Abstract
Possible US and allied occupation of Iraqi oil fields following any military action against Saddam Hussein would raise a variety of interesting legal issues under the international law of belligerent occupation. With specific regard to Article 55 of the 1907 Hague Regulations on the Laws and Customs of War on Land, an occupant’s treatment of state-owned immovables, such as oil reserves, must accord with the rules of usufruct. In the essay that follows, the authors look at how the rules of usufruct affect three particular matters that have not previously received extensive consideration: (1) the latitude of an occupant to employ sophisticated producing technologies that increase the degree to which an oil field may be swept clean; (2) the permissibility of increasing the rate or volume at which oil is produced from a particular field; and, (3) the uses to which an occupant may put either the oil produced or the proceeds from sales of such. The authors suggest that a usufructuary is permitted to exercise a rather broad, though not unlimited, discretion in connection with selecting extraction technologies and rates of production. As for how the oil produced or the proceeds from such may be used, it is suggested that international law forbids any use that can be seen as being for the enrichment of the occupant.

1 Introduction
The law of belligerent occupation is replete with enough fascinating issues to keep an energetic lawyer riveted for well more than a single lifetime. In the context of the


** Professor of Law and Director, Comparative and International Law Center, University of Tulsa; W. B. Cutting Fellow in International Law (1980–1981) and JSD (1987) Columbia University.

international situation regarding Iraq, several such issues present themselves. The specific focus of this short essay, however, concerns the narrow and limited question of the rights and responsibilities connected with possible US and allied occupation of the Iraqi oil fields. No consideration is given to the question of whether UN approval of the use of military force against Iraq would reconfigure those rights and responsibilities, or whether some current scheme, such as the UN’s Oil-for-Food programme, or a scheme, the existence of which has yet to receive public acknowledgement, may alter the rights and responsibilities of the occupying power.

1 Just in the context of occupation of the oil fields, there may be issues regarding: protective seizure of the fields to prevent destruction comparable to that in Kuwait during the Persian Gulf War in 1991; the circumstances under which privately owned oil in storage, or reserves that may be designated as private, can be accessed by an occupant; the ability of an occupant to take the necessary commercial actions to rehabilitate the oil fields and get them up and running; an occupant’s authority to oversee and facilitate, or modify and completely alter, the legal system that would be charged with resolving civil and commercial disputes that may arise in connection with occupation of the oil fields; the authority of an occupant to dissolve and terminate business relationships between existing commercial enterprises, many of which may be apparatuses of the sure-to-be eliminated ruling elite in the state occupied; the right of an occupant to establish the conditions under which a provisional, and then permanent, government would eventually resume control of the oil fields.

2 In regard to Iraq’s oil reserves, they are estimated in the vicinity of 112 billion barrels. See International Petroleum Encyclopedia (2002) 99. There are major fields with major reserves in the Kurdish north, the central portion of the country, and in the south around Rumalia, Majnoon, and West Qurna. Currently Iraq produces approximately 2.4 million barrels per day, under very difficult circumstances. See Energy Information Administration, U.S. Dept of Energy, www.eia.doe.gov/emeu/cabs/iraq (2001 daily average; current sustainable capacity is thought to be at least 2.8 million, and Iraq had announced a goal of producing 3.1 million by the end of 2002) (accessed 10 Dec. 2002). Saddam Hussein has estimated that in optimum conditions Iraq could produce up to 6 million barrels per day. Given the fact that he was responsible for Iraq’s oil programme in the 1970s — prior to his taking over the reins of the presidency — he is undoubtedly more knowledgeable than most heads of state. See generally U.S. Federal Energy Administration, The Relationship of Oil Companies and Foreign Governments (June 1975), at 81.


presumably for a variety of reasons, the Bush administration has chosen not to highlight the question of oil field occupation in its public statements regarding Iraq.6 But since the law of belligerent occupation as applied to oil fields5 was last examined nearly 30 years ago in connection with Israeli exploitation of oil in both the Sinai and the Gulf of Suez after the 1973 October War,6 new insights regarding the arguments proffered on that body of law and advancements in the technology for developing and producing oil reserves all suggest the importance of revisiting this sure-to-be controversial subject.

In connection with the very particular question taken up in this essay, it seems safe to say that the settled law applicable to an occupation of the Iraqi oil fields includes the notions that the occupant is permitted to regulate commerce in the occupied territory,8 take possession of financial instruments, stores and all movable property of

---

6 At least two reasons spring readily to mind. First, France, Russia and other European nations have long had business relations with the Iraqi oil industry, and any suggestion that matters concerning control of the Iraqi oil fields were near the head of the US agenda could, especially given the potential for disagreement among allies, complicate the Bush administration’s efforts to build a military coalition against Saddam Hussein. Second, too much public attention focused on matters concerning occupation of the oil fields could, in the minds of some, corroborate suspicions that military action against Iraq was about oil, not Saddam Hussein and weapons of mass destruction. It should be noted that in an interview on Public Broadcasting Services ‘The News Hour with Jim Lehrer’, 20 Feb. 2003, U.S. Secretary of Defense, Donald Rumsfeld indicated Iraqi oil belonged to the Iraqi people and post-war handling of the petroleum would be consistent with that idea. For a critique of the Bush administration’s reticence on this point, see R. Dobie Langenkamp, ‘Iraq: Finding Room for the Law in a War Debate’, Middle East Economic Survey, 24 Feb. 2003, at A4.

7 There is little likelihood that the US could make a persuasive argument that action against Iraq would not leave it in the position of a belligerent occupant. The fact that the US may act under clear formal authorization from the United Nations, or on the basis of its interpretation of earlier United Nations resolutions concerning Iraq, would not seem to alter this conclusion. On the applicability of the law of war to United Nations operations, see supra note 3. Moreover, in view of the fact that there is no doubt that the government of Iraq has had control over its sovereign territory, it could not be maintained that it is open and available for any nation to assert control. For discussion of an attempt by another to make the argument that, in an earlier context, it was not a belligerent occupant, see A. Gerson, Off-Shore Oil Exploration by Belligerent Occupant: The Gulf of Suez Dispute, infra note 8, at 726–727 (unwillingness to concede applicability of law of belligerent occupancy to Sinai because of implicit recognition of Egyptian sovereignty). Regarding arguments disputing belligerent occupant status generally, see E. Benvenisti, The International Law of Occupation (1993), at 211–212.


