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Oil shale reserves have the potential of making a great contribution to the energy needs of the nation. A primary obstacle to developing oil shale properties, however, is the uncertainty of the legal principles governing the validity of oil shale mining claims. In this article, the author considers the issues as they historically evolved, evaluates the present status of the law and explores alternatives which could hopefully resolve the problems.

OIL SHALE MINING CLAIMS: ALTERNATIVES FOR RESOLUTION OF AN ANCIENT PROBLEM

*Thomas H. Duncan**

Oil shale mining claims were described in 1969 as "a unique and spectacular example of title uncertainty in a nation where certainty of title has long been claimed as a strong point" of the legal system.[1] Since 1969 a number of administrative rulings and court decisions have been rendered on oil shale mining claims, including two opinions by the United States Supreme Court. But the observation is as true today as it was then: title to lands covered by oil shale mining claims continues to be uncertain and contested.

Oil shale mining claims were located under the General Mining Law, which declares "all valuable mineral deposits in lands belonging to the United States" to be "free and open to exploration and purchase."[2] It has been estimated that tens of thousands of oil shale mining claims covering millions of acres

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1. WIDMAN, LEGAL STUDY OF OIL SHALE ON PUBLIC LANDS 380 (1969) (Prepared for the Public Land Law Review Commission).
2. 30 U.S.C. § 22 (1976).

of public land in Colorado, Utah and Wyoming were located prior to 1920.[3] With passage of the Mineral Leasing Act on February 25, 1920, oil shale was withdrawn from operation of the General Mining Law and federal lands containing oil shale deposits could only be disposed of through the issuance of the leases by the Secretary of the Interior. However, Section 37 of the Mineral Leasing Act specifically preserves oil shale and other mining claims existing on the date of its passage that are subsequently maintained under the General Mining Law.[4] The Department of the Interior now estimates that 2,000 oil shale mining claims covering 300,000 to 400,000 acres of public land in Colorado and Utah[5] were recorded under Section 314 of the Federal Land Policy and Management Act[6] and may have been properly maintained.

The existence of these outstanding mining claims makes it difficult for the Secretary of the Interior to manage the lands they cover. The Secretary discovered during the Prototype Oil Shale Leasing Program that lessees were unwilling to make the expenditures necessary for oil shale development while a cloud to the title of the United States in the form of mining claims existed.[7] The cloud on the title of the United States also limits the Secretary's ability to grant surface rights for other land-use activities. At the same time, the holders of the claims have been unable or unwilling to exercise their right to begin oil shale development within the boundaries of the claims, which must in part be due to the uncertainty as to their validity.

A final disposition of the outstanding oil shale mining claims is needed to create secure land tenure that will allow the

3. WIDMAN, *supra* note 1, at 164.
4. 30 U.S.C. § 193 (1976).
5. *Proposed Amendments to Section 21 of the Mineral Leasing Act: Hearings on H.R. 2844 and H.R. 2897 Before the Subcomm. on Mines and Mining of the House Comm. on Interior and Insular Affairs*, 97th Cong., 1st Sess. (June 25, 1981) (statement of Garrey E. Carruthers, Assistant Secretary of the Interior).
6. 43 U.S.C. § 1744 (1976).
7. U.S. OFFICE OF TECHNOLOGY ASSESSMENT, AN ASSESSMENT OF OIL SHALE TECHNOLOGIES VOLUME II: A HISTORY OF THE FEDERAL PROTOTYPE OIL SHALE LEASING PROGRAM 50-53 (1980). Uncertainties as to land title created in part by the existence of unpatented mining claims have caused the lessees to bring two lawsuits against the Secretary of the Interior. In one case, the district court in Utah enjoined the Secretary from enforcing diligent development requirements. Phillips Petroleum v. Kleppe, Civil No. C-77-0165 (D. Utah, order entered July 1977). In the other, the lessees sought to compel the Secretary to clear title to the leased lands or to recover the full amount of bonus bids and other payments made to the United States in connection with the leases, but the court recently granted defendant's motion to dismiss for failure to state a cause of action. Sohio Oil Shale Corp. v. Andrus, Civil No. C-80-0240-A (D. Utah September 25, 1981).

federal government and private parties to proceed with oil shale development. Recent studies indicate that it takes several years and billions of dollars to achieve significant oil shale production from a particular plant.[8] Obtaining a secure estate in the oil shale deposits to be developed is easily recognized as an important first step in the development process.

However, the legal principles that govern the validity of oil shale mining claims continue to be disputed. The Department of the Interior initiated a program in the early 1960's designed to lead to the appropriate disposition of all oil shale mining claims. That program has resulted in two Supreme Court and a number of lower court decisions which leave the principles governing the validity of oil shale mining claims open to considerable argument. It appears that several more years of litigation will be necessary to establish the parameters for patenting oil shale mining claims. After those parameters are set, it will take the Department of the Interior several years to adjudicate the individual claims to determine their validity, and, additional litigation can be expected to arise from that process.

An alternative to the historical pattern of litigation and dispute must be found if there is to be a final disposition of the oil shale mining claims in the near term. The significance of the federal government's holdings in the oil shale country makes a resolution of its land title problems important for the future of the oil shale industry.

This article will explore the alternatives available to the Department of the Interior and the oil shale claimants under existing law for a non-litigated resolution of the oil shale mining claim problem. The attractiveness of these alternatives will be gauged against a background of legal and public policy considerations. The need for legislative initiatives to overcome any shortcomings of existing law will also be explored.

A discussion of the oil shale resource and the administrative and judicial actions that have been taken on oil shale mining claims is in order before turning to the alter-

8. U.S. OFFICE OF TECHNOLOGY ASSESSMENT, AN ASSESSMENT OF OIL SHALE TECHNOLOGIES, TABLE 17 AT 114, 186 (1980).

natives for resolution. The need for a creative approach to resolution of the oil shale mining claim problem and the appropriateness of available alternatives cannot be fully appreciated without some understanding of the historical context.

I. BACKGROUND

A. The Resource and Early Claim Activity

Oil shale is a fine grain, laminated, sedimentary rock containing organic material from which appreciable amounts of oil can be obtained by the application of heat.[9] The oil shale of the Green River Formation, which contains the deposits covered by mining claims, is not really a shale nor does it contain appreciable amounts of liquid oil. The shale portion is actually a marlstone rock with principle constituents of dolomite, calcite, and quartz, whereas true shales are composed largely of silicate clays.[10] The organic component is a solid material called kerogen.[11] The shale oil produced from destructive distillation of marlstone rock differs from conventional petroleum crude oil in that it has an unusually high pour-point and it contains moderate to high levels of nitrogen, sulfur, and oxygen, all of which affect the ease and economics of upgrading and refining the product.[12]

There are oil shale deposits in all of the inhabited continents of the world, and deposits are found in more than half of the United States.[13] However, the oil shale deposits of the Green River formation are of particular interest because they contain the largest concentration of potential shale oil in the world.[14] The Green River formation is a geologic entity that underlies some 34,000 square miles of terrain in northwestern Colorado, southwestern Wyoming, and northeastern Utah.[15] Oil shale resources have been found in some 17,000 square miles, or 11 million acres, of land containing the Green River formation.[16] The principle deposits are found in the Piceance

9. WILLIAMS & MEYER, MANUAL OF OIL AND GAS TERMS 392 (4th ed. 1976).
10. U.S. OFFICE OF TECHNOLOGY ASSESSMENT, *supra* note 8, at 105.
11. *Id.*
12. Sladek, *Recent Trends in Oil Shale-Part I: History, Nature, and Reserves*, 17 MIN. INDUSTRIES BULL. No. 6, at 5 (1974).
13. *Id.* at 6-9.
14. *Id.*
15. *Id.* at 9.
16. U.S. OFFICE OF TECHNOLOGY ASSESSMENT, *supra* note 8, at 89.

Creek Basin in Colorado, the Uinta Basin in northeastern Utah and northwestern Colorado, and the Green River and Washakie Basins in Wyoming.[17]

In this three state area, it has been estimated that oil shale beds yielding more than 10 gallons of oil per ton contain more than two trillion barrels of oil.[18] Of this two trillion barrels, more than three-quarters of a trillion barrels of oil are contained in beds that will yield an average of 25 gallons of oil per ton.[19] About 80% of the 25 gallon per ton shale is located in the Piceance Creek Basin in Colorado, and 15% of the shale of that richness is located in the Uinta Basin in Colorado and Utah.[20] Although not all of these resources will be recoverable, it is still obvious that oil shale holds a vast potential for providing liquid fuel supplies.[21]

It has been observed that interest in commercial development of oil shale varies "directly with the need for hydrocarbon fuels and inversely with the ability of the producers of conventional fuels to satisfy that need."[22] Interest in oil shale development in the United States began to appear during World War I when the supply of crude oil from domestic fields fell below demand. The U.S. Geological Survey estimated that only a 9 year supply of domestic natural petroleum remained in the United States and no additional discoveries were anticipated. After conducting several years of field studies, the U.S. Geological Survey announced in 1916 that fantastic quantities of oil were contained in western oil shales. Given the predictions of a coming fuel shortage, this announcement produced an oil shale boom that led to the location of tens of thousands of oil shale mining claims covering lands underlain by the Green River formation.[23]

17. *Id.*
18. Donnell, *Geology and Oil Shale Resources of the Green River Formation*, 59 QUARTERLY OF THE COLO. SCH. OF MINES NO. 3, 153, 162 (July, 1964).
19. *Id.*
20. *Id.*
21. In 1978 the United States consumed about 6.5 billion barrels of crude petroleum, of which about 2.8 billion barrels of crude oil and refined products were imported. U.S. OFFICE OF TECHNOLOGY ASSESSMENT, *supra* note 8, at 92. Recovery of only one-third of the richer oil shale deposits containing 25 gallons of oil per ton would supply the United States with oil for about forty years, or replace imported oil supplies for one hundred years, at current consumption levels.
22. Sladek, *supra* note 12, at 3.
23. *Id.* A good review of the early history of the oil shale industry in the United States is contained in the opinion of the Interior Board of Land Appeals in United States v. Winegar, 16 I.B.L.A. 112, 135-47 (1974), and in the opinion of the district court in Shell Oil Co. v. Kleppe, 426 F. Supp. 894, 902-908 (D. Colo. 1977).

