Recent Mining Legislation and Its Effect on the Law of Discovery

BY

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FOREWORD

In the 1860's and 1870's a strong tide of empire was flowing westward. The people of the United States wanted their West to be developed rapidly. To this end they invited the pioneer, the railroad man and the miner to develop the resources of the West, holding out gifts of land as inducements—-to the pioneer, homesteads; to the first railroads, land grants; and to the miner, exclusive enjoyment of any mineral treasure he mined and the land upon which he found it.

These efforts succeeded. Americans produced new wealth in great abundance from the virgin lands of the West. But while they did well in the production of metals, livestock, lumber, they did even better in the production of more Americans. A rapidly increasing population put ever-stronger pressure on the diminishing public lands.

We have become increasingly aware of the need to husband and wisely use our remaining public lands. The development, in recent years, of the concept of multiple use of the public domain under intelligent resource management has brought a concurrent demand for reconsideration and revision of single-purpose "exclusive enjoyment" laws.

In this paper Professor Walenta analyzes recent changes in mining law designed to harmonize the miner's need to freely exercise his subsurface rights with the general need to share the use of the surface. In addition, he discusses a crucial point of American mining law: What constitutes discovery? This valuable contribution to understanding of mining law was first prepared as background for an address made by Professor Walenta to the Northwest Mining Association in December, 1959.

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RECENT MINING LEGISLATION AND ITS EFFECT
ON THE LAW OF DISCOVERY

by

Thomas R. Walenta*

INTRODUCTION

During the past decade, the policies and practices of the federal government in respect to the administration and disposition of the mineral resources on the public domain have undergone a series of important changes, occasioned primarily by a change in public thought and attitudes toward the conservation and use of our natural resources, reflected in the mineral industry by the enactment of a series of mining laws during the past five years (1).**

It is my purpose to review the underlying public policies which have guided the Department of the Interior, acting through the Bureau of Land Management, and the Courts, in their interpretation and application of these statutes to the general mining laws and to the law of discovery in particular.

The history of the administration and disposition of the public domain may be divided into four major, but overlapping periods (2):

1) Period of sale:

During this period, from 1784 to 1862, the western lands were treated as assets to be cashed at once in order to pay the current expenses of government and extinguish the public debt. Settlement on the public domain was discouraged until modified by the preemption laws of 1801-1880 (3).

2) Period of expansion and empire building:

When the effort to sell the lands became unsatisfactory the pendulum of public opinion swung to the opposite extreme and the federal government made every effort to give the public lands away.

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**Numbers in parentheses refer to numbered footnotes in list beginning on p. 20.

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During the next thirty years, Congress enacted the Homestead Act of 1862 (4), the Mining Law of 1872 (5), and made many grants to the railroad companies, as well as to the States in aid of education (6).

3) Period of conservation, reservation and development by the Federal Government:

This period was characterized by the reservation of national parks (7), the creation of forest reserves (8), the development of our power resources (9), and the reclamation and irrigation of the arid public lands (10).

4) Present period of multiple use for the common good:

The present era shows a continuation of the spirit of conservation and development begun in period three. There has been added thereto a belief that the common good demands that such conservation, development and use of the public domain be made as will provide the greatest good to the greatest number of our people. To obtain this optimum of use has meant generally that the use of our public resources must be shared by persons of varying needs and interests. The Stock Raising Homestead Act of 1916 (11), the Taylor Grazing Act of 1934 (12), the sale by Secretary of the Interior of small tracts under the Act of 1934 (13), and the leasing of small areas in the national forests for hotels, resorts and summer homes under the Act of 1915 (14), are all examples of the legislative concern to promote the highest use of federal lands.

This congressional desire to integrate and maximize the multiple uses of the public domain had its impact on the mining industry through the enactment of Public Laws 585 (15), 167 (16), 359 (17) and 76 (18).

These laws constitute the primary source material for our discussion, which is divided into two parts:

(1) A list of statutes which have particular significance for the hard-mineral industry, together with a brief comment on their particular significance on the acquisition or retention of mineral rights on the public domain; (2) a study of their effect on the law of discovery.

SUMMARY OF RECENT LEGISLATION OF GENERAL IMPORTANCE TO THE MINING INDUSTRY

1) Multiple mineral development of the Same Tract Act of 1954 (19):

Public Law 585, approved August 13, 1954, is commonly known as the Multiple Mineral Development of the Same Tract Act. It and its predecessor,
Public Law 250, of 1953, had their origin in the search for uranium and other fissionable source materials on the rugged Colorado plateau of Utah, New Mexico, Arizona and Colorado.

Here hundreds of miners had been urged by the Atomic Energy Commission to explore and prospect for uranium. Prospecting manuals were distributed to the miners, containing instructions for locating claims under the general mining laws. Bonuses were offered to encourage new discoveries, and information was supplied as to areas where prospecting would most likely succeed (20).

The trouble with these manuals and the instructions furnished to the prospectors, was that they made no mention of the legal difficulties that awaited. Mining claims had been located on lands subject to the Mineral Leasing Act of 1920. Such mining locations the Department of the Interior had for many years refused to permit under its regulations (21).

Congress came to the rescue of these miners and enacted Public Law 250 on August 12, 1953 (22). This act was a stop-gap measure. It validated mining claims located between August 1, 1939, and December 31, 1952, under certain procedures set up in the act.