9 On the matter of economic regulation by a belligerent occupant and a discussion of the relevant provisions from the Hague Regulations, see generally E. A. Feilchenfeld, The International Economic Law of Belligerent Occupation (1942). For an interesting and current examination of the general law of belligerent occupation, especially with regard to post-World War II occupations, see Benvenisti, supra note 7.
the state which may be used for operations of war, and requisition private movable property. Further, the 1907 Hague Regulations on the Laws and Customs of War on Land provide that an occupant is also entitled to use all immovable property of the occupied state. Article 55’s declaration in this respect indicates that ‘the occupying State shall be regarded only as administrator and usufructuary of public buildings, real estate, forests, and agricultural estates belonging to the hostile State’ and that the occupant ‘must safeguard the capital of these properties, and administer them in accordance with the rules of usufruct’. Under Article 55, the earlier Sinai and Gulf of Suez exploitation raised the problematic questions of whether seized oil wells, long considered immovable property, could be worked by occupying forces, and whether new wells could be drilled in previously undeveloped fields. The sophisticated legal analyses emerging from that Israeli occupation resulted in thoroughly considered views, all of which endorsed the belligerent occupant’s right to exploit oil fields, to one degree or another. At one end of the spectrum was the position that, under the rules of usufruct, only existing wells lawfully could be produced. At the other end it was said that only wanton waste or destruction of oil resources by the occupant was forbidden and, since new activity in developed or undeveloped oil fields was not aimed at the requisite ‘spoliation’ of oil resources, such activity was clearly permitted. Between these positions, yet situated closer to the latter view approving of new oil drilling activity, was the understanding that the rules of usufruct seemed open to all efforts having the effect of enhancing the value of occupied oil fields.

The intervening decades have managed to sharpen the relevant legal issues regarding the conduct of oil field occupants. Questions now seem to exist about whether those who had earlier examined the law in connection with Israel’s activities in the Sinai and the Gulf of Suez provided a portrayal adequately accounting for all the key uncertainties that both time and the complexity of the oil business would eventually reveal. Three uncertainties in particular provide the focus of this essay. The first derives from the variety of views on existing versus new wells and development activity prompted by Israel’s earlier occupation, and it concerns specifically the legal treatment to be accorded to techniques that would allow one to ‘sweep’ an existing

---

12 See Regulations Respecting the Laws and Customs of War on Land, Art. 55, annexed to Hague Convention (No. 4) Respecting the Laws and Customs of War on Land, signed 18 Oct. 1907.
13 *Ibid.*, at Art. 55. This provision had its early origins in the first modern code of belligerent occupation, the ‘Lieber Code’, drafted by theorist Frances Lieber, ‘for use by Union troops in their occupation of the Confederacy. Art. 31 of that Code essentially provided that a victorious army . . . sequesters for its own benefit or that of its government all the revenues of real property belonging to the hostile government or nation. Title to such real property remains in abeyance during occupation’. See generally D. A. Graber, *Development of the Law of Belligerent Occupation 1863–1914* (1968).
15 See Claggett and Johnson, *supra* note 8; Cummings, *supra* note 8; Dep’t of State Memorandum, *supra* note 8.
What Happens to the Iraqi Oil?

2 Sweeping Currently Worked Oil Fields Clean

Oil field production operations designed to maximize recovery can take several different forms. They can involve so-called ‘infill’ activity, in which new wells are drilled to further access a deposit under current exploitation.\(^{18}\) They can also involve ‘directional’ or ‘sidetrack’ drilling, in which the path of an existing well is varied in order to reach different portions of an oil reservoir.\(^{19}\) Additionally, in an attempt to increase production without the drilling of new wells, existing wells may be reworked by replacement of down-hole pumps and tubing, acidization, re-fracing, or by the injection of water, surfactants, CO\(_2\) or natural gas.\(^{20}\) In all such cases, the basic idea is to extend the productive life of the deposit by employing technologies providing increases in the amount of oil recoverable from a particular field.

The broad perspective on what a belligerent occupant may do under Article 55’s reference to the rules of usufruct\(^{21}\) would clearly support ‘infill’ activity. To that way of reading the controlling rules, the drilling of new wells, irrespective of whether in

---


\(^{19}\) See Langenkamp, *supra* note 18, at 408. See also Gerding, *supra* note 18, at 166 (also referred to as ‘slant drilling’).

\(^{20}\) See Gerding, *supra* note 18, at 97, *et seq.* (water injection for pressure maintenance referred to as ‘waterflooding’; steam injection referred to as ‘steamflooding’ or ‘huff and puff’; and CO\(_2\) or other gas injection procedures known as ‘secondary or tertiary recovery’). ‘Fracing’ is the process of injecting a fine-grained sand into the production formation under high pressure.

\(^{21}\) See authorities cited *supra* notes 16 and 17.
currently exploited or wholly unexploited fields, is permitted. The drilling of ‘infill’ wells is more problematic under the restrictive view of usufruct, however. Though not crystal clear, that view can be understood as prohibiting not just the drilling of wells in oil fields that were undeveloped at the time of occupation, but also new wells in fields already under development. To the extent that the latter implication is pressed, the persuasiveness of the restrictive view would seem subject to some doubt. If good engineering practice indicates that drilling an infill well is preferable to a mere pressure maintenance technique operated through existing wells, how could a usufructuary fail to do so without being seen as having acted less than reasonably?