Oil shale mining claims were locatable as placer claims under the Act of February 11, 1897.[24] In general, a valid mining claim can be established through: (1) discovery of a valuable mineral deposit,[25] (2) location of a claim, which involves marking its boundaries on the ground and filing a record in the manner provided by the regulations of the miners of each mining district,[26] and (3) performance of not less than $100 of labor on the claim each year.[27] The holder of a mining claim is granted "the exclusive right of possession and enjoyment" of the surface and mineral deposits included within its boundaries, and the claim is property which may be sold, transferred, mortgaged, inherited and taxed.[28] A patent for lands covered by mining claims conveying full fee title may be obtained upon application with an accompanying certification that $500 worth of labor or improvements have been made on the claim.[29] Placer mining claims are generally subject to the same rules and conditions that govern other mining claims; however, there are special rules on the size of placer claims and the nature of fee granted when the claim contains a mineral vein or lode.[30]

Section 37 of the Mineral Leasing Act withdrew oil shale, along with a number of other minerals, from operation of the General Mining Law, but it specifically preserves "valid claims . . . thereafter maintained in compliance with the laws under which initiated, which claims may be perfected under such laws, including discovery."[31] The controversy over oil shale mining claims centers on whether they were "valid claims" at the time of passage of the Mineral Leasing Act and whether they have been "maintained in compliance" with the General

24. Ch. 216, 29 Stat. 526. There was some doubt initially as to whether oil shale was a locatable mineral under this statute which deals with "lands containing petroleum or other mineral oils." *See* Andrus v. Shell Oil Co., 446 U.S. 657, 664 n.7 (1980). Those doubts were finally laid to rest by the Secretary's instructions of May 10, 1920, which indicated that oil shale was a locatable mineral under the same rules governing oil and gas claims. Instructions, 47 L.D. 548 (1920).
25. 30 U.S.C. § 22 (1976).
26. 30 U.S.C. § 28 (1976).
27. *Id.* The requirement that annual labor be performed for the benefit of each claim is often referred to as the assessment work requirement. The purpose of this requirement is to obtain a demonstration of the claimant's good faith intention to hold the claim and to put others on notice of the claim asserted. Udall v. Oil Shale Corp., 406 F.2d 759, 760 (10th Cir. 1969).
28. 30 U.S.C. § 26 (1976); Black v. Elkhorn Mining Co., 49 F. 549, 551 (D. Mont. 1892), *aff'd*, 163 U.S. 445 (1895).
29. 30 U.S.C. § 29 (1976).
30. 30 U.S.C. §§ 35, 37 (1976).
31. 30 U.S.C. § 193 (1976).

Mining Law so as to be excepted from the leasing requirement by Section 37.

The primary issue on the question of whether the oil shale mining claims were valid in 1920 is whether there was a discovery of valuable mineral deposit. In order to establish a discovery, there must be: (1) an exposure of oil shale within the boundaries of the claim, which (2) is of sufficient quantity and quality to justify a prudent man in expending his time and money in an effort to develop a valuable mine.[32] Performance of annual labor is the primary issue that arises in connection with the question of whether the claims have been properly maintained. The General Mining Law provides that "until a patent has been issued therefor, not less than $100 worth of labor shall be performed or improvements made during each year" for each claim located.[33] Failure to comply with this condition opens the claim up to relocation just as if no location of a claim had ever been made, unless the original locator resumes work on the claim before a relocation occurs.[34]

The oil shale mining claim litigation has left a crisscross pattern of decisions on these issues.

B. Initial Action by the Department of the Interior on Oil Shale Mining Claims

Shortly after passage of the Mineral Leasing Act the Secretary of the Interior issued instructions for further action on the oil shale mining claims preserved by Section 37. Generally, those instructions directed the General Land Office to proceed with the adjudication of oil shale mining claims under the principles governing the patenting of oil and gas placer claims.[35] Administrative contests and adjudications of patent applications were begun after issuance of these instructions, leading to two important Departmental decisions in 1927.

The first of these decisions was *Freeman v. Summers*.[36] Summers applied for homestead patents for two separate en-

32. *See* 1 AMERICAN LAW OF MINING §§ 4.63, 4.67 (1980).
33. 30 U.S.C. § 28 (1976).
34. *Id.*
35. Instructions, *supra* note 24, at 551.
36. 52 L.D. 201 (1927).

tries on May 10, 1920. A protest was subsequently filed by Freeman on the basis of oil shale placer mining claims held by him covering the lands included in Summers' entries. Freeman's protest was dismissed by the General Land Office and his claims were held invalid for lack of a discovery of a valuable mineral deposit. Freeman sought review of the General Land Office's decision by the Secretary of the Interior.

The Secretary's opinion in this case is important in two respects. After briefly reviewing the evidence on the geology of the Green River formation, the Secretary concluded that a miner "having made his initial discovery at the surface, may with assurance follow the formation through the lean to the richer beds" of shale.[37] In other words, the Secretary found as a matter of fact that if a claimant exposed oil shale of the Green River formation within the boundaries of a claim, he could, on the basis of accepted geologic information about the formation, infer the existence of a rich and exploitable oil shale deposit at depth. Second, the Secretary found that there was no doubt as to the value of oil shale or of the fact that oil shale constitutes an enormously valuable resource. Given those findings, the Secretary concluded that it was not necessary under the General Mining Law that oil shale "can be immediately disposed of at a profit" in order for it to constitute a valuable mineral deposit for which a patent may issue.[38] Implicit in this conclusion is a finding that a prudent man would be justified in expending his time and money with a reasonable prospect of success in developing a valuable oil shale mine within the boundaries of the claim even though there were no existing profitable oil shale mines. Freeman's claims were ruled to be valid and entitled to pass to patent, all other things being regular.

The other early decision of significance was *Emil L. Krushnic.*[39] This case arose out of a policy of the Department to void oil shale claims for which annual labor had not been performed on a regular basis.[40] The contest complaint alleged that the claim at issue was invalid because annual labor had not been performed for the year 1920, and the Land Office

37. *Id.* at 206.
38. *Id.*
39. 52 L.D. 282 (1927), *aff'd on rehearing*, 52 L.D. 295 (1928).
40. WIDMAN, *supra* note 1, at 38.

declared the claim null and void on that basis.[41] The claimant sought review by the Secretary.

In an opinion issued by First Secretary Finney, the Department ruled that an oil shale mining claim "is forfeited upon failure to fulfill the statutory requirement as to annual labor and improvement."[42] In prior decisions the Department had taken the position that a failure to perform annual labor was a matter between rival claimants that did not affect the validity of the claim as against the United States.[43] However, the Department had also ruled that mining claims covering lands which were subsequently included within an order of withdrawal or reservation from operation of the General Mining Law could be forfeited to the United States, depending on the language of the instrument effecting the withdrawal or reservation, upon a failure to perform annual labor.[44]

In *Krushnic,* the Secretary observed that Section 37 of the Mineral Leasing Act withdrew oil shale from the operation of the General Mining Law. Failure to meet requirement of the savings clause of Section 37 that claims be "maintained in compliance with the laws under which initiated," including the performance of annual labor, was held to work a forfeiture of the claims so that the lands withdrawn would be available for disposal under the leasing act.[45] Resumption of annual labor by the claimant was held to be ineffective to "restore a lost estate in lands" once the initial failure and resulting forfeiture occurred, even though a resumption of work would have barred a relocation of the claim by another in the absence of a withdrawal.[46]

Final judicial review of the Department's decision was obtained in *Wilbur v. United States ex rel. Krushnic.*[47] The claimant argued that performance of annual labor was not a matter

41. The evidence indicated that the claim at issue, the Spad No. 3, was one of a group of six claims for which annual labor had been regularly performed. However, the work done on the Spad No. 3 claim for the year 1920 did not exceed $100 in value, and the Secretary found that the work done on the adjoining claims could not be said to have been performed for its benefit. Emil L. Krushnic, *supra* note 39, at 295.
42. *Id.* at 286.
43. P. Wolenberg, 29 L.D. 302, 304 (1899).
44. E. C. Kinney, 44 L.D. 580 (1916); Navaho Indian Reservation, 30 L.D. 515 (1901).
45. Emil L. Krushnic, *supra* note 39, at 286. This ruling was consistent with prior Departmental decisions dealing with oil and gas claims. Cronberg v. Hazlett, 51 L.D. 101 (1925); Interstate Oil Corp. & Frank O. Chittenden, 50 L.D. 262 (1924).
46. Emil L. Krushnic, *supra* note 39, at 287.
47. 280 U.S. 306 (1930).

of concern to the federal government and that the only penalty resulting from failure to perform annual labor was the possibility of relocation of the claim by another.[48] Since oil shale had been withdrawn from operation of the mining law there could be no relocation of the claim, and the claimant had resumed work on the claim, which would have precluded a relocation even in the absence of the withdrawal.