In 1954 Public Law 585 was adopted as a permanent measure to resolve the conflict between the scope and operation of the general mining laws and the Mineral Leasing Act of 1920 in respect to the same tract of land (23).

The act received the support and endorsement of both the National Petroleum Council and the American Mining Congress (24).

Explanation of Act

The first three sections of the act provide for the validation of claims located between July 31, 1939, and February 10, 1954. Subsequent sections provide for the location of mining claims on lands subject to the Mineral Leasing Act of 1920. Conversely, mining claims located after the passage of the act are subject to entry and exploration for oil, gas and other minerals subject to the Leasing Act of 1920.*

The operator under the Mineral Leasing Act may protect his operation against unpatented mining claims located prior to the adoption of Public Law 585 by a quiet title action under Section Seven of the act.

*However patents thereto are subject to a reservation of such minerals to the United States Government only, if known to exist, or under lease, at the time the patent is issued (25).
Under Section Seven proceedings the locator of a prior unpatented mining claim must file a request to be heard or appear in any event at the hearing, or suffer the loss of his rights, if any, to the minerals therein, which are subject to the Mineral Leasing Act (26). The constitutionality of this provision has been questioned (27). Anyone contemplating to proceed or defend under a Section Seven hearing should read an excellent article on this subject by Mary Jane Due, 31 Rocky Mt. Rev. 269 (1959).

2) Multiple Use of the Surface Act 1955 (28).

Public Law 167 was approved July 23, 1955. It is an act to provide for the multiple use of the surface of the same tract of land. It was the second piece of important legislation passed within the past five years designed to provide the maximum public benefit from the use and management of our natural resources.

The background to this legislation is complex. It represents an honest effort to solve the conflict between the competing uses of the surface and the sub-surface of our public lands. For more than eighty years, since the passage of the Mining Act of 1872, the mineral areas of our public lands have been open to exploration and purchase upon the location and discovery of minerals.

Only since the Mineral Leasing Act of 1920 could certain nonmetallic minerals be acquired by lease from the Federal Government.

We have seen that the conflict between these two acts as to the use of the sub-surface was resolved by Public Law 585 (29).

However, the conflict between those desiring to extract the mineral resources from the public lands, and those who desired to have the Federal Government manage and conserve the surface resources such as: the soil, grass, timber and water; or to create and maintain areas for recreation, fish, wildlife and water fowl, for the benefit of all, has continued to grow and become more pressing each year.

The situation was complicated by many persons who abused the privilege of locating mining claims on the public domain by using their claims for the operation of stores, taverns; as recreational areas; and for other non-mining uses. Even though the locator satisfied the minimum requirements of the mining law, such uses were a fraud upon its original intent and purpose. Valuable timber was often claimed, and access to recreational, grazing and timber areas was frequently blocked. That this situation was real and one which should be corrected by legislation was recognized by both the mining and forestry industries (30).

Explanation of Act

Public Law 167 was adopted to cure these abuses and to provide for the multiple use of the surface resources. These objectives the law has accomplished by providing:
1) That the Secretary of Agriculture and the Secretary of the Interior, in respect to the federal lands under their direction, may sell and dispose of the surface resources, including such mineral resources as common varieties of sand, stone, gravel, pumice, pumicite, cinder and clay, and such vegetative materials as yucca, cactus, timber and other forest products (31).

2) The act also provides that henceforth no mining claim may be located by reason of a "discovery" of common varieties of sand, stone, gravel, pumice, pumicite or cinders. This does not, however, prevent the inclusion of such minerals within a mining location where such location was based upon the discovery of some other valuable mineral (32).

This section has no application to valid, existing mining locations made before the passage of the act on July 23, 1955 (33).

3) All unpatented mining claims located after the passage of the act are subject, prior to the issuance of a patent, to the following regulations:

   a) They shall be used only for legitimate mining purposes.

   b) They shall be subject to the right of the United States to manage and dispose of the vegetative and other surface resources not subject to the mining laws—but the locator is entitled to use such timber and other surface resources as are required in the legitimate prosecution of his mining activities.

Thus this section recognizes the dominant rights of the locator but strikes a balance between the competing surface and sub-surface uses (34).

The foregoing rights, limitations and reservations apply only to claims located after July 23, 1955, and then only until a patent has been obtained (35). After the patent has been issued, the patentee has, as under the law which has existed ever since the passage of the Act of 1872, an absolute title in fee to all its resources, both above and beneath the surface (36).

4) Section 5 of Public Law 167 provides a simple and expeditious procedure for the determination of the validity of mining claims located prior to the adoption of the act. The proceedings are similar in nature to those under Section 7 of Public Law 585 and subject to the same infirmities (37).

Here the procedure is initiated by the federal agency responsible for administering the public lands upon which the claim is located. For example, the Forest Service handles the procedure on all areas within the National Forests.

This procedure under Section 5 of P. L. 167 and Section 7 of 585 has caused the public and lawyers no little concern. In an Associated Press news release,
dated October 29, 1959, Wayne N. Aspinall, Representative from Colorado, met with the heads of the Departments of Agriculture and the Interior, in Washington, with respect to their future activities in this matter. Mr. Aspinall was assured that they contemplated no "wholesale proceedings to declare unpatented mining claims null and void."