It should be kept in mind that, while there may be much to support the persuasiveness of the general proposition, inherent in the restrictive view, that there is to be ‘no new development’, the language of Article 55 requires only that property under the control of the belligerent be ‘administer[ed]’ in accordance with the rules of usufruct, including the mandate that the belligerent must ‘safeguard the capital’. One distinguished legal authority interpreted that requirement as prohibiting a belligerent from ‘appropriat[ing] or alienat[ing] public immovable property’, but permitting ‘appropriat[ion] [of] . . . the produce’ of such property. A major work of two other renowned international scholars restated it as prohibiting an occupant from ‘wantonly dissipat[ing] or destroy[ing] the public resources’ or ‘permanently (i.e., for the indefinite future) alienat[ing] them (salva rerum substantia)’. The British Manual of Military Operations suggests the interpretation that the usufructuary ‘must not exceed what is necessary or usual’ in the working of the relevant resource. As understood in the civil law tradition, from whence Article 55’s reference is derived, the required administration and capital preservation have been described as authorizing the ‘using and taking of fruits or property belonging to another — without the right of destroying or changing the character of [the] thing, and lasting only as long as the character remains unchanged’. This is consonant with the English common law tradition which, under the parallel ‘open mine’ doctrine governing life tenancies, has been described by Blackstone as prohibiting activities

22 See the restrictive view’s qualification on this assertion offered in the text accompanying infra note 24.
23 See authorities cited supra note 15. Claggett and Johnson indicate the impermissibility of new wells, but do so in the context of a dispute regarding the development of the previously undeveloped Gulf of Suez area. Cummings also indicates impermissibility, but does so in regard to the previously worked Abu Rhodeis fields in the Sinai.
24 If unexploited reserves exist between two wells, an ‘infill’ well in between may be superior in all respects to an attempt to produce those reserves with the injection of fluids in one of the existing wells.
25 Art. 55 of Hague Regulations.
that are a ‘detriment to the inheritance’, that inheritance being, specifically, the property to be returned to the original owner or sovereign.11

Clearly, any candid evaluation of whether such descriptions of the law are sufficient to indicate that something akin to ‘infill’ drilling runs afoul of Article 55’s requirements would have to acknowledge substantial hesitancy. Indeed, in light of the breadth of concepts such as ‘administer’, ‘safeguard’, ‘necessary or usual’, ‘destroying or changing the character’, and ‘detriment’, at least some room would seem to exist for viewing new ‘infill’ drilling activity in a developed field as permitted under even the stingiest or cribbed reading of the rules of usufruct. After all, in the usual course of things, those in charge of exploiting an oil deposit would surely avail themselves of such an option. It is unlikely that another would be heard to suggest that the doing so amounted to a clear failure to ‘safeguard’ the deposit, or proved ‘[un]necessary or [un]usual’, or ‘destroy[ed] or chang[ed] [its] character’. Though it may be insisted that many statements can be found to the effect that the rule of usufruct permits only the working of mines or wells in existence at the commencement of occupation,12 the very language of Article 55 itself, and the way that language has been characterized by leading scholars, suggests that room is present to reasonably understand the use of customary and prudent life-extending practices, like ‘infill’ drilling, as within the ‘usual’, ‘non-destructive’ techniques one charged with safeguarding a developed oil field would readily employ.

With respect to well reworking, acidization, refracing, and injection techniques, all of which can take advantage of existing wells and avoid new drilling, possible limitations on oil field activities inherent in Article 55 would prove important under both the broad and the restrictive readings of the rule of usufruct. After all, whether one is concerned with an existing well, or a new well in an already developed or previously undeveloped field, the centrality of potential restrictions on the degree to which the oil deposit tapped can be fully produced is indubitably clear. Conduct otherwise thought lawful might be deemed beyond the realm of what Article 55 permits. Given that the techniques referenced herein can be employed without new drilling, they would appear less of a concern than ‘infill’ activity to proponents of the restrictive view. Surely, using existing wells to aid in the pumping of oil presents fewer problems than does the drilling of new ones. Nonetheless, to the extent that a belligerent occupant looks at increasing the lifetime total output from a particular field through the use of

---

11 See W. Blackstone, *Commentaries on the Laws of England* (1884), at 281–282. See also McClean, supra note 30, indicating that neither a life tenant under the open mine doctrine, nor a usufructuary, may ‘mine or quarry, except where this was a normal method of exploitation’ (emphasis added). Under some readings, this observation could be taken as suggesting something about the nature, character or manner by which exploitation is to take place.

12 It is often noted that classical Roman law stood for the proposition that a usufructuary could take the products of mines and quarries, but ‘only in so far as the mines and quarries were being worked at the commencement of the usufruct’. See C. Sherman, *Roman Law in the Modern World* (1937) 165. See generally Pugliese, ‘On Roman Usufruct’, 40 *Tulane L. Rev.* (1960) 523, at 546–547, indicating that a variety of civil codes made the opening of new mines or quarries impermissible. See also, J. Thomas (ed.), *A Systematic Arrangement of Lord Coke’s First Institute of the Laws of England*, vol. I, Book II, Ch. LIII, (1836), at 188, to the effect that ‘Digging for gravel, lime, clay, brick, earth, stone, or the like, or for mines of metal, coal, or the like, hidden in the earth, and were not open when the tenant came in, is waste . . .’
technological innovations, thereby acting on customary good petroleum engineering practice, the possibility that the rules of usufruct restrict the operator’s options merits at least brief consideration.

From what was alluded to earlier in connection with the permissibility of ‘infill’ drilling,33 there can be little question about the absence of tight and explicit controlling legal principles. In such a context, the strength of any suggestion regarding the meaning of a rule cast in terms as general as those regarding the rule of usufruct would seem influenced by the reasonableness of the suggestion. And given the legitimacy of concerns about the consumption of natural resources, would there not seem a modicum of appeal in the suggestion that resource deposits lawfully under development be exploited as thoroughly and efficiently as possible? Would it not seem more appropriate to read Article 55 as entitling an occupant to employ advanced technologies in the oil field than to compel reliance on production practices that result in inefficient and less than optimum extraction of the resources available in a certain deposit? In a world in which, to many, wastefulness of resources has come to exemplify modern existence, simply to state the question of whether a usufructuary is entitled by the law to rely on technologies that permit a more complete utilization of an oil deposit provides its own answer.

Beyond this, however, another reason exists for suggesting that Article 55, even though unclear, is best read as incorporating a permission for oil field occupants to employ reworking, acidization, refracing, injection and associate technologies. Specifically, the reason has to do with the avoidance of interpretations of the rule of usufruct that interfere with full utilization of existing wells, thereby inclining one towards the drilling of new wells in developed or undeveloped fields. This reason derives from the confluence of three of the most fundamental precepts governing belligerent occupancy: first, occupancy is a temporary condition;34 second, immovables are to be protected and returned at the end of the occupation;35 and third, produce issuing from the occupied immovable may be used by the occupying power during the occupation — the precept creating the divergence between the broad and the restrictive views on usufruct. Collectively, these precepts suggest, especially when it is recognized that some produce may be regenerative (e.g., timber, crops), while others, like oil, may be finite, that even complete and exhaustive utilization of finite resources in some identifiable deposits could be preferable to inefficient, quick-and-dirty tapping of such resources on a haphazard and widespread basis.36 Would it not seem reasonable to suggest that, in the case of exhaustible natural resources, one

---

33 See supra text accompanying notes 22–31.
35 See U.S. Army Field Manual on the Law of Land Warfare, infra note 64, at paras 400. 402. See also Graber, supra note 13, at 171 et seq.
36 It must be acknowledged that this argument seems unconvincing if one starts from the position that it is impermissible under the rules of usufruct to drill any new wells, including infill wells. However, it would certainly seem true that such an extremely restrictive view of the law would be at much greater peril of violation when coupled with a prohibition on practices like ‘directional’ drilling, reworking and well injection than if understood as accommodating such.
What Happens to the Iraqi Oil?