The Court agreed with the claimant's assertion that a failure to perform annual labor of the value of $100 did not *ipso facto* result in a forfeiture of a claim, but rather only rendered it subject to loss by relocation.[49] Performance of annual labor preserves a mining claim under Section 37 of the Mineral Leasing Act and "after failure to do assessment work, the owner equally maintains his claim, within the meaning of the Leasing Act, by a resumption of work, unless at least some form of challenge on behalf of the United States to the valid existence of the claim has intervened."[50] The Court held that the Secretary had misapplied the statute requiring the performance of annual labor by failing to give effect to the language on resumption of work, and it directed the Secretary to reconsider the validity of the claim at issue "unaffected by the temporary default in the performance of assessment labor."[51]

Shortly after the Supreme Court's decision in *Krushnic,* the Secretary of the Interior issued new instructions for government proceedings against oil shale claims which interpreted the decision as holding "that the Government was in the same position as an adverse claimant . . . in so far as challenging a default in assessment work is concerned."[52] Thus, to challenge the validity of a claim on the basis of a failure to perform annual labor, action must be taken "when there is an actual default and no resumption of work."[53] The Department proceeded to declare additional oil shale mining claims null and void for failure to perform annual labor in cases

48. *Id.* at 312.
49. *Id.* at 317.
50. *Id.* at 317-18.
51. *Id.* at 319.
52. Instructions: Government Proceedings Against Oil Shale Claims in Default in Assessment Work, 53 I.D. 131, 132 (1930).
53. *Id.*

such as *Federal Shale Oil Co.*[54] and *Virginia-Colorado Development Corp.*[55]

The oil shale mining claimants again sought judicial review of the Department's decisions, culminating in a Supreme Court decision in *Ickes v. Virginia-Colorado Development Corp.*[56] The Supreme Court observed that prior to passage of the Mineral Leasing Act, the Secretary did not consider performance of annual labor to be necessary to preserve mining claims as against the United States, but only as against subsequent relocators. Implicit in the Court's opinion is the conclusion that passage of the Mineral Leasing Act and its withdrawal of oil shale from operation of the General Mining Law did not provide a basis for a change in that position. The Court confirmed the authority of the Secretary of the Interior to determine that a claim is invalid for a lack of discovery, fraud, or other defect, or that it is subject to cancellation by reason of abandonment. However, the Court concluded that "[p]laintiff had lost no rights by failure to do the annual assessment work; that failure gave the government no ground of forfeiture."[57] Thus, the Court surpassed its ruling in *Krushnic* and held that the Secretary lacked authority to declare oil shale claims null and void for failure to perform annual labor.

Later that same year, the Department issued an opinion in *Shale Oil Co.*[58] which involved an appeal from a decision by the Land Office declaring oil shale mining claims null and void for failure to perform annual labor. The Secretary ruled that in light of the Supreme Court's decision in *Ickes v. Virginia-Colorado Development Corp.*, "the instant case must be held as without authority of law and void."[59] The decision of the Department in *Virginia-Colorado Development Corp.* was "recalled and vacated," and other departmental decisions inconsistent with the Supreme Court's decision were "overruled."[60] This decision marked the end of the Department's program to nullify oil shale mining claims for failure to perform annual labor.

54. 53 I.D. 213 (1930).
55. 53 I.D. 666 (1932).
56. 295 U.S. 639 (1935).
57. *Id.* at 646.
58. 55 I.D. 287 (1935).
59. *Id.* at 290.
60. *Id.*

Interest in oil shale development declined during the 1930's due to the Great Depression and the discovery of extensive petroleum deposits in Texas. During the remainder of the 1930's, the Department of the Interior issued patents for a few oil shale mining claims without regard to whether annual labor had been performed and under the discovery principles announced in *Freeman v. Summers.*

Interest in synthetic fuels generally and oil shale development specifically was rekindled during World War II. Congress passed the Synthetic Liquid Fuels Act[61] in 1944 under which the Department of the Interior's Bureau of Mines conducted basic research and engineering studies on oil shale through the 1950's. In the late 1940's and early 1950's large oil companies began acquiring interests in unpatented mining claims and additional patents were issued by the Department of the Interior.[62] However, all action of oil shale mining claim patent applications was suspended in 1960.

C. Recent Actions

During the early 1960's the Department of the Interior reconsidered its position on oil shale, which resulted in the announcement of a new policy by Secretary Udall on April 17, 1964. Secretary Udall indicated that the Department would move in an orderly and expeditious way to develop a program for the utilization of oil shale resources. As part of that program, the Bureau of Land Management was directed to identify all remaining oil shale mining claims and to begin contest proceedings in each case in which it appeared the claims might be invalid.[63]

On the same day that Secretary Udall announced the Department's new oil shale policy, a decision was issued in *Union Oil Co.*[64] Several oil shale mining claimants had filed an appeal with the Director of the Bureau of Land Management from decisions of the Manager of the Colorado Land Office re-

61. 30 U.S.C. §§ 321-25 (1976).
62. In later litigation the Department reported that it issued 523 patents for oil shale lands between 1920 and 1960 covering 2,326 claims and 349,088 acres. United States v. Winegar, *supra* note 23, at 166.
63. The new policy was discussed in a paper submitted by Assistant Secretary John M. Kelley to the Colorado School of Mines First Oil Shale Symposium, 59 QUARTERLY OF THE COLO. SCH. OF MINES No. 3, at 1 (July 1964).
64. 71 I.D. 169 (1964).

jecting patent applications for their claims. The patent applications were rejected because the claims at issue had been previously declared null and void in proceedings brought by the government between 1930 and 1933 on a charge of failure to perform annual labor. The Secretary of the Interior assumed jurisdiction of the appeal and assigned the matter to the Solicitor for final decision.

The Solicitor agreed that the prior contests precluded the issuance of patents for these claims and the decision of the Colorado Land Office was affirmed. In the Solicitor's opinion, the Secretary of the Interior had jurisdiction over the claims at issue in the contests of the 1930's by virtue of his general authority over the public lands and his duty to adjudicate the acquisition of rights in those lands. The Supreme Court's decision in *Ickes v. Virginia-Colorado Development Corp.* was interpreted not as ruling that the Secretary lacked jurisdiction to determine the validity of oil shale mining claims, but rather as a ruling that the Secretary had simply erred in concluding that a failure to comply with the annual labor requirement nullified the claims.[65] Observing that no administrative appeal or juridicial relief had been sought by these claimants from the initial contest decisions, the Solicitor invoked the principles of finality of administrative action and *res judicata* to conclude that the prior contest decisions presented a bar to the patenting of the claims.[66]

During the course of the proceedings the claimants argued that because the Department of the Interior had previously declared the contest decisions of the 1930's to be without authority of law and void it was now estopped from asserting those contest decisions as a bar to the patenting of claims. The Solicitor found as a matter of fact that the Department had treated lands covered by claims declared null and void in contest decisions of the 1930's as part of the public domain, citing as evidence the issuance of oil and gas leases covering some of those lands.[67] The Solicitor also ruled that in order for a pattern of administrative practice to estop an agency from changing its position there must have been some reliance on that practice by the parties claiming its benefit, and he found no

65. *Id.* at 179-80.
66. *Id.* at 181-82.
67. *Id.* at 183.

evidence of any such reliance in this case.[68] Thus, a significant number of oil shale mining claims were declared invalid on the basis of contest decisions entered in the 1930's and all claims that had been involved in such proceedings were jeopardized.[69]

At least nine separate actions were filed in the United States District Court for the District of Colorado complaining of the *Union Oil* decision.[70] The District Court consolidated four of those cases for expedited consideration under the title of *Oil Shale Corp. v. Udall,*[71] and further action in the remaining cases was deferred pending resolution of the issues in that case.[72]

The District Court ruled that the Department of the Interior exceeded its authority in rejecting oil shale mining claim patent applications on the basis of contest decisions of the 1930's.[73] The ruling is premised upon a legal conclusion that the Secretary of the Interior had no subject matter jurisdiction in those contest proceedings to declare oil shale mining claims null and void for failure to perform annual labor. Because the Secretary exceeded his authority in the 1930's contest proceedings, those decisions are void and of no effect and do not pose a bar to the issuance of patents for the claims at issue.[74] The District Court was affirmed by the Tenth Circuit Court of Appeals.[75]

The Supreme Court reversed in *Hickel v. Oil Shale Corp.*[76] In an opinion written by Mr. Justice Douglas, the Court observed that the Mineral Leasing Act gave the Secretary of

68. *Id.* at 185.
69. In a subsequent judicial decision the district court for Colorado noted that prior to 1933 the Department of the Interior filed contest proceedings against 22,000 claims covering 2.7 million acres of land alleging a failure to perform annual labor. Oil Shale Corp. v. Morton, 370 F. Supp. 108, 117 (D. Colo. 1973). With respect to the claims at issue in *Union Oil,* the Solicitor deferred final action on a number of claims pending a determination of the sufficiency of the notice to the claimants in the initial contest proceedings. A year later the rejection of the patent applications for many of those claims was affirmed. Union Oil Co. of California, 72 I.D. 313 (1965).
70. Oil Shale Corp. v. Udall, Civil No. 8680 (D. Colo. 1964); Umpley v. Udall, Civil No. 8685 (D. Colo. 1964); Napier v. Udall, Civil No. 8691 (D. Colo. 1964); Hugg v. Udall, Civil No. 9252 (D. Colo. 1965); Savage v. Udall, Civil No. 9458 (D. Colo. 1965); Union Oil Co. v. Udall, Civil No. 9461 (D. Colo. 1965); Equity Oil Co. v. Udall, Civil No. 9462 (D. Colo. 1965); Gabbs Exploration Co. v. Udall, Civil No. 9464 (D. Colo. 1965); Ertl v. Udall, Civil No. 9465 (D. Colo. 1965).
71. Civil No. 8680 (D. Colo. March 28, 1966) (order for consolidation).
72. *E.g.*, Hugg v. Udall, Civil No. 9252 (D. Colo. March 24, 1967) (order to close files and stay proceedings). These remaining cases are referred to as the "backburner" cases.
73. Oil Shale Corp. v. Udall, 261 F. Supp. 954 (D. Colo. 1966).
74. *Id.* at 965-66.
75. Udall v. Oil Shale Corp., *supra* note 27.
76. 400 U.S. 48 (1970).

the Interior a vital interest in the validity of mining claims because it reclaimed the public domain mineral lands for disposition under a different procedure. The Court ruled that:

> [T]he command of the 1872 Act is that assessment work of $100 be done "during each year" and the Saving Clause of § 37 of the 1920 Act requires that for lands to escape the leasing requirement the claims must be "maintained in compliance with the laws under which initiated."[77]

The Court concluded that the Mineral Leasing Act "makes the United States the beneficiary of all claims invalid for lack of assessment work or otherwise. It follows that the Department of the Interior had, and has, subject matter jurisdiction over contests involving the performance of assessment work."[78] However, the Court declined to overrule *Krushnic* and *Virginia-Colorado Development Corp.*, which had brought the jurisdiction of the Secretary to contest the validity of claims for failure to perform annual labor into question. Rather, it held those decisions to be limited to their facts. In both cases, the claimant had failed to perform annual labor in only one year, and in the Court's view, its prior decisions stand for the proposition that failure to perform annual labor for one year does not amount to a failure to maintain the claim under the General Mining Law. However, "token assessment work, or assessment work that does not substantially satisfy the requirement of 30 U.S.C. §28, is not adequate to 'maintain' the claims within the meaning of §37 of the Leasing Act."[79] The Court ordered the case remanded to the Department of the Interior for further administrative action on the question of substantial compliance with the annual labor requirement.