It must be remembered that the government independently of these two sections has always had the authority to declare a mining claim null and void for lack of a valid discovery (38).

3) Mining Claims Rights Restoration Act of 1955 (39)

Public Law 359 or The Mining Claims Rights Restoration Act of 1955 is sometimes referred to as the Mineral Development of Lands Withdrawn for Power Act. It was approved August 11, 1955, and is found in Title 30 at §§ 621-625 of the United States Code Annotated.

This act was drafted and passed so as to permit the mining development and utilization of the mineral resources of all public lands, heretofore or hereafter withdrawn or reserved for power development.

Explanation of Act

The mining location is made under a "save harmless" clause operating for the benefit of the Federal Government whenever the lands are subsequently used for power purposes.

Section 2 of the Act provides four limitations on any mining entry:

1) All power rights to such lands are retained by the United States.

2) Certain lands in Oregon are given special treatment.

3) The Act does not apply to lands which are located in any project being constructed or operated under a license or permit granted under authority of any act of Congress, or under an uncanceled preliminary permit for examination or survey; and it

4) gives authority to the Secretary of the Interior to hold public hearings to determine whether placer mining operations would be detrimental to other uses of the land involved. Also, at his option, he can require operators of placer mining claims to restore the land to its original condition when the placer operations have ceased.

For the first time, to my knowledge, this act requires the owners of unpatented mining claims to file for record within one year, after the effective date of the act,
in the office of the United States district land office of the land district in which the claim is situated, a copy of a notice of location of any locations made prior to the effective date of the act. For all locations made after the effective date of the act such filing for record of the notice must be made within 60 days after the location. So likewise must a statement as to annual assessment work done or improvements made during the previous assessment year be filed for record within 60 days after the termination of such assessment year.

This would appear to be in addition to the recording required by the state statutes (40).

Heretofore no record of mining claims was kept by the Bureau of Land Management. The new provision is salutary and brings the mining locations to the knowledge of the Bureau as is now done with Leasing Act Minerals.

Section 5 of the Act provides for the protection of all valid existing claims located prior to the date of withdrawal or reservation. The act also applies to all claims made on public lands that may in the future be withdrawn or reserved for power-development purposes. It does not validate claims made between the dates of the withdrawal and the effective date of this act (41).

The act specifically prohibits the use of any facility or the conducting of any activity for any purpose other than for the location or patenting of mining claims for mining, development, removal and utilization of the mineral resources of such lands.

4) Exploration program for discovery of minerals (42)

Public Law 85-701, approved August 21, 1958, was designed to provide federal financial assistance in the exploration and discovery of additional mineral reserves, excluding organic fuels, within the United States, its Territories and possessions.

The program is similar in nature to the one administered by the Defense Minerals Exploration Administration which was terminated on June 30, 1958. The act recognizes that there is a continuing need to find new sources of minerals to meet the demands of our expanding economy and the needs of national defense. We must not permit ourselves to rely too heavily upon foreign sources for raw materials (43).

The small operator, individual, partnership, or corporation who is unable to obtain commercial funds on reasonable terms should be particularly interested in this act. The Code of Federal Regulations (44) indicates that the government is authorized to participate upon a fifty percent basis but is limited to $250,000 on any one contract (45). The contracts call for simple interest at 2% beyond the cost of obtaining funds by the loaning agency (46). Repayment by the operator of principal and interest is on a royalty basis measured by 5% of the gross proceeds from production (47). Hence if there is no production within the period of the contract there would be no liability of the operator to repay either principal or interest.
In a letter to the Honorable Sam Rayburn, the Secretary of the Interior, Fred A. Seaton, stated (48):

"If exploration financed in part by the Government under this proposed program, should result in a discovery, the amount of Government assistance, with interest, would be repaid in the form of a royalty on production. If there should be no discovery or production there would be no obligation on the part of the contractor to repay any portion of the amount of the funds made available by the Federal Government."

The Office of Mineral Exploration (O.M.E.) has been set up by the Department of the Interior to administer this law. The field office for Region 1, which includes Alaska, Idaho, Montana, Oregon and Washington, is located at South 157 Howard Street, Spokane 4, Washington.

Those applicants who have and are prepared to retain the possession of the land they wish to explore for a term equal to the life of contract are invited to write to the above office. Their inquiries will receive prompt and courteous treatment. However, those who wish merely to obtain funds to grubstake operations, to look for favorable grounds, or target areas are not eligible for assistance. Neither will funds be advanced to provide for the discovery of minerals of which vast reserves are known to exist in the United States, such as gypsum, phosphates, limestone, sand, gravel and potash (49). Otherwise the eligible minerals are numerous including even non-metallic minerals of strategic value such as asbestos, kyanite and mica (50).

5) Unpatented mineral claims—period for performing annual assessment work amended (51)

The period for doing annual assessment work on unpatented mining claims was altered by Public Law 85-736 to run from 12:00 noon September 1 of one year until September 1, noon, of the next succeeding year, effective in 1959.

The act also provides that the period commencing in 1957 for the performance of annual assessment work in that year shall end at noon July 1, 1958. And, that the period commencing in 1958 for the performance of such annual assessment work shall commence at noon July 1, 1958, and continue to September 1, 1959.