425

37 For a distinct, yet somewhat related, argument offered by the United States in the context of its objection to Israel’s efforts to exploit oil fields in the Gulf of Suez, see Dept of State Memorandum, supra note 8, at 746 (interpretations of Article 55 that provide incentives for occupation, or disincentives for termination of such, should be avoided).

38 See supra text accompanying notes 30–31.

39 See generally H. Williams and C. Meyers, Manual of Oil and Gas Terms (11th ed., 2000) 736; R. W. Hemingway, The Law of Oil and Gas (1971) 179. Open mine permits a life tenant to continue to appropriate minerals from a mine or well which was opened prior to the life tenancy’s commencement.

40 See Hemingway, supra note 39, at 183.

41 See ibid., at 368.

3 Limitations on Rate or Volume of Oil Field Production

The preceding section focused on whether the rules of usufruct limit a belligerent occupant’s freedom to use technologies allowing oil to be more completely swept from attractive way to reconcile the conflicting duty to protect immovable state property and the right of the occupant to use the produce from such, would be to understand the usufructuary as vested by Article 55 with authority to employ innovative technologies and customary good oil field engineering practices that help maximize resource recovery? Would it not seem reasonable to interpret the rules of usufruct as insisting on the use of technologies that compel an occupant to pursue practices that result in efficient tapping of an occupied power’s natural resources?  

‘Directional’ or ‘sidetrack’ drilling, which, as in reworking, injection, and associated practices, involves using an existing well bore, but accesses another portion of a petroleum deposit, as with ‘infill’ wells, would seem able to take full advantage of the arguments underpinning the lawfulness of those other activities. Mention of ‘directional’ drilling or ‘sidetracking’, however, provides a chance to proffer yet another reason suggesting the persuasiveness of interpreting Article 55 as supporting a right to employ any of the various sophisticated oil field development efforts referred to in this section. This reason draws on US domestic oil and gas law and, thus, may be instructive, but is surely not determinative, in regard to understanding whether the controlling international legal standards permit the use of such practices. Even in light of this caveat, the clarity of the US domestic law on the point that an owner of oil and gas rights for a limited term is vested with wide discretion in selecting among available technologies for exploiting the resource, despite eventual reversion or transfer to a future interest holder, is absolutely incontestable. As alluded to earlier, this discretion is based on a tenant’s rights under the ‘open mine’ doctrine. The general rule of that doctrine appears to be that the scope of the right of the party relying thereon is co-extensive with the terms of the lease governing wells drilled prior to the tenant having gained possession. If the lease confined wells to a particular formation, or limited the number of wells that could be drilled, the tenant is similarly confined or limited. If not, then no such restrictions operate. In all cases, however, the tenant is subject to the ‘prudent operator’ rule, which obligates the tenant to develop the lease to its fullest extent. This assumes application by the tenant of good oil field practice, including all known and accepted standard procedures for exploiting available reserves.
existing deposits. In this section, however, the focus is on the related, though distinct, matter of limits on the amount of production that can be taken from a field at any given point in time. Restated, while the last section looked at limits on the thoroughness with which a field may be swept, this section examines whether a usufructuary is limited in terms of the rate or volume of oil production. Certainly, the question taken up herein proves extremely relevant irrespective of whether an occupant is pumping from existing wells, new wells in developed or as yet undeveloped fields, or through the use of innovative technologies that employ either new drilling or take advantage of existing holes to produce oil in a developed field from existing wells. Its relevance is made all the more apparent by indications from commentators who have considered the matter of oil field occupations that a usufructuary is limited, at least in some instances, to producing no more product from an immovable under occupancy than was produced at the time the occupancy commenced.

Perhaps the principal source of authority for the proposition of a limitation on the rate or volume of an occupant’s production appears to be the decision, under Article 55 of the Hague Regulations, in the case of *Administration of Waters and Forests v. Falck* (1927). There a French court was presented with the claim that the cutting, by one acting under the authority of the German occupant, of state-owned trees at a rate well in excess of the permitted rate of harvest set forth in the French Forest Code, violated the rules of usufruct codified in Article 55. This authority is unequivocal. And, admittedly, if Iraq has established, as have regulatory organs within many nations concerned about maintaining optimum sustainable production levels, a specific standard setting out ‘allowable’ levels of production from an oil well, then production by a belligerent occupant at a rate in excess of that level would certainly have every appearance of being violative of the decision in *Falck* and, thus, contrary to the occupant’s rights and responsibilities under Article 55. Just as with the French Forest Code, oil and gas ‘allowables’ in territory occupied by a belligerent presumably establish production rates reflecting what those familiar with the prevailing conditions in that territory would suggest as the maximum permitted under good, prudent oil field operations. Production at a rate in excess would not be consistent prudent practice and could be argued to support the view of damage to the reservoir.

A couple of very important points need to kept in mind in connection with any such reading of the *Falck* case, however. First, situations involving forests and easily

42 See Claggett and Johnson, supra note 8, at 574, n. 82.
43 3 Ann. Dig. (Court of Nancy, France, 1926) 480 (lower court determination that the necessities of modern warfare, with the demands of large occupying armies, required reading Art. 55 in a broad way allowing no limits on the rate or volume of production); 4 Ann. Dig. (Court of Cassation, France, 1927) 563 (reversing the lower court).
44 On such ‘allowables’ in, for example, the United States, see F. Giuliano (ed.), *Introduction to Oil and Gas Technology* (1985), at 123, for examples of allowables under Texas state law, see Rules 39–45 of Texas Rules for Oil, Gas and Geothermal Operations, promulgated by the Texas Railroad Commn, in *Statewide Rules for Oil, Gas and Geothermal Operations*, Oil and Gas Division, Texas Railroad Commn (1997), at 158–169. Allowables are customarily set by the conservation or oil and gas regulatory commission of each producing state.
What Happens to the Iraqi Oil?