There were other developments on the validity of oil shale mining claims while the *Oil Shale Corp.* was working its way through the courts. On September 8, 1964, the Bureau of Land Management issued complaints alleging that six oil shale mining claims for which patent applications had been filed were invalid because of a failure to discover a valuable mineral deposit within the boundaries of the claims. Hearings on the contests

77. *Id.* at 54.
78. *Id.* at 57.
79. *Id.*

commenced on June 20, 1967, and covered a period of three months. In that time a total of 26 witnesses were heard, 1,700 exhibits were introduced and 5,000 pages of transcript recorded. Final action by the Department of the Interior on these contests was announced in *United States v. Winegar* on June 28, 1974.[80]

The Interior Board of Land Appeals ruled in this case that the prudent man rule, as supplemented by the marketability test, is the proper standard for determining whether there has been a discovery of a valuable oil shale deposit so as to entitle a claimant to a patent.[81] Under this standard a discovery of a valuable mineral deposit has been made if there has been an exposure of mineral within the boundaries of the claim of such a character that a prudent man would be justified in the further expenditure of his labor and means with a reasonable prospect of success in developing and operating a mine at a profit. Since oil shale was withdrawn from operation of the General Mining Law by Section 37 of the Mineral Leasing Act, the Board ruled that the claimants must establish the discovery of a valuable mineral deposit both as a present fact and as of the date of withdrawal, February 25, 1920.[82]

The Board found that: (1) commercial production of oil shale has never been competitive with the petroleum industry, (2) hypothetical studies confirm the lack of competitiveness on

80. United States v. Winegar, *supra* note 23.

81. *Id.* at 123. The prudent man rule/marketability test was approved by the Supreme Court as the proper standard for determining whether there has been a discovery of a valuable mineral deposit under the General Mining Law in United States v. Coleman, 390 U.S. 599 (1968).

82. United States v. Winegar, *supra* note 23, at 123. The conclusion that a discovery of a valuable mineral deposit must be established as of February 25, 1920, is not entirely correct. The legislative history of the Mineral Leasing Act reveals that by adding the words "including discovery" to Section 37, Congress intended to preserve mining claims that were properly located and recorded under the General Mining Law regardless of whether there had been a discovery of a valuable mineral deposit at the time of passage of this Act. Claims properly asserted under the General Mining Law could later be "perfected" through discovery of a valuable mineral deposit as a result of diligent prosecution of prospecting and exploration. 58 CONG. REC. 4577-84 (1919). The Secretary of the Interior recognized that a discovery made after passage of the Mineral Leasing Act was sufficient to preserve an oil and gas mining claim under Section 37 if the claimant had diligently prosecuted work leading to the discovery. Oil and Gas Regulations, 47 L.D. 437, 462 (1920); McGee v. Wootton, 48 L.D. 147 (1921); A. Leslie Parker, 54 I.D. 165 (1933). The same rule would apply to oil shale mining claims. Therefore, an oil shale mining claim would be protected from the withdrawal of Section 37 by its own terms even though a discovery was not made until after the effective date of the withdrawal, if on that date the claimant was diligently prosecuting work that led to a discovery. However, the facts surrounding the claims at issue in *Winegar* appear to be such that the result would not be affected by this nicety.

the part of the oil shale industry, and (3) every oil shale operation initiated in the United States failed to show profitable production.[83] Therefore, the Board concluded that there was no reasonable prospect of success in developing a profitable mine within the boundaries of the claims either at the date of its decision or in 1920, and it held the claims at issue null and void for lack of discovery of a valuable mineral deposit. The Board noted that its opinion was in conflict with the Department's decision in *Freeman v. Summers,* which held that present profitability was not a requirement for the patenting of oil shale mining claims. The Board expressly overruled *Freeman v. Summers* as being contrary to the requirements of the General Mining Law.[84]

The oil shale mining claimants sought judicial review of this Departmental action which culminated in an opinion by the Supreme Court in *Andrus v. Shell Oil Co.*[85] After a brief review of the legislative history of the Mineral Leasing Act of 1920, the Court concluded that Congress did not consider present marketability a prerequisite to the patentability of oil shale mining claims. The Court found evidence that Congress was well aware that oil shale had no commercial value in 1920. Nevertheless, oil shale mining claims are specifically mentioned in the savings clause of Section 37, and the Court concluded that the lack of present marketability or profitability was not perceived by Congress as an obstacle to the patentability of those claims.[86] The Court then turned its attention to the actions taken by the Department of the Interior with respect to oil shale mining claims, including the decision in *Freeman v. Summers* and the subsequent issuance of patents under the principles announced therein over a period of some thirty years. The Court observed that Congress had reviewed those actions at various times, and ruled that Congress had ratified the principles applied by the Department with respect to the patentability of oil shale mining claims prior to 1960. The Court concluded by saying:

> [T]he government cannot achieve that end [invalidation of oil shale mining claims] by imposing a present

83. United States v. Winegar, *supra* note 23, at 163.
84. *Id.* at 170.
85. 446 U.S. 657 (1980).
86. *Id.* at 666.

> marketability requirement on oil shale claims. We conclude that the original position of the Department of the Interior, enunciated in the 1920 Instructions and in *Freeman v. Summers,* is the correct view of the Mineral Leasing Act as it applies to the patentability of those claims.[87]

While the *Shell* case was being considered by the courts, the Department of the Interior initiated administrative procedures to determine whether the holders of the claims at issue in *Oil Shale Corp.* had substantially complied with the annual labor requirement. Shortly before a final agency decision on that issue was announced by the Interior Board of Land Appeals, the Supreme Court issued its opinion in *Shell.* The United States District Court for the District of Colorado, which had retained continuing jurisdiction over the *Oil Shale Corp.* case, ordered the Department of the Interior to complete administrative proceedings on all issues relating to the validity of the claims at issue in that case, including the issue of discovery of a valuable mineral deposit.[88] As a result, the Department of the Interior issued two opinions in 1980 that apply the principles of the Supreme Court decisions on annual labor and discovery of a valuable mineral deposit to unpatented oil shale mining claims.

In *United States v. Bohme,* the Interior Board of Land Appeals ruled that the Supreme Court decision in *Oil Shale Corp.* makes it clear "beyond peradventure" that in order to maintain an oil shale mining claim in compliance with the Mining Law of 1872, $100 worth of assessment work must be done for the benefit of each claim each year.[89] Three separate groups of claims were at issue in this proceeding. The Board held that there was substantial compliance with the annual labor requirement for one group of claims for which the evidence established that work was done for 39 of the 43 years between the date of location of the claims and the date the contest was initiated. With respect to claims for which annual labor ceased in 1938 or 1939, the Board found there was no substantial com-

87. *Id.* at 672-73.
88. Oil Shale Corp. v. Udall, Civil No. 8680 (D. Colo. Aug. 13, 1980) (pre-trial order 1980-5).
89. 48 I.B.L.A. 267, 317 (1980).

pliance with the assessment work requirement. Even less work was performed on the third group of claims, and they were also declared void.

A second decision in *United States v. Bohme* deals with the issue of discovery of a valuable mineral deposit for the same three groups of claims.[90] The contestant's opening brief in this phase of the case argued that the Supreme Court decision in *Andrus v. Shell Oil Co.* only settled one of two issues raised by the discovery requirement.[91] The Court clearly held that oil shale need not be presently marketable at a profit, or marketable at a profit in 1920, to constitute a valuable mineral deposit patentable under the General Mining Law. However, contestants asserted that the Supreme Court did not squarely address the issue of the nature of the exposure of a mineral deposit that is necessary for a discovery, even though it concluded that *Freeman v. Summers* stated the correct view of the principles governing the patentability of oil shale mining claims. Despite the Court's reference to *Freeman v. Summers,* which held that the existence of a rich shale deposit at depth could be inferred from the exposure of oil shale deposits of the Green River formation at the surface, the contestants argued that the General Mining Law requires "a physical finding within the boundaries of a claim of an ore body capable of exploitation."[92] The Board implicitly adopted that proposition when it held that only an exposure of the Parachute Creek member of the Green River formation within the boundaries of a claim can be inferred to embrace a sufficient quantity of high grade oil shale to constitute a discovery of a valuable mineral deposit. [93] Applying this standard, the Board held that all of the claims in one group and a portion of the claims in a second group were adequately supported by a discovery, but the remainder of the claims were null and void because of the absence of discovery of a valuable mineral deposit. Taking the two *Bohme* decisions together, virtually all of the oil shale mining claims at issue were held to be null and void.

90. 51 I.B.L.A. 97 (1980).

91. Contestant's Opening Brief at 5-9, United States v. Bohme, 51 I.B.L.A. 97 (1980).

92. *Id.* at 12. The Department has not uniformly imposed a requirement that there be an actual exposure of the deposit for which there is a reasonable prospect of success in developing a valuable mine. *See* 1 AMERICAN LAW OF MINING, *supra* note 32, at § 4.72.

93. The Parachute Creek member is one of three zones of the Green River formation that contains the richest deposits of oil bearing shale. U.S. OFFICE OF TECHNOLOGY ASSESSMENT, *supra* note 8, at 93-99.