This act gives the mining claimant thirteen months in which to do the annual assessment work required in 1958-59.

6) Unpatented mining claims—labor assessment requirements amended (52)

Under the general mining law the owner of an unpatented mining claim was required to perform annually on each claim at least $100 worth of labor or improvements in order to maintain his possessory rights. Public Law 85-876, approved September 2,
1958, does not change the quantum of this requirement but it does, however, define "labor" so as to include geological, geochemical, and geophysical surveys conducted by qualified experts and verified by a detailed report filed in the county recorder's office wherein the claim is situated (53).

This amendment was long overdue. Modern exploratory methods were unknown when the mining laws of 1872 were enacted. The pick and shovel type of work contemplated by that law was inadequate to locate and develop mineral deposits deep within the earth (54).

It should be noted that the amendment refers only to "labor" as used in Section 28 of Title 30 U.S. Code. It does not alter the $500 worth of labor or improvements required for a patent (55) nor the requirements for discovery (56).

This amendment is of great importance for it represents a breakthrough in the antiquated laws governing the location, discovery and acquisition of title to mineral lands. There has been a strong movement over the past several years to alter our laws in respect to discovery, so as to include geophysical, geochemical, and geological methods in making a discovery (57).

EFFECT OF PUBLIC LAWS 585, 167 AND 85-876 ON THE LAW OF DISCOVERY

General discussion

The following three laws in the order of their approval have had a significant effect on the law of discovery:


2) The Multiple Use of the Same Tract Act of 1955 (59).

3) The 1958 Amendment to Section 28 of Title 30 of the United States Code, which redefines the term annual "labor" so as to include scientific methods of exploration (60).

It is true that none of these acts have, in terms, actually referred to or altered the basic law of discovery, as announced in 1872 with respect to lode or placer mining claims (61).

Their effect on discovery has been more subtle and indirect though just as persuasive. The search for uranium, on the Colorado plateau, in the late forties precipitated a new look at the old statutory requirements for discovery of minerals in place (62). It was evident that uranium and other fissionable materials, which lay at great depths did not yield themselves to discovery by the ordinary pick and shovel methods under which our basic mineral laws were written.
This need to reevaluate the old rules of discovery was declared, in 1956, by mining engineers and lawyers to be one of the most perplexing problems facing the hard-metals mining industry (63). Students of mining law also recognized the problem and called for legislative reform to meet the advances made in scientific exploration by geological, geophysical and geochemical means (64).

The quiet title proceedings under Section 7 of Public Law 585 (65) also took their toll of claims located without a sufficient discovery. These hearings usually centered around the validity of the mining claimant's acts in making a discovery and location of his claim (66).

A similar testing of the sufficiency of discovery was made under Section 5 of Public Law 167 relating to the multiple use of the surface. This section provided that any head of a federal department or agency which has the responsibility for administering the surface resources on any land belonging to the United States, may institute proceedings to test the validity of any unpatented mining claim located prior to the passage of the act on July 23, 1955 (67).

Mr. Abbott, Solicitor for the United States Department of the Interior, in a speech at Denver September 16, 1959, presented a table which indicated that as of July 1, 1959:

There were 35,543 unpatented mining claims found on lands administered by the Bureau of Land Management. Verified statements by 451 claimants had been filed asserting right to 2,369 claims. Of this number 36 petitions were denied. This was an enviable record for an administrative agency charged with the prosecution and determination of its own actions.

However, this table does not show the number of claims found on the national forests and contested under proceedings instituted by the Forest Service. Judging by conversations with lawyers and the number of cases reported, this number is large. This belief is verified by the Associated Press release of October 29, 1959, wherein Representative Wayne N. Aspinall of Colorado stated in substance that fears had been expressed that "the Departments might initiate wholesale proceedings to declare unpatented claims null and void." The Departments of Interior and Agriculture stated that there would be no "promiscuous" attacks on the validity of such claims.

Sufficiency of discovery to support the location of a valid mining claim

The right to locate a valid lode mining claim depends upon the discovery of a vein or lode within the limits of the claim (68). The general mining law makes no distinction as to the necessity of discovery, as a source of title, to either a lode or placer mining claim (69). The case law and the Federal regulations are in accord (70), but neither have given a precise definition of the term itself.

The truth is that in 1886, sixteen years after the general mining code of 1872 was enacted, a United States Circuit Court in Oregon was dismayed to find that the term had
not been judicially determined (71). That time does not appear to have entirely cor-
rected the situation is evidenced by a remark of Mr. Robert S. Palmer, Executive Vice-
President of the Colorado Mining Association, who stated in testimony before a Senate
committee, that "some of the leading law firms in Denver were unable to arrive at any
conclusive and clear-cut decision.... as to the meaning of discovery" (72). The Utah
Supreme Court in a 1958 decision said, "The language of the statute seems plain enough,
but as is the case with many general statements of law, difficulties are encountered in
applying it to specific circumstances" (73).

The difficulties appear to be inherent in the provisions of the mining code and
the purposes for which they were adopted.