This is based on taking current production of 2.4 million barrels per day, multiplying it by 365 days, yielding a yearly total of 876 million barrels. That figure is then divided into current Iraqi reserves of 112 billion barrels.

According to estimates of Iraqi reserves, at current rates of production, it would take 128 years to completely produce that nation’s oil wealth. Would it be reasonable to expect complaint if Iraq’s 112 billion barrel reserves were returned after, say, five years, with production up from 2.4 million to 5.4 million barrels per day, and reserves, consequently, reduced by an additional 5.5 billion barrels, to 102.1 billion, rather than 107.6 billion? There is a certain attractiveness to a restriction on the rate of production when, like timber, the amount of a resource is limited to start with, and it takes considerable time for the resource to replenish itself. But what is it that makes such a restriction compelling when the resource is as abundant as in the case of Iraqi oil?

At (US)$25 per barrel, the cash flow generated under the greater production level of 5.4 million barrels per day would amount to $49.3 billion per year, compared to $21.9 billion under the lower limit. In the end, this substantial supplementation would fall to the Iraqis. Additionally, since economic valuation of oil reserves places greater weight on current production (i.e., ‘proved producing reserves’), than it does on yet-to-produce (‘proved non-producing’) or likely-to-produce (‘proved undeveloped or probable’) reserves, the conversion of reserves to the producing category would greatly enhance fair market value. Proved producing reserves — wells currently demonstrating productive capacity — may be worth four times ‘probable’ reserves which have yet to demonstrate productive capacity. When it comes to resources like timber in a forest, however, excessive harvesting would actually diminish the value of the land returned to a successor. Oil reserves of the magnitude of Iraq’s are so extensive that the issue of depletion, arguably the central notion behind the Falck decision, swallows up concerns regarding the rate of production. It would not seem beyond the realm of possibility that, if occupying forces merely marked time with Iraqi production and returned it unenhanced several years later, claims of a violation of the duty of a usufructuary would appear particularly resonant.

The second point that must be kept in mind in relation to the Falck decision...
concerns the possibility that the occupied state may have, as France did in its Forest Code, production ‘allowables’ in place at the time the occupying force commences its operations. Though nothing in the language of that earlier decision makes clear what exact role the existence of the Forest Code’s restriction played in the Court reaching its judgment, it would certainly appear that the decision was based on the dictates of Article 55 of the Hague Regulations, with, perhaps, the restrictions of the French Code simply providing a convenient way to gauge the precise level of the pre-occupation rate of production. Accepting this reading of the case, the presence of a production ‘allowable’ would place emphasis on the fact that the rate it sets forth represents a codification of the collective wisdom in the occupied territory about how fast oil can be produced without doing damage to the reservoir and impairing optimum production. Stated another way, the ‘allowable’ established the greatest rate or volume of production consistent with the prudent oil field practice.

In the event that the significance of ‘allowables’ is understood in the fashion described, rather than as a pre-existent regulatory standard that directly binds the occupying belligerent, it would seem that, given the earlier views on immovable state-owned resources as abundant as Iraq’s oil reserves, production rates in excess of ‘allowables’ could be seen as creating a rebuttable presumption of contravention of Article 55’s controlling international standard. Falck indicates that the Hague article prohibits production rates exceeding pre-occupation levels. Those levels can be ascertained by reference to pre-existent regulatory production limits. As such limits typically reflect the consensus regarding rates of production consistent with optimizing sustainable resource utilization, inherent in Article 55’s rules of usufruct is the notion that rates of production must be in line with sound, prudent oil field practice. Production that maximizes output without damaging the reservoir is permitted. However, since the potential is always present that a pre-occupation ‘allowable’ may not, for whatever reason, replicate or parallel the determinative international standard that zeroes in on prudent oil field practice, exceeding an ‘allowable’ may be best seen as giving rise to a rebuttable presumption of violation of Article 55. Production at rates above pre-existent regulatory limits, shifts the burden to the occupying belligerent to demonstrate that the allegedly excessive rate is consistent with optimizing resource production without imperilling recovery from the reservoir.

US domestic oil and gas law, which can be instructive in putting together a coherent picture of the rights and responsibilities of a belligerent occupant, is clearly brimming with restrictions on the rate or volume of production. Generally, however, these restrictions, consistent with what we have just seen, target not rates or volumes of production as such, but practices that result in the diminution of the total amount of oil and gas ultimately recovered. Practices of the latter sort are characterized as waste

---

48 See text accompanying *supra* notes 40–43 (perhaps abundant resources in occupied territory should not be governed by the *Falck* decision’s restriction on increases in the rate of production).
What Happens to the Iraqi Oil

49 The prudent operator’s standard is that applicable for determining whether an operator has breached the duty to the owner to use good operating practices. See H. Williams and C. Meyers, Manual of Oil and Gas Terms (2000) 882. ‘Good oil field practice’ is the term to indicate operations carried out in a good and workmanlike manner. Ibid., at 475. Sometimes the term ‘maximum efficient rate’ (MER) is used to mean the maximum rate at which oil can be produced without decline or loss of reservoir pressure. Ibid., at 620.

50 In some cases, a ‘gas cap allowable’ is mandated to prevent damage to reservoir pressure. See Langenkamp, supra note 18, at 177.

51 When excessive amounts of oil or gas are withdrawn from a field, a reservoir can be damaged by premature water encroachment. See R. D. Langenkamp, Oil Business Fundamentals (1982), at 51.

52 See Hemingway, supra note 39, at 439 et seq. See also Rule 49 of Texas Rules, supra note 44.

53 ‘Physical waste’, as opposed to ‘economic waste’, is defined as operational losses in the production of oil and gas by improper dissipation of reservoir pressure or the flaring of gas or spilling of oil. See Williams and Meyers, supra note 49, at 800. Economic waste is the drilling of more wells than necessary to exploit a mineral reserve. Ibid.