D. Current Status and Conclusion

The owners of the claims declared invalid by the Interior Board of Land Appeals in *United States v. Bohme* have sought judicial review of those decisions before the United States District Court for the District of Colorado in the context of the *Oil Shale Corp.* case.[94] Generally, the claimants have argued that the Department of the Interior has misinterpreted the decisions of the Supreme Court and imposed excessively stringent standards when ruling on both the annual labor issue and the issue of discovery of a valuable mineral deposit. Additionally, the claimants continue to argue that the Department of the Interior is precluded by the doctrine of estoppel from applying any standards other than those applied when oil shale patents were issued between 1930 and 1960 when making determinations on the validity of their claims.[95] The case has been fully briefed and submitted to the court for decision.

The United States District Court for the District of Colorado recently revived the six cases involving oil shale mining claims declared invalid by the Department of the Interior in *Union Oil Co.* which were suspended pending final resolution of the issues in *Oil Shale Corp. v. Udall.* The court ordered the Department of the Interior to take final administrative action with respect to all issues concerning the validity of those claims. The claimants and the Department submitted an agreed upon schedule which was adopted by the court that will have the Department complete action on approximately 375 claims no later than July 1, 1983.[96]

A review of the oil shale mining claim litigation reveals that despite 60 years of activity, the principles governing the validity of oil shale mining claims remain in dispute. The Supreme Court decision in *Hickel v. Oil Shale Corp.* left the Department of the Interior with the task of defining "substantial compliance" with the annual labor requirement, and the Department's interpretation is being contested by the

94. Amended complaints were filed by the claimants in November, 1980.

95. The United States District Court for the District of Colorado has previously ruled in the claimant's favor on this issue. Oil Shale Corp. v. Morton, *supra* note 69. However, the Tenth Circuit Court of Appeals vacated that decision with instructions that the matter be remanded to the Department of the Interior for further findings of fact. Oil Shale Corp. v. Morton, Nos. 74-1344, 1345, 1346 & 1347 (10th Cir. September 22, 1975).

96. Hugg v. Udall, Civil No. 9252 (D. Colo. May 8, 1981) (order 1981-2).

claimants. On the issue of discovery of a valuable oil shale deposit, it has been established that oil shale need not be presently marketable in order to be patentable under the mining law. However, the Department of the Interior has taken the position that there must be an exposure of rich shale within the boundaries of a mining claim before it can be said that there has been a discovery of valuable oil shale deposit. The consistency of this position with the Supreme Court's decision in *Andrus v. Shell Oil Co.* will be litigated, along with the annual labor issues, over the next few years.

Even if the principles governing the validity of oil shale mining claims were clearly defined, it would take the Department of the Interior years to make those determinations. The schedule recently developed by the Department for completion of administrative action on the claims before the District Court in Colorado contemplates final action on about one-fifth of the total claims outstanding in two and one-half years, even with additional money and manpower being dedicated to the task. Assuming a similar level of effort for the remaining claims, it would take ten to twelve years to complete action on the outstanding oil shale mining claims.

An alternative approach to the disposition of oil shale mining claims is needed if there is to be a resolution of the title uncertainties in the near future.

II. CRITERIA FOR EVALUATION OF ALTERNATIVES

Any proposal developed to effect a final disposition of oil shale mining claims should be designed to achieve the primary objective of certainty of title to the lands they cover in the near term. Confusion over land title should not be permitted to continue to obstruct plans for oil shale development.

A program developed to meet that objective must reflect a sensitivity to the competing interests of the parties involved and certain public policy considerations, and will be circumscribed by the existing legal parameters for the disposition of federal oil shale lands, to the extent those parameters are discernible. The legal and public policy considerations that

should guide development of a program for disposition of oil shale mining claims are described below.

A. Comprehensiveness

The program must be comprehensive in scope. All claimants should participate in the program to its conclusion. A plan that does not include all claimants can only partially succeed in achieving the objective of clarifying title to the lands covered by the claims. If claimants merely rest on their asserted rights without proceeding expeditiously to a resolution of the dispute, development will continue to be thwarted by title uncertainties.

B. Risk of Litigation

A program for disposition of oil shale mining claims must be designed to minimize the possibility of litigation or collateral attack before the courts. No net gain will be achieved if the attempt to resolve the oil shale mining claim problem itself becomes the subject of years of litigation.

The possibilities for litigation center on the authority of the Secretary of the Interior to effect a just solution and the procedures that must be followed to achieve that result. It is clear that Congress has plenary authority over the management and disposal of federal lands under the United States Constitution.[97] Congress may delegate its authority over federal lands to the executive branch of government, but any action taken by the executive must be authorized by Congress either expressly or by necessary implication.[98] In addition to the general limitations of statutory authority, the courts have recognized that the Secretary of the Interior owes a special duty to the people of the United States with respect to the disposal of federal lands. In *Knight v. United States Land Association,* the Supreme Court observed,

> [t]he Secretary is the guardian of the people of the United States over the public lands. The obligations of his oath of office oblige him to see that the law is carried

97. U.S. CONST. art. IV. § 3, cl. 2; Gibson v. Chouteau, 80 U.S. (13 Wall.) 92 (1872).
98. Van Lear v. Eisele, 126 F. 823 (E.D. Ark. 1903). This is a specific application of the general rule of administrative law that an executive agency granted power by Congress to carry on governmental activities is limited in the actions it may take by the authority granted. Stark v. Wickard, 321 U.S. 288 (1944).

> out, and that none of the public domain is wasted or is disposed of to a party not entitled to it.[99]

This affirmative duty has been recognized in subsequent cases.[100] Thus, any plan for resolution of the oil shale mining claim problem that involves the transfer of lands out of federal ownership must be authorized by the statutory provisions governing the disposition of federal oil shale lands. If existing law does not provide sufficient flexibility to achieve a just resolution, then additional authority must be sought from Congress.

There are also a number of procedural requirements mandated by statute that must be met by an executive agency when formulating a new program. The most prominent of these procedural requirements is the environmental impact statement that must be prepared under Section 102(2)(c) of the National Environmental Policy Act[101] to analyze the impacts of any major federal action significantly affecting the quality of the human environment. A proposal that calls for the disposal of federal oil shale lands must be consistent with the Bureau of Land Management's land-use plans developed under Section 202 of the Federal Land Policy and Management Act.[102] Other statutes that might require consultations prior to adoption or implementation of a proposal for the disposition of oil shale mining claims are the Endangered Species Act of 1973, as amended,[103] and the Historic Preservation Act.[104] If a proposal requires the promulgation of regulations, they must be developed in accordance with Executive Order 12291[105] and the Paperwork Reduction Act of 1980.[106] Adequacy of the steps taken to comply with these procedural requirements is often the subject of judicial action that delays implementation of a new program. The risk of that kind of litigation can be minimized either through selection of an alternative that does not trigger the requirements or through careful planning and execution of compliance efforts.

99. 142 U.S. 161, 181 (1891).
100. Cameron v. United States, 252 U.S. 450 (1920); Palmer v. Dredge Corporation, 398 F.2d 791 (9th Cir. 1968).
101. 42 U.S.C. § 4332(2)(C) (1976).
102. 43 U.S.C. § 1712 (1976); 43 C.F.R. § 1601.6-2 (1980).
103. 16 U.S.C. § 1531 (1976); 16 U.S.C. § 1536(a) (Supp. III 1979).
104. 16 U.S.C. § 470f (1976).
105. 46 Fed. Reg. 13,193 (1981).
106. Pub. L. No. 96-511, 94 Stat. 2812 (codified in scattered sections of 5, 20, 30, 42, 44 U.S.C.).

C. Fair Treatment of the Claimants

The holders of oil shale mining claims have invested a considerable amount of time and money in acquiring and maintaining those claims and they have developed expectations as to what that investment will yield. Those expectations center on obtaining a secure land tenure in the form of fee title that will provide a reasonable opportunity to develop the oil shale resource free of any continuing regulatory control by the Secretary of the Interior. The cooperation and support of the claimants will be important in effecting a solution to the oil shale mining problem, and that can best be obtained by pursuit of a solution that treats them fairly.

D. Public Benefits

The purpose of the General Mining Law and the Mineral Leasing Act is to encourage and secure the development of the mineral resources of the public lands.[107] The public has a right to expect that oil shale development will actually occur upon disposal of federal oil shale lands. In addition to the benefits inuring from development, Congress has expressed a general policy of obtaining a fair market value upon disposition of public lands in two recently enacted statutes.[108]

E. Socio-Economic and Environmental Impacts

Disposition of oil shale lands will indirectly affect the physical and socio-economic environment by encouraging development of oil shale resources. Citizen groups have filed litigation in the past in an attempt to insure that those impacts are properly considered in federal oil shale decision-making.[109] As indicated above, various statutes may require formal consideration of the impacts of a new program to dispose of oil shale mining claims before the program is adopted and implemented. Regardless of the applicability and scope of the

107. McKinley v. Wheeler, 130 U.S. 630 (1889); Harvey v. Udall, 384 F.2d 883 (10th Cir. 1967).

108. In the Federal Land Policy and Management Act Congress declared as a matter of policy that the United States should "receive fair market value for the use of the public lands and their resources." 43 U.S.C. § 1701(a)(9) (1976). In the mineral leasing context, the Federal Coal Leasing Amendments Act requires that the Secretary obtain fair market value for coal leases. 30 U.S.C. § 201(a)(1) (1976). At least one of the oil shale bills currently pending before Congress would require the Secretary to obtain "[n]o . . . less than fair market value" for leases of oil shale deposits. S. 1383, 97th Cong., 1st Sess. § 2(3)(e) (1981).

109. Environmental Defense Fund v. Andrus, 619 F.2d 1368 (10th Cir. 1980).

legal requirements, opposition to a program that would make substantial areas of federal land available for oil shale development can be reduced through consideration of the full range of foreseeable impacts and the development of features in the disposal program that minimize those impacts through appropriate regulation during the course of development.