Section 22 of the Code provides in substance that "All valuable mineral deposits
in lands belonging to the United States shall be free and open to exploration and pur-
chase, and the land in which they are found to occupation and purchase by citizens..."
(74). This section must be read in conjunction with Section 23, which declares, in
part: "... but no location of a mining claim shall be made until the discovery of the
vein or lode within the limits of the claim located" (75). Section 35 states that com-
parable acts are required to locate a placer claim (76).

Now, it is generally conceded that matter in a broad sense is divided into three
categories: 1) animal, 2) vegetable, and 3) mineral. However, if minerals were given
this broad interpretation much of the earth's surface and the interior would be subject to
a mining location. Consequently, the term has been construed to include metals and
other minerals of some actual or potential commercial value, and the requirement of
their discovery is usually referred to as the discovery of minerals in place (77).

The Code of Federal Regulations expresses "the purpose of discovery" in these
words: "... it is evidently to prevent the appropriation of presumed mineral ground
for speculative purposes, to the exclusion of bona fide prospectors before sufficient
work has been done to determine whether a vein or lode really exists" (78).

Two problems are thus presented, each dependent upon the other: (1) What
is mineral land? (2) What are the requisites of a valid discovery?

What is mineral land?

The early decisions appear to have been conservative in their determination of
mineral lands. Consequently they did not include all lands "in which minerals might
be found" but only those where the mineral was known to be in sufficient quantity to
add to their richness and to justify expenditures for their extraction (79).

Under the Mineral Classification Act for Montana and Idaho, February 26, 1895
(80) the criteria expressed by Congress for the determination of mineral lands were
more liberal. That Act provided that in making land classifications the Commissioners
should take into consideration "the mineral discovered or developed on or adjacent to
such land, and the geological formation of all lands to be examined and classified, as
well as the lands adjacent thereto, and the reasonable probabilities of such lands containing valuable mineral deposits because of its said formation, location or character. " It did not require that the land be "known" to contain minerals of such extent and value as to justify their extraction.

It would seem that the congressional intent was to provide for technological advances in the use of classification standards. That all scientific evidence should be used and considered, in support of a classification of lands as mineral in character, seems evident. This view has been approved by the Federal District Courts of California (81), as well as in Ambergis Mining Co. v. Day, 12 Idaho 108, 85 Pac. 109 (1906).

Judge Yankwich in the California District Court decision made these observations:

"While no claim could be made by a person to lands, without discovery, lands could be declared by the Land Department to be known mineral, although there had been no discovery, or actual production ...Land competent, relevant evidence, and any deduction by men skilled in the field based upon observable or deductible facts or indicia upon the land or in its vicinity or upon deductions from the geological formation of the area, disclosures or other surrounding or external circumstances could be relied upon. Actual exposure of the mineral was not essential or even necessary."

Although there exists this fundamental distinction between a determination of "mineral lands" and a "discovery" thereon, it is believed that those who insist that the same rules of inference and deduction from scientific data should be extended to discovery are on solid footing.

What is discovery?

Discovery is relevant not only in determining whether a valid claim has been located but also to qualify a claim for patent, whether it be a lode (82) or a placer (83).

The Department of the Interior is charged with the disposition of all public lands and may contest a discovery before granting patents (84). Jurisdiction over possessory rights to unpatented mining claims is shared by both the federal and state courts (85).

A different rule of discovery is applied where a patent is sought than where possessory rights as between two mining locations are to be determined (86).

This variation between the rules as to the sufficiency of discovery was explained in Chrisman v. Miller (87) in these words:

"It is true that when the controversy is between two mineral claimants the rule respecting the sufficiency of minerals is more liberal than when
it is between a mineral claimant and one seeking to make an agricultural entry, for the reason that where the land is sought to be taken out of the category of agricultural lands the evidence of its mineral character should be reasonably clear, while in respect to mineral lands, in a controversy between claimants, the question is simply which is entitled to the priority."

Despite this diversity of application two main lines of decisions have appeared to determine the sufficiency of discovery. The majority of the decisions appear to follow the rule laid down in Castle v. Womble (88) in these words:

"It is my opinion that where minerals have been found and the evidence is of such character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success in developing a valuable mine, the requirements of the statute have been met."

The Commissioner went on to explain that to hold otherwise would nullify the provision of the law making mineral lands free and open to exploration.

"For as soon as minerals are shown to exist at any time during exploration and before the returns become remunerative, if the lands are to be subject to other disposition, few would be willing to risk their time and capital... in an effort to make available the mineral wealth of this country as Congress obviously intended."

This statement has been followed by most federal and state courts (89).

The case law on the elements of a valid discovery is neither concise nor uniform. The great majority of courts have held that a valid discovery is made when mineral is found in such quantity and of such quality that a person of ordinary prudence would be justified in the further expenditure of his labor and money with a reasonable prospect of developing a paying mine (90). These decisions hold that there must be an actual discovery of a mineralized vein or lode within the limits of the claim (91). Morrison, in his book on Mining Law stated (92) "The vein must be reached. The discovery is not complete until the vein is exposed."

In Book v. Justice Mining Co. (93) it was held that:

"When the locator finds rock in place containing mineral, he has made a discovery within the meaning of the statute, whether the rock is rich or poor, whether it assays high or low. It is the finding of the mineral in the rock in place, as distinguished from float rock, that constitutes the discovery and warrants the prospector in making a mining claim."