54 To this point, we have assumed the production of a single petroleum reservoir or zone beneath the land in question. In many cases, more than one, and sometimes several zones are present at varying depths. Frequently, all zones are produced through a single well bore in a ‘dual completion’ or ‘multiple completion’ operation. In other instances, the zones are accessed seriatim — usually commencing with the deepest zone. Such dual or multiple zone production techniques are similar to other efficient means of producing a reservoir, except that two or more reservoirs are ‘stacked’ one upon another. Drilling concessions internationally, or leases domestically, can be limited to less than all the zones, resulting in a breach of the prudent operator’s duty. Oil extraction is usually based on three sources of productive force: gas drive, water drive, or mechanical pump pressure. Petroleum engineering is designed to utilize these forces in such a manner as to maximize ultimate recovery over a reasonable time span. To accelerate production beyond the reasonable level, such as by ‘blowing off the gas cap’ or prematurely causing the ‘watering-out’ of a well is not only bad practice, it is generally actionable either by state regulatory authorities or co-owners of the well. A mineral interest life tenant who would commit such acts and, thereby, damage the reservoir, would be liable to the so-called remainderman, the successor in interest, for waste.

Applying the same reasoning to a belligerent occupant would prohibit increases in production that result from practices that could be seen as waste or cause damage to the reservoir. Contravention would violate the occupant’s duty as a usufructuary under Article 55 of the Hague Regulations. But short of such excess, and within the band of reasonable production, there would seem to be no fixed production level mandated. For instance, if a belligerent occupant were to experience an increase in the rate of production through the installation of new and more efficient pumps, no breach of the rules of usufruct could successfully be alleged. After all, the belligerent occupant would have done nothing to accelerate production in such a way as to leave the reservoir damaged. The total amount of oil ultimately recoverable would not have necessarily been diminished. In like vein, were the occupant to avoid ‘shutting-in’, that is to say, closing down, marginally productive wells, opting instead for an enhanced and more efficient operating plan, no breach could be alleged. The remainderman — in this case the nation to whom the occupied territory is to be returned — would have no right to insist on backwardness and inefficiency on the part of the belligerent occupant. In fact, it would have the right to insist upon reasonable competence during the temporary occupation period.
4 Use of Oil Resources and Revenues

The economic costs associated with US and allied operations in Iraq undoubtedly raise questions about whether that nation’s vast oil resources might be available for use in defraying those costs. Unlike, for instance, the complex matter of whether Article 55’s notion of usufruct contains limits on the types of technologies an occupant can bring to bear in exploiting the oil fields, the relevant law seems to provide a much clearer answer. The benefits obtained from a belligerent occupant’s working of immovable state property, such as oil reserves, can be applied only to defraying the ‘expenses of the occupation’, and that concept does not extend to the overall costs of the military operation. A variety of evidentiary sources exist to support that rather unequivocal conclusion.

To begin with, although Article 55 does not enunciate an explicit restriction on an occupant’s use of what is produced from a state-owned immovable, several early court decisions involving related provisions dealing with a belligerent’s rights to requisition, control movable property, and take items that may be useful in military operations, suggest the thrust of the relevant Hague Regulations is towards requiring a close tie to occupation activities. Thus, in *Ralli Brothers v. German Government* (1923), a British-German mixed tribunal determined a seizure of cotton in Antwerp and its subsequent shipment to Germany to have been violative of Article 52 of the Hague Regulations, as the seizure was not ‘for the needs of the German Army of multiple ownership of zones that could be intersected by a single well bore. In most states in the US, one with rights to a deeper/shallower zone must drill their own well and are not able to compel access via an existing hole. In Iraq, where all depths are government owned (assuming no division by virtue of a zone-specific concession), the problem of multiple ownership of ‘stacked’ zones is not present. With regard to belligerent occupancy in such a circumstance, the better view, even under the restrictive approach to Art. 55, may be to give the usufructuary the right to access all zones available through an existing well bore. After all, unless one is prepared to characterize an unperforated zone as analogous to an undeveloped oil field, there are three reasons that would seem to support recognition of such a right in a belligerent occupant. First, unlike with an undeveloped field, no new well has to be drilled to access the deeper zone. Second, the practice of tapping at varying depths seems quite usual in the oil business. And third, since, as the preceding pages of this essay have suggested, it is permissible to use a wide variety of oil field practices and techniques to exploit a single zone, it seems reasonable to imagine the same latitude existing in the context of multiple zones. Special persuasiveness would see to attach to these reasons in the context of seeking to exploit an already perforated shallower zone.

In the event that an unperforated stacked zone extends laterally well beyond the reach of existing producing zones at shallower levels, one’s position in arguing that it should be treated as an undeveloped field is strengthened. Conceptually, it seems easier to accept an occupant exploiting an unperforated stacked zone that has a lateral extent roughly comparable to existing producing zones above than it is to accept exploitation of one with a vastly greater lateral reach. Again, in the event that the untapped zone is situated above laterally smaller producing zones, the fact that the untapped zone has already been perforated erodes such a conceptualization. In such an event, a certain persuasiveness appears from the fact that the zone has already been drilled and, therefore, cannot be seen as precisely like an undeveloped, virgin field. Admittedly, with regard to an unperforated deeper zone, the call is much closer. However, it seems somewhat disconcerting to think that, just because a zone with a lateral extent greater than other zones in the same stack has not been previously penetrated, the zone remains inaccessible to an occupant who, on the surface level, is surrounded by a field supporting numerous other wells. Adding further to the concern would be the recognized right of the belligerent occupant to supplement these existing wells with ‘infill’ wells.

Use of Oil Resources and Revenues

The economic costs associated with US and allied operations in Iraq undoubtedly raise questions about whether that nation’s vast oil resources might be available for use in defraying those costs. Unlike, for instance, the complex matter of whether Article 55’s notion of usufruct contains limits on the types of technologies an occupant can bring to bear in exploiting the oil fields, the relevant law seems to provide a much clearer answer. The benefits obtained from a belligerent occupant’s working of immovable state property, such as oil reserves, can be applied only to defraying the ‘expenses of the occupation’, and that concept does not extend to the overall costs of the military operation. A variety of evidentiary sources exist to support that rather unequivocal conclusion.