F. Time and Cost of Implementation

Any proposal for disposition of oil shale mining claims will require a certain level of effort to implement. For the claimants, those efforts might involve corporate decision-making on the acceptability of available options, conducting field studies or further exploration work, and the preparation and prosecution of certain applications. For the federal government, those efforts might involve the adjudication of all of the outstanding claims or the promulgation of regulations establishing a new claim disposal program in compliance with the various prescribed procedures. The level of effort required for implementation must be considered for consistency with the objective of resolution of title uncertainty in the near term.

III. ALTERNATIVES

The alternatives for disposition of oil shale mining claims generally involve the transfer of a property interest from the federal government to the claimants, and they can be grouped for purposes of analysis according to the nature of the interest in oil shale lands that would be granted.[110] The following discussion will identify alternatives under existing law, suggest any legislative initiatives that may be desirable, and evaluate the alternatives in terms of the criteria discussed above.

A. Issuance of Patents for Lands Covered by Oil Shale Mining Claims

The Department of the Interior could begin issuing patents for lands covered by oil shale mining claims under a liberalized

110. The exception to this generalization would be a proposal to simply cancel the claims. Cancellation would have to be accomplished by Congress since valid mining claims constitute a property right as against the United States, United States v. Barrows, 404 F.2d 749 (9th Cir. 1968), *cert. denied*, 394 U.S. 974 (1969), and the Secretary has not been granted general condemnation authority. 43 U.S.C. § 1715(a) (1976). If cancellation resulted in the taking of a valid claim, the claimant would have a right of action before the Court of Claims, but an action in that forum would not cloud the title to oil shale lands. 28 U.S.C. § 1491 (1976). Cancellation of the claims would achieve the objective of clarifying land title. However, it would not result in any additional oil shale lands being made available for development which makes it unattractive as an alternative.

set of principles governing the validity of those claims. Before the Department undertook such an action, it would be necessary to articulate an interpretation of the applicable statutes which would allow a conclusion that all or most of the claims should pass to patent. This statement would identify the standards to be applied in determining whether there has been substantial compliance with the annual labor requirement and a discovery of valuable mineral deposit so as to entitle the claimant to receive a patent.

Once these standards were established, the Department would adjudicate each of the claims to determine whether they are in fact valid. This would require the Bureau of Land Management to conduct field examinations to determine the physical characteristics of the claims and an examination of available records on performance of annual labor. The results of those investigations would be presented in the form of reports to the agency decision-makers. It is likely that at least some claims will not meet whatever liberalized standards are adopted, and contest proceedings would have to be initiated with respect to those claims to confirm title in the United States.

There are two possible variations of this basic alternative. First, the Department of the Interior could issue patents in settlement of litigation involving certain claims. Under this variation, the parties to the litigation would agree among themselves that a certain number claims would be patented by the government and that other claims would be quitclaimed to the United States by the claimants. The percentage of the claims held by a particular claimant that would pass to patent might vary depending upon the strength of the claims at issue. Implementation of this variation might not require an articulation of liberalized standards governing the patentability of oil shale mining claims given the attorney general's broad authority with respect to the conduct of litigation affecting the interests of the United States.[111]

The second variation of this basic alternative would have the Department of the Interior issue patents for oil shale min-

111. 28 U.S.C. §§ 516-20 (1976).

ing claims with conditions attached designed to produce certain public benefits. Implementation would follow the pattern of the basic alternative requiring adjudication of claims under liberalized standards governing their validity, but would require additional concessions from the claimants in the form of conditions or stipulations included in the patent. These conditions or stipulations might be designed to insure diligent development of the resource, to require the patentee to take steps to mitigate adverse environmental and other impacts, or require the patentee to make bonus or royalty payments to the United States. A failure to fulfill these stipulations or conditions could cause a reversion of title to the land to the United States.

It appears unlikely that adoption of a program under existing law designed to result in the issuance of patents for a substantial number of oil shale mining claims will achieve the goal of certainty of title in the near term. First, these proposals present significant legal problems. Since these principles have long been in dispute, it will be difficult to develop a defensible legal interpretation of the statutes governing the validity of oil shale mining claims that will enable the Secretary to issue patents for a significant number of those claims.

The ambiguous decision in *Andrus v. Shell Oil Co.* leaves the Secretary some flexibility on the discovery issue. The Secretary could completely embrace the principles announced in *Freeman v. Summers* on the basis of the Supreme Court's decision and take the position that exposure of any oil shale of the Green River formation is sufficient to allow the inference of exploitable deposits at depth so as to constitute a discovery of a valuable mineral deposit. Although that position might be questionable factually, it is probably legally defensible. However, the clear pronouncement in *Hickel v. Oil Shale Corp.* on the need to substantially comply with the annual labor requirement will tie the Secretary to a standard that is likely to invalidate a substantial number of claims. The plain meaning of the term substantial is "being that specified to a large degree or in the main."[112] If the claims at issue in *United*

112. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 2280 (1976).

States v. Bohme are representative, it appears that there was not substantial compliance with the annual labor requirement over the life of most of the claims. At best, the Secretary might be justified in excusing the performance of annual labor for the years between *Ickes v. Virginia-Colorado Development Corp.* in 1935 and *Hickel v. Oil Shale Corp.* in 1970.[113] However, even under that line of reasoning, many of the claims in *Bohme* would have been declared null and void.

Any liberalization of the principles governing the validity of oil shale mining claims that is inconsistent with the opinions of the Supreme Court would be difficult to square with the Secretary's duty as guardian of the public lands and would present a considerable risk of litigation to enjoin the patenting program because of the environmental and socio-economic impacts of oil shale development on patented lands. Additionally, it is likely holders of any claims found invalid under the liberalized standards would initiate a new round of litigation that may call the foundation of the patenting program into question.

The variation of this alternative that would have the Secretary issue conditional patents is probably not unlawful. Although this variation has been suggested in the past by some of the claimants, the Secretary does not have general authority to attach conditions or stipulations to patents issued under the General Mining Law.[114] However, the parties might be able to achieve the desired result through a separate contractual arrangement imposing duties that run with the land.

Additionally, the Secretary cannot require the oil shale mining claimants to participate in a patenting program so as to insure clarification of land title. There is no requirement under the General Mining Law that a claimant obtain a patent for the

113. This result seems to be the most that can be gained from the estoppel argument advanced by the claimants in *Oil Shale Corp. v. Udall.* It is unlikely that the Department of the Interior can be estopped completely from enforcing the annual labor requirements on the basis of statements made by Departmental officials which were legally erroneous according to the Supreme Court in *Hickel v. Oil Shale Corp. See Atlantic Richfield Co. v. Hickel,* 432 F.2d 587 (10th Cir. 1970). However, the Department might consider itself estopped from enforcing the requirement for those years during which the decision in *Ickes v. Virginia-Colo. Development Corp.* appeared to support its assertions that performance of annual labor was not required.

114. Deffenbeck v. Hawke, 115 U.S. 392 (1885); 2 AMERICAN LAW OF MINING § 9.29A (1980).

lands covered by his claim, even if he is entitled to one.[115] However, the redefinition of the standards governing the validity of oil shale mining claims that would serve as the foundation for a patenting program might serve to clarify the status of the outstanding claims even in the absence of a formal adjudication of those claims.

Of course, the shortcomings of a patenting program under existing law can be remedied through enactment of oil shale mining claim legislation.

Congress could pass legislation that would direct the Secretary of the Interior to issue patents for oil shale mining claims upon application by the claimants. The legislation could either specify the standards that would govern a determination whether a particular claim should pass to patent[116] or it could simply direct that patents be issued for all claims properly recorded under the Federal Land Policy and Management Act. The legislation should direct the claimants to apply for patents within a specified period of time and failure to make application for patent in a timely manner should result in cancellation of the claim. The Secretary should be directed to take prompt action on the patent applications and encouraged to use the authority granted by Section 304 of the Federal Land Policy and Management Act[117] to impose charges and fees to defray the costs of processing the patent applications.

Congressional enactment of such legislation would achieve the objective of clarifying title to federal oil shale lands in a comprehensive manner. Further litigation over the standards governing the validity of oil shale mining claims would be eliminated if the standards governing the patentability of the claims were stated in unambiguous terms. An imprecise statement of those standards would merely shift the focus of litigation brought by the holders of those claims found invalid.

115. The holder of a valid mining claim has the exclusive right to possession and enjoyment of the surface and mineral estate within the boundaries of the claim, and the preservation of this right is not dependent upon application being made for a patent. 30 U.S.C. § 26 (1976); Black v. Elkhorn Mining Co., 52 F. 859 (9th Cir. 1892), *aff'd*, 163 U.S. 445 (1896).

116. In specifying the amount of annual labor required for a claim to pass to patent Congress could determine that annual labor should be entirely excused because of the varying legal interpretations of the requirement, or it could identify the years during which annual labor must have been performed. On the issue of discovery of a valuable mineral deposit, Congress could specifically endorse the principles of *Freeman v. Summers* and decree that any exposure of oil shale of the Green River formation is an adequate discovery.

117. 43 U.S.C. § 1735 (1976).

A patenting program will be considered the most equitable solution to the problem by the claimants. The oil shale mining claimants acquired and hold their claims with the expectation that eventually they will receive a patent for those lands granting them full fee title upon payment of the statutorily fixed price. A proposal calling for settlement of the oil shale mining claim problem through a grant of a lesser property interest, such as a lease, or requiring a larger cash payment to obtain a patent, will be considered unattractive by the claimants because it would be inconsistent with their current expectations.

However, the issuance of patents for oil shale mining claims under liberalized standards may not yield adequate benefits to the public. If patents were issued under a standard for discovery of valuable mineral deposit that did not require a reasonable prospect of success in developing a valuable mine, there would be little assurance that the public would receive benefits from actual oil shale development, and the statutorily prescribed purchase price of $2.50 per acre[118] is less than the current fair market value of oil shale lands. Establishment of a comprehensive patenting program through legislation would allow Congress to address this issue.