Lindley also approves this doctrine (94).
This view of discovery has been followed in cases involving conflicts between mining claims and other non-mineral entries. That is if a valid discovery has been made, such lands are disposable only under the mining laws despite the fact that they may have greater value for agriculture or other purposes (95).

A mining claim will not be invalidated because it was made upon land containing a valuable stand of timber within a forest reserve. Neither is claimant required to prove that it was more valuable for minerals than for its timber resources (96). Likewise a mill site located under the mining laws was sustained against the contention that the land was more valuable for recreational purposes (97).

It seems that only in respect to saline minerals and building stone have the statutes required that the locator show that the discovery of a mineral deposit is more valuable as such than the timber on the land or for other uses to which it may be put (98).

According to Mr. Bradshaw (99) who cited specifically U.S. v. Dawson (100) which was a contest as to the validity of a pumice placer claim, there are three tests of discovery applicable to lode claims:

"must be shown that the land is more valuable for the purpose of removing and marketing the substance than for any other purpose, or that the removal and marketing will probably yield a profit, or that such substance exists in the land in such quantity as to justify a prudent man in expending labor and capital in the effort to obtain it."

The rules cited by the Dawson case are taken from 1 Lindley on Mines § 98 (3d ed. 1914). Dawson then states that in respect to pumice, sand, gravel and other common minerals, "that proof of the actual (rather than the potential) value of the particular deposit is necessary since without a convenient market the deposits could not be produced at a profit no matter how extensive they might be."

This distinction as to the meaning of discovery when applied to a lode claim as distinguished from a placer claim, or of singling out one mineral from another is not found in the Code. The basis of the distinction, if any, must be based on the fact that the Department of the Interior is charged with the administration of the mining laws on the public domain. That "valuable minerals" as found in Section 22 of the Title 30 of the Code must be defined by the Department. Hence its finding that a mineral of wide occurrence is not "valuable" unless there is also a present market for its sale at a profit is a finding of fact which the courts are not ordinarily at liberty to disregard (101).

The case (271 F. 2d 836 D.C.C. 1959) of Foster v. Fred A. Seaton, Secretary of the Interior, handed down October 22, 1959 is the most recent decision, to my knowledge, on this subject. Here the Circuit Court of the District of Columbia stated:
"The statute says simply that the mineral deposit must be 'valuable' (Rev. Stat. § 2319, 30 U.S.C.A. § 227). Where the mineral in question is of limited occurrence, the Department, with judicial approval, has long adhered to the definition of value laid down in Castle v. Womble, 19 I.D. 455 (1894)..."

"Where minerals have been found and the evidence is of such character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine, the requirements of the statute have been met."

"With respect to widespread nonmetallic minerals such as sand and gravel, however, the Department has stressed the additional requirement of present marketability in order to prevent the misappropriation of lands containing these minerals by persons seeking to acquire such lands for purposes other than mining. Thus, such a mineral locator or applicant, to justify his possession must show that by reason of acceptability, bona fides, in development, proximity to market, existence of present demand, and other factors, the deposit is of such value that it can be mined, removed and disposed of at a profit (102)."

This point of view and that expressed in Book v. Justice Mining Co. (103) are poles apart. So also are the times and periods in which the two cases were decided. Today such common varieties as sand, gravel, stone, pumice or cinders are removed from the list of locatable minerals by Public Law 167 (104) although of course if found within a mining claim, otherwise validly located, they would become the property of the locator (105).

Based upon the foregoing studies, it is my considered judgment that mining locations made before July 23, 1955, based upon a discovery of the above enumerated minerals will be declared invalid under the quiet title procedures provided under Section 7 of Public Lands 585 (106) and Section 5 of Public Law 167 (107) unless the special facts surrounding their discovery and location meet the test of marketability as set forth in the Ellis case. Whether or not the general requirements of discovery as announced in Castle v. Womble will be followed is discussed in the next succeeding section.

Effect of technological advances in geology upon the law of discovery

Let us now return to the second group of decisions, which hold a more liberal view on the requirements necessary to effect a valid discovery. Here our study will be directed to what indications of minerals, whether based upon one's individual experiences and observation or upon geological and other scientific methods, will suffice to establish a valid discovery.

In this area of the law the Idaho courts and judges have taken a distinguished and leading part.
In Burke v. McDonald (108), the Idaho Supreme Court held that a valid discovery had been made when a locator "finds rock, clay or earth, in place, and so colored, stained, changed and decomposed by the mineral elements as to mark and distinguish it from the inclosing country." Cases of similar or like import may be found in Montana (109) and Wyoming (110).

In Alaska, a comparable rule has been laid down in respect to placer claims where the overburden is so deep that the only indications of the presence of minerals are the colors and gangue which lie on the surface (111).

These cases appear to have had their origin in an interpretation of the word "lode" as meaning a formation by which a miner "could be led or guided." It is an alteration of the verb "lead," and whatever a miner could follow, expecting to find ore, was his lode (112).