To begin with, although Article 55 does not enunciate an explicit restriction on an occupant’s use of what is produced from a state-owned immovable, several early court decisions involving related provisions dealing with a belligerent’s rights to requisition, control movable property, and take items that may be useful in military operations, suggest the thrust of the relevant Hague Regulations is towards requiring a close tie to occupation activities. Thus, in *Ralli Brothers v. German Government* (1923), a British-German mixed tribunal determined a seizure of cotton in Antwerp and its subsequent shipment to Germany to have been violative of Article 52 of the Hague Regulations, as the seizure was not ‘for the needs of the German Army of multiple ownership of zones that could be intersected by a single well bore. In most states in the US, one with rights to a deeper/shallower zone must drill their own well and are not able to compel access via an existing hole. In Iraq, where all depths are government owned (assuming no division by virtue of a zone-specific concession), the problem of multiple ownership of ‘stacked’ zones is not present. With regard to belligerent occupancy in such a circumstance, the better view, even under the restrictive approach to Art. 55, may be to give the usufructuary the right to access all zones available through an existing well bore. After all, unless one is prepared to characterize an unperforated zone as analogous to an undeveloped oil field, there are three reasons that would seem to support recognition of such a right in a belligerent occupant. First, unlike with an undeveloped field, no new well has to be drilled to access the deeper zone. Second, the practice of tapping at varying depths seems quite usual in the oil business. And third, since, as the preceding pages of this essay have suggested, it is permissible to use a wide variety of oil field practices and techniques to exploit a single zone, it seems reasonable to imagine the same latitude existing in the context of multiple zones. Special persuasiveness would see to attach to these reasons in the context of seeking to exploit an already perforated shallower zone.

In the event that an unperforated stacked zone extends laterally well beyond the reach of existing producing zones at shallower levels, one’s position in arguing that it should be treated as an undeveloped field is strengthened. Conceptually, it seems easier to accept an occupant exploiting an unperforated stacked zone that has a lateral extent roughly comparable to existing producing zones above than it is to accept exploitation of one with a vastly greater lateral reach. Again, in the event that the untapped zone is situated above laterally smaller producing zones, the fact that the untapped zone has already been perforated erodes such a conceptualization. In such an event, a certain persuasiveness appears from the fact that the zone has already been drilled and, therefore, cannot be seen as precisely like an undeveloped, virgin field. Admittedly, with regard to an unperforated deeper zone, the call is much closer. However, it seems somewhat disconcerting to think that, just because a zone with a lateral extent greater than other zones in the same stack has not been previously penetrated, the zone remains inaccessible to an occupant who, on the surface level, is surrounded by a field supporting numerous other wells. Adding further to the concern would be the recognized right of the belligerent occupant to supplement these existing wells with ‘infill’ wells.
Occupation.55 And CIE. Des Chemins de fer du Nord v. German State (1929) saw a French-German mixed tribunal decide that seizure and operation of a rail line in Belgian territory for non-military as well as military purposes obligated the German occupiers to pay, under Hague Regulations Article 53, for all non-military operations.56 In the context of Article 55 specifically, however, the most relevant early decision went little further than to determine that a private German citizen, acting under a contract granted by German occupying forces situated in France, was still obligated to comply with French imposed regulations regarding the logging of a French public forest.57

The next piece of evidence indicating the need for an occupant to use the produce or revenues of an occupied state-owned immovable for the purposes of the occupation itself has to do with a resolution adopted by a meeting of international jurists during the 1943 London International Law Conference.58 Consonant with the sense emerging from the just referenced case law that followed World War I, the resolution provided that an occupant had no right to dispose of property, or of rights or interests therein, for any purpose except the ‘maintenance of public order and safety in the occupied territory’. Further, it provided that this limitation was applicable ‘whether such property, rights or interests [were] those of the State or of private persons or bodies’. By restricting a belligerent occupant to using property under its authority for maintaining ‘public order and safety’, the London resolution certainly suggested dissatisfaction with the thought that an occupant has complete latitude to pick-and-choose how the produce acquired from working a State-owned immovable is to be applied.

Third, determinations in the trials of lesser war criminals at Nuremberg make clear that Hague Regulations, including Articles 52, 53, and 55 as well, require a belligerent occupant to use its control over property in occupied territory only for the purpose of meeting the expenses of the occupation. The judgment in the trial of the major war criminals before the International Military Tribunal at Nuremberg expressly stated that the Hague Regulations, beginning with Article 48, and running through Articles 55 and 56, ‘dealing with public property, make it clear that under the rules of war, the economy of an occupied country can only be required to bear the expenses of the occupation . . .’.59 This interpretation of Article 55 and its associated provisions received additional confirmation in the lesser war crimes trial of In re Flick.60 In that case, the US tribunal at Nuremberg determined the Hague Regulations not to have been violated by German seizure and working of state-owned armament and train manufacturing facilities in occupied Russian territory. The tribunal noted

57 See Administration of Waters and Forests v. Falck, 4 Ann. Dig. (Court of Cassation, France 1927) 563.
60 See 14 Ann. Dig. (United States Military Tribunal at Nuremberg 1947) 266.
that, due to the facilities’ obvious role in the occupied nation’s war activities, they stood ‘on a different legal basis’ from other steel plants seized in France that had been idle at the time of German occupation, but were later activated to assist in Germany’s war effort.\(^6^1\)

A fourth and final piece of evidence on this point, which is especially relevant in light of the fact the Iraqi situation raises the question of limits on occupying forces’ use of oil, is the well-known *Bataafsche Petroleum* case,\(^6^2\) which focused on Japanese exploitation of occupied oil fields in the Dutch West Indies. While admittedly that case concerned privately owned oil deposits under Japanese occupation, as has already been observed, the need for a connection with the expenses of the occupying forces continues, whether private or public property is involved. In the case’s opinion, the exploitation of the oil in the occupied territory exceeded what was permitted by the law of belligerent occupancy, since it went beyond what was necessary for the demands of the occupant and was ‘for the purpose of supplying the naval, military and civilian needs of Japan’.\(^6^3\) Such a judgment leaves no doubt that one could not take the produce from the working of oil fields and expect to apply it without restriction or limitation. Indeed, use for general military needs, or the needs of the occupant’s (as distinguished from the occupied power’s) civilian population, would not be permissible.\(^6^4\)

But even accepting that Article 55 implicitly contains a restriction requiring an occupant to use immovable state-owned property under its control for nothing more than the expenses of the occupation, the exact parameters of that concept are not self-defining. ‘Expenses of occupation’ might be seen as including a vast range of things. In regard to the occupation of Iraq, could it be understood to include the costs associated with preparing for the invasion, stationing forces overseas and at-the-ready in advance of the invasion, conducting the military operations that result in the occupation, administering the oil fields following the successful wrap-up of operations and the commencement of occupation, providing assistance to the indigenous Iraqi population in helping the creation of a transitional and, eventually, permanent governing structure? Could it include the costs associated with rebuilding Iraqi civilian infrastructure, caring for the dead, wounded, and sick?