Since a patenting program results in the alienation of public lands, regulatory mechanisms other than continuing supervision by the Secretary of the Interior would be brought into play to deal with the socio-economic and other impacts associated with oil shale development. Any development project would be subject to regulation under the Clean Air Act,[119] and Clean Water Act,[120] state mined land reclamation laws[121] and local regulatory processes.[122] These laws and the cooperation of oil shale developers can effectively mitigate the adverse impacts associated with oil shale development.

A patenting program that requires the adjudication of each and every claim will take some time to implement, even if

118. 30 U.S.C. § 37 (1976). The prices paid in 1974 to obtain 5,120 acre leases as part of the Department of the Interior's Prototype Oil Shale Leasing Program ranged from $45 million to $210 million. U.S. OFFICE OF TECHNOLOGY ASSESSMENT, *supra* note 7, at 37.
119. 42 U.S.C. §§ 7401-7508 (Supp. III 1979).
120. 33 U.S.C. § 1342 (1976).
121. *See, e.g.*, COLO. REV. STAT. § 34-32-101 (Supp. 1980); UTAH CODE ANN. § 40-8-1 (Supp. 1979).
122. *See, e.g.*, UTAH CODE ANN. § 17-5-27 (1953).

the standards governing the adjudications are settled by agreement of the parties or legislation. It will be necessary for the Department of the Interior to develop a factual record containing substantial evidence of the claimant's entitlement to a patent before the instrument can be issued. The claimants can assist in implementation by developing information for submission with their applications that would allow the Department to make a decision without conducting its own extensive field studies. The variation of disposing of oil shale mining claims through settlement of litigation is inherently cumbersome and it does not provide a useful model for a program that must dispose of a significant number of claims.

Implementation of a patenting program is least likely to be successfully challenged because of a failure to adequately comply with procedural requirements for adoption and implementation of the program. The issuance of patents under mining law is a non-discretionary, ministerial function that need not be preceded by preparation of an environmental impact statement or consultations under other environmental laws.[123] Nor would there be a need to promulgate regulations in order to implement a patenting program.

B. Lease Exchange Program

A second basic alternative for disposition of oil shale mining claims would be for the Secretary of the Interior to develop a program whereby oil shale leases would be issued to those holding mining claims in exchange for relinquishment of the claims. Section 21(a) of the Mineral Leasing Act[124] confers broad authority on the Secretary of the Interior with respect to the issuance of leases for lands containing oil shale deposits. The Secretary has authority under that statutory provision to establish by regulation a program pursuant to which federal oil shale leases would be issued on a non-competitive basis for lands covered by oil shale mining claims in return for relinquishment of those claims, regardless of their validity under the General Mining Law.

There is one variation to this basic alternative that would have the Secretary develop a program for the issuance of lease

123. State of South Dakota v. Andrus, 462 F. Supp. 905 (D.S.D. 1978), *aff'd*, 614 F.2d 1190 (8th Cir. 1980), *cert. denied*, 449 U.S. 822 (1980).

124. 30 U.S.C. § 241(a) (1976).

bidding credits in return for the relinquishment of oil shale mining claims. These bidding credits, once issued, could be used in payment of bonus bids in future competitive oil shale lease sales or lease sales for other minerals such as coal, oil and gas, sodium or phosphate. The value of the bidding credits could be determined by reference to the amount of the claimant's investment in the claim or it could be set at the fair market value of the claim discounted a certain percentage because of uncertainty as to its validity. Presumably the value of the bidding credits could be fixed by agreement of the parties without need for a full adjudication of the validity of the claims. There is precedent for the issuance of such bidding credits in return for the relinquishment of property interests in the exchange provisions of the Federal Coal Management Program.[125]

There is one provision of Section 21(a) of the Mineral Leasing Act that warrants special attention in connection with a discussion of claim for lease exchanges. That provision states:

> Any person having a valid claim to such minerals under existing laws on January 1, 1919, shall, upon the relinquishment of such claim, be entitled to a lease under the provisions of this section for such area of the land relinquished as shall not exceed the maximum area authorized by this section to be leased to an individual or corporation. No claimant for a lease who has been guilty of any fraud or who had knowledge or reasonable grounds to know of any fraud, or who has not acted honestly and in good faith, shall be entitled to the benefits of this section.[126]

This provision is similar to Sections 18 and 19 of the Act[127] dealing with oil and gas mining claims in that they all grant special relief to claimants by creating an entitlement to property interests granted under the Act in return for relinquishment of any claim under the General Mining Law. This amounts to special relief because it is an alternative to the right to perfect a claim under the General Mining Law granted

125. 43 C.F.R. §§ 3400.0-5(f), 3435.1 (1980).
126. 30 U.S.C. § 241(a) (1976).
127. 30 U.S.C.A. §§ 227, 228 (West 1976).

by the savings clause of Section 37 which was not conferred upon all of the holders of claims for what became leasable minerals.[128]

The usefulness of this provision as a vehicle for disposition of mining claims is limited in two important respects. First, only those holding a valid claim are entitled to receive a lease in return for its relinquishment. The legislative history of the Mineral Leasing Act makes it clear that Congress used the term advisedly and recognized that a valid claim is one that is properly located and supported by a discovery of a valuable mineral deposit.[129] Second, the claim must have been valid on January 1, 1919, thereby excluding any claim located after that date but before the passage of the Mineral Leasing Act on February 25, 1920.

However, the provision is intriguing because it does not set a time limit for filing a lease application as was done with oil and gas claims, nor does it appear to require that the claim be maintained thereafter in accordance with the General Mining Law through performance of annual labor to later qualify for an exchange. The general requirement of Section 37 that claims be properly maintained through the performance of annual labor is inapplicable for two reasons. First, it is not *in pari materia* with this provision of Section 21 because the two sections provide separate forms of relief to mining claimants. Second, the claims would not need to be preserved under Section 37 because the lands they cover would be disposed under the leasing act, not the General Mining Law. Additionally, the Supreme Court ruled in *Wilbur v. United States ex rel. Krushnic* that failure to perform annual labor did not *ipso facto* render a claim invalid, but rather only opened it to challenge by the United States.[130] Thus, in the absence of such a challenge, it appears that the holders of a claim that was valid on January 1, 1919, is entitled to a lease for the lands covered by the claim under Section 21 of the Mineral Leasing Act.

Nevertheless, it is unlikely that a lease exchange alternative developed under existing law will achieve the goal of

128. No such provision is found in the sections of the Act dealing with phosphate, for example.
129. *See, e.g.*, 56 CONG. REC. 567, 641,7034 (1918) (remarks of Mr. Pittman and Mr. Raker); 58 CONG. REC. 4578-85 (1919); 58 CONG. REC. 7781 (1919) (remarks of Mr. Sinnott).
130. *See* text accompanying notes 48 to 55, *supra*.

certainty of title to oil shale lands in the near term. The usefulness of a lease exchange program established under the general authority of Section 21 will be limited by legal constraints that will impose additional restrictions upon the specific lease exchange authority conferred upon the Secretary by that section. Although the Secretary of the Interior has broad discretion in determining when and under what conditions oil shale leases should be issued, Section 21 of the Mineral Leasing Act does impose certain restrictions upon the terms of the leases actually issued. No oil shale lease may be larger than 5,120 acres, and only one lease may be issued to any one person, association or corporation. These limitations will make the disposition of oil shale mining claims through a lease exchange program unattractive for the majority of claimants because their holdings exceed 5,120 acres and taking an exchange lease would preclude them from participating in future federal oil shale lease sales. The variation of issuing bidding credits in exchange for relinquishment of oil shale mining claims that could be used to acquire mineral leases suffers from these same limitations unless the claimant is interested in exercising the credits to acquire leases for other minerals.[131]

A lease exchange program suffers from the same deficiencies as a patenting program on the issue of comprehensiveness. The Secretary's broad authority in issuing leases does not enable him to require the relinquishment of mining claims in exchange for the issuance of a lease. Participation in the program could be encouraged by limiting its duration, but the effect of that approach is uncertain.

The limitations of existing law on the Secretary's authority to establish and implement an exchange program that would effectively dispose of the oil shale mining claims can be lifted by Congress. Congress could pass legislation that would direct the Secretary of the Interior to issue leases on a preference right basis to those individuals holding mining claims duly recorded under the Federal Land Policy and Management Act who relinquish their claims and make application for a lease.

131. The United States House of Representatives passed H.R. 4053 on July 28, 1981, which increases the maximum oil shale lease size to 15,460 acres and allows the acquisition of one additional lease if production on an existing lease is within fifteen years of exhausting the commercially recoverable reserves. It is unlikely that these limited changes would make a lease exchange program attractive to holders of large numbers of mining claims.

Such leases would have to be exempted from the size and number limitations of current law. The time for filing lease applications should be limited to one year after date of enactment. The Secretary should be directed to begin work immediately on the studies necessary to comply with the National Environmental Policy Act and other environmental laws prior to lease issuance, and leases should be issued within three years of the date of enactment. Those claims covered by lease applications would be cancelled upon lease issuance. All claims that are not the subject of a lease application would be cancelled at the end of the one year application period. Any claimant believing that the cancellation of his claim amounted to taking of property without payment of just compensation could pursue the matter in the Court of Claims. However, the litigation over the validity of the claim in that forum would not continue to cloud the title to oil shale lands.