Perhaps the best summary of the liberal point of view is found in Ambergris Mining Co. v. Day (113). Here Judge Alshire summarized the law on what "indications" the law would treat as substantive evidence in the discovery of minerals. The judge also spoke of the effect to be given to specific geological conditions and formations which have become recognized and associated with certain minerals found in the area in the discovery of minerals on contiguous ground in these words (114):

"If a miner has discovered certain mineral indications which he has followed up with the result that a rich and valuable ore body has been developed therefrom, it seems clear that another miner finding similar indications and convictions on contiguous ground or in the immediate vicinity would be in a measure justified in following up these evidences with a reasonable expectation of finding mineral deposits. And this is true even though the indications, rocks and deposits found are such as the expert, scientist, geologist or mineralogist in their finest theories tell him are not evidence of mineral deposits or even that they are evidences of the entire absence of minerals.

"As a matter of fact and greatly to their credit, those scholars who have added so largely to the store of knowledge have been observant and progressive enough to, from time to time, revise and modify their views and theories to keep pace with the actual demonstrations of the man who risks his judgment and delves into the earth at uninviting and unseemly places. The miner, as well as the man engaged in any other occupation or business is entitled to act on experience and observation, and while he may not, and indeed will not, always attain the same results, the exception to the rule does not preclude him from availing of his own observations and those of his fellows as well as demonstrated existing conditions."

The court cited Shoshone Mining Co. v. Rutter (115) written by Judge Hawley, another Idaho judge, in support of his decision.
This liberal view of discovery lay dormant for many years. Then in 1954 the Director of the Bureau of Land Management, Edward Woozley, an Idahoan, adopted and extended its provisions to cover two mining cases originating in the Coeur d'Alene area (116).

In both cases the sufficiency of the discovery was questioned. An engineer for the government testified that "there was no evidence of valuable minerals, prospective or otherwise, on the claims which would justify their development." The defendants rested their case upon the belief of several engineers and geologists who testified that although the actual showing of minerals was meager, yet based upon their general knowledge of the area, the locator was justified in expending his time and efforts in seeking to locate ore bodies at great depths beneath the surface.

The hearing examiner held that there was not sufficient evidence to support a valid discovery. Upon appeal the Director reversed and held that the discovery was sufficient. The following paragraph is worth repeating because it clearly expresses the crux of the problem in relating the law of discovery to its practical application in the world of reality (117):

"It is my belief that the major intent of the mining law is to encourage the development of minerals, not to hinder that development. In an area where pay ore is ordinarily found only at great depths, it is obvious that even the most enterprising miner must have more than ordinary faith and courage since he must stake his time and money on following evidence of possible mineral which to many would seem no more than mere will o' wisp. Unless the enterprise of such as these is recognized many valuable deposits are doomed to remain dormant in the depths of the earth of no value to anyone. This is not consistent with the great present day need for the development of minerals in the interest of the national defense and the public welfare. Nor is it, I am persuaded, consistent with the intent of the law.

"Considering the large expenditures of money and evidencing the good faith of the contestee, the similarity of the showings, here to those which have led to the development of valuable mines and the departmental decisions, supra, holding, in effect, that in that locality, a meager showing of minerals has often led to commercial ore, the showing as to discovery in this case is accepted."

State courts in Colorado (118), Wyoming (119), Utah (120) and Nevada (121) have wrestled with the same problems, in respect to the discovery of uranium ore deposits. Their problems were also complicated by the scientific advances made in exploration by means of geophysical, geochemical, geological and geobotanical techniques.

These courts are divided in their degree of liberality. Wyoming and the Colorado court (in the latter's first decision) on this subject, were relatively conservative in their application of scientific evidence to the law of discovery (122).
Consequently, they would not accept radiometric readings as substantive proof of the presence of minerals unless also supported by an actual chemical analysis or assay of a sample from the vein or rock found in place on the claim. This was a step backward, for even the old conservative view of discovery did not require a chemical analysis or assay to support discovery (123).

The courts of Utah, Nevada and Colorado (in its second decision) expressed a liberal view toward the requirements of a valid discovery and cited the Amhergris, McDonald and Justice cases in support of their views (124). These courts took a sensible, down-to-earth view of the entire situation. They realized, as heretofore stated by the Director of the Bureau of Land Management (125) that the "major intent" of the mining law is to encourage the development of mineral resources. Hence scientific information, geology of the area, and the good faith of the contestants in expending large sums of money should be all considered in assaying their judgment as to whether or not they were justified in continuing their endeavors to locate minerals which were often times found only at great depths.

Even though one concedes that each of these decisions involved only rival claimants to the same tract of land, and that under such circumstances the courts are more liberal in their interpretations of the requirements of discovery (126), still the fact remains that they were making an honest attempt to make our mining laws function under modern conditions. There is every reason to believe that other courts will follow their decisions.

Pedis possessio

The problem of discovery is complicated by the fact that most states require the locator to dig a discovery shaft within some sixty to ninety days of the discovery. This shaft must expose the vein or rock (127). This of course is impossible with respect to mineral deposits which often lie far underground. Nevada amended its statute with respect to digging a discovery shaft by providing that the locator could drill a hole into the earth's surface to such depths as would be required to expose minerals in place (128).

This statute was involved in a recent New Mexico case (129). In that decision the plaintiff entered first and staked out a mining location, and did all acts necessary to perfect a claim within ninety days of the discovery as required by state statute, except digging the discovery shaft (130).