While the precise scope of the concept of ‘expenses of occupation’ is somewhat

\(^{61}\) See *ibid.*, at 270–271.


\(^{63}\) *Ibid.*, at 821.

\(^{64}\) It should be noted that even the *United States Army Field Manual on the Law of Land Warfare* provides that ‘[t]he economy of an occupied country can only be required to bear the expenses of the occupation. . . .’ See Dept of the Army, *The Law of Land Warfare* (FM 27–10) (1956), at para. 363 (emphasis added). As general military expenses or the needs of the occupant’s civilian population are not, strictly speaking, part of the needs or expenses of the occupation, insisting otherwise would be inconsistent with the determinations of the Field Manual. See also J. Stone, *Legal Controls of International Conflict* (1954) 697, to the effect that an occupant’s power over resources can be exercised to meet the occupant’s military needs. However, in applying the resources to those needs, the occupant must act ‘within the limits of what is required for the army of occupation and the needs of the local population’. Again, the tie to the occupation expenses is apparent.
What Happens to the Iraqi Oil?

elusive, it seems entirely safe to say that it would not include the costs of preparing for an invasion, holding forces overseas and at-the-ready, or conducting the invasion itself. In the *In re Krupp* case before the US military tribunal at Nuremberg, the justices indicated quite plainly that ‘[j]ust as the inhabitants of the occupied territory must not be forced to help the enemy in waging the war . . ., so must the economic assets of the occupied territory not be used in such a manner’.65 Any use of Iraqi oil resources for the purpose of defraying the costs associated with the initial military operation against that nation would contravene the *Krupp* case’s basic directive. Factually, that case involved German business enterprises operating under the authority of occupying forces to exploit, for the German war effort, the productive facilities of steel and other industries in various European nations.66 The case’s condemnation of the use of ‘economic assets of . . . occupied territory’ in helping the ‘waging [of] the war’ against that territory, surely encompasses taking the asset of oil to pay for costs associated with the military activities leading to the occupation’s installation.

With respect to the costs of administering the occupation of the oil fields, and the costs necessary to provide assistance to the indigenous population in helping its transition to a new governing structure, the Nuremberg tribunal’s statement of the law leaves a belligerent occupant in a substantially stronger, and essentially unassailable, position. This would also be so in connection with the costs of providing for new civilian infrastructure, the costs of burying the dead and treating the wounded and the sick and, obviously, the costs of maintaining the forces of occupation. In all such situations, the United States and its allies would neither be using the occupied territory’s economic assets to wage war against that nation, nor using them for anything other than the benefit of the indigenous population. The only somewhat questionable situation might concern the costs of administering the oil fields. Clearly, excessive or imprudent administration costs would inevitably result in a diminution of net income available for covering other occupation expenses benefiting the local population. Though not necessarily inevitable, a situation of excess and imprudence might be thought to arise whenever oil businesses under the jurisdiction of the occupying power prove to be beneficiaries of oil field opportunities made available as a consequence of the occupation.67

The problem with viewing such an association as irretrievably tainting the occupant’s use of either the produce or the revenues from oil field activities is twofold: it completely undervalues the parallel benefit that may (but may not in every case) simultaneously flow to the indigenous population as a result of such an association; and, it suggests that international law requires a rigid separation between the occupant and those exercising its usufructuary rights. With respect to the former, while not impossible, the realities of modern commerce make it difficult (and, in some situations, perhaps even uneconomic) for an occupying power to structure oil field

operations in a way that wholly ignores business skill and expertise that might be situated within its own borders and would, thus, be readily accessible. As to the latter, an obligation to arbitrarily diversify contractors and suppliers by nationality or otherwise simply does not appear in international law. In the words of one renowned international scholar, teacher, and jurist, what is required for an 'occupant’s action [to have] a solid basis in law’ is that the acts be ‘in good faith for the management of the community under war conditions and not for his [i.e., the occupant’s] own enrichment . . . ‘.68 The occupant, in short, would seem to have a duty to use its best efforts to, in good faith, maximize returns and minimize costs without regard to external political pressures. From all appearances, the occupant would be permitted to rely on the talent and supplies of companies of its nationality, so long as the selection was economically sound, made in good faith, and not somehow inuring to the occupant’s ‘own enrichment’.

5 Conclusion
There is little question that the Iraqi people have suffered tremendously since Saddam Hussein’s rise to power in 1979. The 12 years intervening the conclusion of the 1991 Gulf War have witnessed the international community’s laboured efforts to secure Iraq’s observance of its UN commitments regarding weapons of mass destruction.69 In the event that military force becomes essential to compel observance, occupation of Iraq’s oil fields could present the occupying force with a variety of difficult problems. The focus of this brief essay has been on three specific problems regarding the rights and responsibilities of any occupying force. The latitude enunciated on the role that current technologies can play in both increasing access to deposits and the rate or volume of production therefrom, and the limits stated in connection with the uses to which oil and its revenues can be put, prove most relevant in the context of the larger question about oil’s future in the rebuilding of Iraq.

Only the passage of time will actually reveal how that question is answered. In view of Iraq’s oil wealth, however, both the potential for great progress and the potential for great mischief are apparent. There can be little doubt that some ambitious politicos may populate the ranks of the well-groomed Iraqi expatriots who have passed their time in the safety of foreign capitals. And even within the borders of Iraq, there are undoubtedly many who would willingly carve up that nation and its oil to advance their own personal ethnic or religious agenda. The expectation, however, is that an occupying force would appreciate the genuinely significant opportunities for

---

reconstructing Iraq inherent in the oil wealth which providence has bestowed on this desert nation. The dictates of international law inherent in Article 55 of the Hague Regulations and related international juridical decisions, as well as observations of learned commentators, provide enlightened guidance assisting the occupant if such a course is pursued. The restoration, the working, and the enhancement of Iraqi oil fields, and the use of the proceeds therefrom, must be directed towards facilitating the evolution of a valued and productive member of the community of nations.