoundland is outside the territory of the nation state of Canada. Because, as a matter of municipal law, neither Canada nor Newfoundland purports to claim anything more than international law recognizes, we are here concerned with an area outside the boundaries of either Newfoundland or Canada. In other words, we are concerned with extra-territorial rights.

Much of the argument in the present case is based on the assumption that continental shelf rights are proprietary. We do not think continental shelf rights are proprietary in the ordinary sense. In the words of the 1958 Geneva Convention, they are “sovereign rights” and they appertain to the coastal state as an extension of rights beyond where its ordinary sovereignty is exercised. In pith and substance they are an extra-territorial manifestation of, and an incident of, the external sovereignty of a coastal state. *Id.* at 396.
ment in the federal system of Canada, where only one level, the federal government, has extra-territorial rights and powers. These excerpts apparently were not intended to characterize continental shelf rights as proprietary or non-proprietary, but were intended to demonstrate that if proprietary, their source is not the ordinary territorial source.

If these remarks of the Supreme Court of Canada are interpreted as an inclination away from the property right characterization, a similar interpretation may be made of the federal legislation governing offshore petroleum. No complete real property rights to the oil and gas in situ are conferred by this legislation, though the combined rights do appear similar to the traditional oil and gas lease rights to search for, remove, and sell hydrocarbons. These rights (profit à prendre) are characterized in law as limited real property rights.

**United Kingdom**

The United Kingdom neatly avoided characterization of its rights recognized under international law. The Continental Shelf Act provides: "Any rights exercisable by the United Kingdom outside territorial waters with respect to the seabed and subsoil and their natural resources, except so far as they are exercisable in relation to coal, are hereby vested in Her Majesty." Through incorporation by reference to the Petroleum (Production) Act of 1934, the Crown may grant licenses to search, bore, and remove any petroleum beyond the territorial sea in which the United Kingdom has rights. Professor Daintith has taken the view that although on land the Crown must be considered the owner of petroleum in situ, on the continental shelf the Crown has a lesser interest.

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27. The Canada Oil and Gas Act provides in §§ 9 and 17 that:
9. An exploration agreement confers, with respect to the relevant Canada lands, the right to explore for and the exclusive right to drill for oil or gas, the exclusive right to develop those Canada lands in order to produce oil or gas and the exclusive right subject to compliance with the other provisions of this Act, to obtain a production license.
17. A production licence confers, with respect to the relevant Canada lands, the exclusive right to produce oil or gas and, subject to section 48 and to the payment of any applicable royalty to Her Majesty in right of Canada, confers title to the oil and gas so produced. Oil & Gas Act, CAN. REV. STAT. ch. 81 (1982).
29. Supra note 1.
30. Petroleum (Production) Act, 1934, ch. 36.
Peter Nachant Swan propounds the theory that petroleum in situ beneath the North Sea is incapable of ownership. It is submitted that this view is not accurate and that the views of Professor Daintith, while accurately describing the rights of a licensee under the 1934 and 1964 Acts, do not adequately characterize the more comprehensive rights of ownership of continental shelf resources of the coastal state.

Other Countries

D. P. O'Connell has characterized as proprietary the right of a coastal state to the resources of its continental shelf, and the Proclamations by the Australian government in 1953 recognized the principle of international law that: "[T]here appertain to a coastal state or territory sovereign rights over the seabed and subsoil of the continental shelf contiguous to its coast for the purpose of exploring and exploiting the natural resources of that seabed and subsoil."  

The attitude of the People's Republic of China toward the rights of a coastal state in its continental shelf which is referred to as its economic zone has been expressed as follows: "In the case of an exclusive economic zone, the coastal state mainly enjoys ownership over the economic resources therein, including living resources and seabed natural resources . . . ."  

More recently, Tang Changxu of the China National Offshore Oil Corporation related the same philosophy in commenting on the 1982 Regulations on the Exploitation of Offshore Petroleum Resources in -

It was the view of the UK Government spokesman [Mr. Peyton] in debates on the Bill that this term did not confer rights of ownership of petroleum in situ and other natural resources of the seabed. It would seem, however, that the rights must be of a proprietary character - otherwise it is hard to understand how the government can grant an exclusive licence to search for and get offshore petroleum and why there is no statutory rule prohibiting unauthorized offshore drilling. The official view of the relationship of the Crown with the resources in situ would therefore appear to be that it possesses a right akin to that recognized in Pennsylvania and California as 'qualified ownership' or to a profit à prendre of English law.

Id.


Although the licensees may speak of "their" reserve and "their" interests in a given field, this phraseology is somewhat misleading. They have no rights over the oil or gas in situ. It is only after the minerals are won and saved, i.e., extracted, that they become an asset of the joint venture and only after they are at the delivery point that they become the property of any individual participant. It is not possible to collateralize the reservoir itself . . . .

Id.

33. O'Connell, supra note 16, at 191 (quoting Australian Commonwealth Acts ch. 2k563, § 56 (1953)).

Cooperation with Foreign Enterprises: “All petroleum resources in the internal waters, territorial sea, and continental shelf of the People’s Republic of China and in all sea areas within the limits of national jurisdiction over the maritime resources of the People’s Republic of China are owned by the People’s Republic of China.”

The Norwegian 1963 Petroleum Code stipulates that “the right to submarine natural resources (in the Norwegian sector of the North Sea) is vested in the State.” Mr. Ole Lindseth representing the Ministry of Petroleum and Energy in Oslo, stated that this “basic statement implies that the petroleum belongs to the nation . . . .”

This survey reveals the differing attitudes of various coastal states in their domestic offshore petroleum legislation toward the rights they have acquired in the resources of the continental shelf. While England and Canada have cautiously refrained from asserting in situ rights, they are in the minority. Perhaps these countries prefer a system of allocation of petroleum rights based on a contract which is perhaps more flexible, and more easily and cheaply amended unilaterally, than one based on the certainty of real property rights.

**CONCLUSION**

If an analysis of the nature of continental shelf rights commences with a consideration of the text of Article 2(1) of the 1958 Geneva Convention, words traditionally limiting the scope of similar rights to contractual licenses or profits à prendre quickly appear and a narrow view of the continental shelf rights emerges. This is too literal an approach, one which does not recognize the different concerns which international law addresses in setting the extent of continental shelf rights.

The correct approach is first to determine the conflicting policies and interests which the coastal states were and are attempting to balance. In the case of the rights to continental shelf natural resources, there is the desire of the coastal state to develop petroleum and other mineral deposits on the one hand, and the more widespread conviction to maintain the right of free passage through the

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37. Id.
water column and air space beyond states territorial waters on the other.

Protection of high seas freedom has been achieved through express prohibition of exclusive water column and airspace interests and express prohibition of undue interference with navigation or submarine cable and pipeline installation. The conflicting interests are therefore appropriately balanced to permit utilization of the continental shelf. The characterization of these rights of states in the natural resources will not affect that balance and may afford the coastal state, its chosen explorers, and the explorers’ lenders more effective and more secure rights. If this characterization leads to a more useful system for development of natural resources of the continental shelf without being detrimental to competing policies, its acceptance should be encouraged as a principle of international law. From the above reviewed authorities, it is clear that the characterization of the rights of a coastal state to continental shelf natural resources as real property rights is a well-developed doctrine.