Leases would be issued under this program upon relinquishment of claims without a determination as to whether the claims are valid, *i.e.,* whether they are supported by a discovery of a valuable mineral deposit and were maintained through substantial compliance with the annual labor requirement. The legislation would reflect a policy judgment that recordation of the claim under the provisions of the Federal Land Policy and Management Act is a sufficient indication of interest to entitle the claimant to a preference right lease. In this respect, the legislation would resemble Section 19 of the 1920 Act, which authorized the Secretary to issue a prospecting permit that could mature into a lease to a person relinquishing an oil and gas mining claim even though that claim would not be entitled to pass to patent.[132]

The term of these exchange leases should be specified and should be of sufficient length to allow reasonable development of the property. Congress must also address the issue of appropriate return to the public for disposal of oil shale lands under this leasing program. Relinquishment of an oil shale mining claim should be sufficient consideration for the issuance of an oil shale lease so as to obviate the need for any bonus bid payment. Rental and royalty rates should be

132. 30 U.S.C. § 228 (West 1976). The issuance of oil shale prospecting permits would be inappropriate given the current state of knowledge concerning the oil shale deposits of the Green River formation.

specified at a level which reflects a balance between the policy of a fair return to the public for the disposal of public oil shale deposits and the claimant's expectation that no such payments would be required.

The Secretary of the Interior should be left free to set other lease terms and conditions. Although immediate development of all the lands covered by the exchange leases would probably not be desirable, the Secretary should be left with discretion to establish diligent development requirements for particular leases in order to effect a pattern of development designed to maximize resource recovery.

A program to dispose of oil shale mining claims through the issuance of leases in exchange for relinquishment of the claims could provide the claimants with most of what they could obtain under the General Mining Law, but for the lease size and number limitations found in Section 21. An oil shale lease would grant the claimants the right to develop, produce and dispose of oil shale and its products along with the right to use so much of the surface of the lands containing the deposits as is necessary for those purposes. However, acceptance of a lease carries with it an obligation to pay rentals and royalties to the United States and subjects the developer to the continuing supervision of the Secretary of the Interior. Of course a lease would not grant the claimants a perpetual interest in the oil shale lands, but presumably the interests of the claimants are limited to exploitation of the oil shale deposits.

The continuing obligation of the Secretary to supervise operations on federal mineral leases to insure conservation of the mineral and other resources would give the Secretary a direct role in mitigating the adverse impacts of oil shale development. Further, under a leasing program, 50% of all of money collected by the United States for rentals, royalties or bonus bid payments is returned to the state in which the lease is located to provide funds for planning and the provision of public services necessitated by mineral development on federal lands.[133] The federal government's continuing interest in and control over oil shale lands leased under such a program may facilitate development on adjoining federal lands by making it

133. 30 U.S.C. § 191 (1976).

easier for other Federal lessees to obtain rights-of-way and other necessary surface use rights.[134]

As indicated above, a lease exchange program could be structured so as to avoid the need to adjudicate each and every one of the outstanding oil shale mining claims, which should reduce the time needed for implementation. However, such a program can only be implemented pursuant to regulations that will undoubtedly take several years to promulgate in compliance with the various administrative procedures and environmental laws that are applicable. Additionally, implementation of such a program may have an impact on the plans of the Department of the Interior for the leasing of those oil shale lands that are not unencumbered by oil shale mining claims, which tend to contain richer beds of oil shale.

The litigation risks associated with a lease exchange program come in the form of possible challenges to the adequacy of environmental statements, endangered species consultations, and compliance with other procedural requirements. However, these risks can be minimized through careful compliance with environmental and other laws during initial implementation of the program.

C. Split Estate

There is one possible alternative for resolution of the oil shale mining claim problem that falls in between the two types of alternatives discussed above. Under this alternative Congress would pass legislation[135] directing the Secretary to issue patents for the mineral estate of land covered by oil shale mining claims, either to all holders of claims recorded under the Federal Land Policy and Management Act or to the holders of claims meeting certain minimum standards as to discovery of a valuable mineral deposit and performance of annual labor. Title to the surface estate of those lands would be reserved to the United States subject to a servitude in favor of the domiminant mineral estate. That servitude would allow the owner of

134. All federal mineral leases reserve to the Secretary the right to grant surface use rights on the leasehold if not inconsistent with the existing or planned operations of the lessee. 30 U.S.C. § 186 (1976).

135. Legislation would be required if this alternative is to be pursued because there is no existing statutory scheme for the alienation of federal mineral deposits with a reservation of a surface estate. There are, of course, statutes that authorize the alienation of a surface estate in federal lands with a reservation to the United States of mineral rights. *See, e.g.*, 30 U.S.C. § 121 (1976); 43 U.S.C. § 291 (1976).

the mineral estate to enter upon the surface and make use of so much thereof as is reasonably necessary for exploration, development, mining, retorting and transportation of the oil shale, including the right to surface mine and to dispose of spent shale on the surface, subject to federal and state law. To insure actual development, the mineral estate patent should provide that if production of oil shale is not achieved within forty years, the estate would revert to the United States. As with the traditional patenting alternative discussed above, the legislation should direct claim holders to apply for patents within a specified period of time and the Secretary to take prompt action on the applications.

This alternative would meet the objective of clarifying title to oil shale lands. Procedures for implementation would be similar to those for traditional patenting alternative, with the likelihood of successful implementation again dependent upon an unambiguous statement of the standards governing entitlement to a patent for the mineral estate.

This alternative offers the claimants substantially all that they would be entitled to receive under the General Mining Law, and more than they could obtain under a lease exchange program. A patent to a dominant mineral estate will allow a claimant to develop the oil shale resource subject only to limited regulation by the Secretary of the Interior necessary to conserve surface resources and without any obligation for rental or royalty payments. Mitigation of adverse impacts would be achieved primarily through federal, state and local regulatory mechanisms.

At the same time, this alternative confers more benefits on the public than a traditional patenting approach. The reversion of the mineral estate for failure to achieve production insures that the public will receive the benefits of shale oil production if there is to be an alienation of the mineral deposit. The continuing interest of the United States in the surface estate makes it easier to facilitate development on adjoining lands and to integrate federal land management. Upon completion of mineral production and reclamation under state law the United States is left a surface estate that can be managed in conjunction with surrounding federal lands. Thus, the split

estate alternative provides a middle ground between the traditional patenting and leasing approaches to disposal of federal mineral lands.

IV. CONCLUSION

Litigation over the validity of oil shale mining claims has spanned a 60-year period and it appears that many more years of litigation lie ahead. Despite the best efforts of the courts and the parties involved, this litigation has not established the principles that govern the validity of oil shale mining claims so as to bring certainty to the title to those lands. The certainty of title that would result from a final disposition of oil mining claims is important for the future of an oil shale industry that holds the potential for supplying vast amounts of liquid fuel to the United States.

There are no alternatives available under existing law that will allow a comprehensive and timely resolution to the oil shale mining claim problem. The adoption of standards that would allow patents to issue for a substantial number of claims presents a considerable risk of judicial challenge on the grounds of inconsistency with the controlling Supreme Court decisions. Development of standards that would withstand such a challenge and still pass most of the claims to patent seems unlikely. The adjudications required under such a program will be expensive and could take several years to complete, and although this alternative would be considered fairest by the claimants, the return to the public in terms of actual oil shale development is uncertain.

The lease exchange alternative suffers from critical statutory limitations. The fact that a claimant could only obtain one lease covering 5,120 acres in return for relinquishment of its claims severely limits the usefulness of a lease exchange program as a settlement tool. A lease exchange program can provide a greater return to the public in terms of money payments and development requirements and it allows greater flexibility in dealing with the impacts of oil shale development. However, issuance of a lease that is subject to continuing supervision by the Secretary of the Interior in settlement of the claims is likely to be inconsistent with the

claimant's expectations, and a lease exchange program suffers from the inability to require participation so that land title status would actually be clarified.

Since there are no alternatives available under existing law for disposition of oil shale mining claims in the short term, a legislative solution must be considered. Congressional action on the oil shale mining claim problem is appropriate for at least two reasons.

First, the executive and judicial branches of the federal government have been unable to bring certainty to this area of public land law. The Secretary of the Interior initially decided that the annual labor requirement of the mining law should be applied to oil shale just as it was applied to other minerals, only to be rebuffed by the Supreme Court in *Virginia-Colorado Development Corp.* Then, some 35 years later, the Supreme Court determined that the Secretary's initial position was substantially correct in *Hickel v. Oil Shale Corp.*, which called into question the legality of the actions taken by the Secretary based on the Court's prior decisions.[136] On the issue of discovery of a valuable mineral deposit, the Secretary initially determined in *Freeman v. Summers* that the traditional mining law rules should be liberalized when applied to oil shale. After a subsequent Secretary overruled that decision, the Supreme Court held in *Shell Oil Co.* that the Department's initial position was at least partially correct, but whether the Court intended to endorse all of the principles in *Freeman v. Summers* is open to dispute.

Much of the argument in the recent litigation has centered on the intent of Congress with respect to oil shale when it passed the Mineral Leasing Act of 1920 and on congressional ratification of the actions of the Secretary of the Interior.[137] At least one court has observed that the uncertainties caused by oil shale mining claim litigation have resulted from "the infinite interpretation of an ambiguous statute."[138] There is an

136. The United States initiated efforts to cancel patents issued for claims for which there had not been substantial compliance with the annual labor requirement. United States v. Eaton Shale Co., 433 F. Supp. 1256 (D. Colo. 1977). Those efforts were held to be barred by the six-year statute of limitations on actions to annul or vacate patents, 43 U.S.C. § 1166 (1976), among other things.

137. *See, e.g.*, Andrus v. Shell Oil Co., *supra* note 24.

138. Oil Shale Corporation v. Morton, *supra* note 69, at 113.

obvious need for Congress to clarify its intent with respect to oil shale.

The second justification for congressional action on oil shale mining claims is that the executive branch of government does not have the flexibility under existing law to strike a balance between the competing policy considerations and establish a program that will resolve the oil shale mining claim problem in the short term. The General Mining Law and the Mineral Leasing Act reflect the judgment of Congress on the conditions under which disposal of federal mineral lands serves the public interest. The executive branch of government does not have power to alter or modify the conditions for disposal of mineral lands to deal with the unusual circumstances presented by oil shale claims.

Thus if there is to be a resolution of the oil shale mining claim problem in the near term, Congress must consider the policy factors inherent in the disposal of federal lands and develop a special program to deal with a unique and ancient problem.