Subsequently the plaintiff discontinued his actual occupation of the land. The defendant thereafter entered peacefully and without force in 1957 and began exploratory work leading to the location of a mining claim.

The plaintiff then forcibly returned; brought his drilling equipment upon the property against the will and consent of the defendant. Both men ultimately drilled and exposed minerals at a depth of about 2500 feet. The plaintiff was the first to succeed in reaching the minerals.
The lower court held for the plaintiff. Upon appeal, the Supreme Court reversed, holding that the defendant was entitled to the claim under the doctrine of pedis possessio.

The court did not pass upon the sufficiency of the discovery made by the plaintiff but limited its decision to the doctrine of pedis possessio which has been defined by Costigan as follows (131):

"Pedis possessio means actual possession, and pending a discovery by anybody the actual possession of the prior arrival will be protected to the extent needed to give him room for work and to prevent probable breaches of the peace."

This doctrine recognizes the prospector as an invitee and not as a trespasser on the public domain. As such, he is entitled to mark off and reserve to himself a mining claim, in which to explore for minerals. This he may do, so long as, "he is diligently and persistently conducting his operations in good faith with the intent to make a discovery of minerals" (132). Under such circumstances he is entitled to protection as "against" forcible, fraudulent and clandestine intrusions upon his possessions (133).

This is a reasonable and liberal doctrine. It again illustrates the power and ingenuity of the courts to implement the application of statutes to the needs and necessities of society.

Many suggestions have been made for the revision and adaptation of the mining laws of 1872 to our present-day needs. Some have suggested that a leasing arrangement be made similar to the Leasing Act of 1920. Others suggest that the present law be altered to require the filing of mining locations with the Bureau of Land Management; increase the amount of assessment work; substitute for the usual 10-foot discovery shaft a right to core drill until a discovery is made; and exclude extralateral rights (134).

For myself, I believe that inevitably we will turn to a system of federal mining leases, perhaps somewhat comparable to the Mineral Leasing Act of 1920. This would permit the multiple use of the public domain to be worked out in an orderly and systematic manner. In Idaho a system of exploration and discovery for a period of two years followed by a lease based upon royalty payments has proven successful, on state lands. It is of particular interest to us that the prospector may post a notice of his discovery or of his intention to prospect for minerals on each 20-acre claim he desires to locate (135).

Comparable state systems are found in Oregon (136), Montana (137) and Washington (138). All are worthy of study and adaptation to the federal domain.

In the meantime, let each of us continue to do all that we can to amend the mining laws of the United States so that they will not only conform to the rapid strides of science in the fields of exploration and discovery but will also encourage the conservation, use and development of our natural resources in the best interest of all the people.
FOOTNOTES


2. Payne, Examination of Mining Claims and Compliance with Law, Address at Rocky Mt. Mineral Law Institute, Salt Lake City, Utah, August 1, 1959.


6. Donaldson, Public Domain, Ch. 27, Homesteads at 330; Ch. 26, Mines on the Public Domain at 306; Ch. 20, Railroad Land Grants at 261, and Educational Land Grants, Ch. 13 at 223 (1884).


8. 16 U.S.C.A. §§ 471-525 (1954), Forest reserves were authorized.


33. Id.
35. Id. at 2483.
36. Id. at 2483.
37. Supra note 24.
40. Idaho Code §§ 47-604 (Notice of location must be filed within 90 days in office of county recorder or in office of deputy recorder of the mining district.) § 47-605 (Records of additional certificate to correct erroneous procedures) and § 47-606 (Affidavit of performance of labor to be recorded with county recorder).


44. 30 C.F.R. §§ 301.0-301.15 (1958).

45. Id. Reg. §§ 301.9, 301.13.

46. Id. Reg. § 301.12.

47. Id. Reg. § 301.11.


50. Handbook, Minerals Exploration Program O.M.E. Dept. of Interior. (No publication date).


57. Waldeck, Developments in Mineral Discovery Requirements, 31 Rocky Mt. L. Rev. 33 (1959); Validity of Geological and Geophysical Methods of Discovery, 30 Rocky Mt. L. Rev. 172 (1958); Note, Problems of Discovery in an Atomic Age, 30 Rocky Mt. L. Rev. 228 (1958); Martz, Pick and Shovel Mining Laws, 27 Rocky Mt. L. Rev. 375 (1955); Green, Impact of the Uranium Boom on Mining Law, 4 Utah L. Rev. 739 (1954).

61. 30 U.S.C.A. § 35 (1954) (placer claims shall be subject to entry and patent, under like circumstances and conditions, and upon similar proceedings as are provided for vein or lode claims).
64. Supra note 53.
71. United States v. Reed, 28 Fed. 482 (1886).
72. Hearings before Committee on Interior and Insular Affairs on Senate Bill 3344, 83d Cong. 2d Sess. 70 (1954).
78. 43 C.F.R. § 185.12 (1958).
79. Davis v. Weybold, 139 U.S. 507 (1891) (an appeal from a decision of the Montana Supreme Court finding a mining claim to be valid and superior to a subsequent townsite location).
83. 30 U.S.C.A. § 37, 43 C.F.R. § 185.69 (are similar to proceedings to obtain a lode claim).
85. Shoshone Mining Co. v. Rutter, 177 U.S. 505 (1900).
87. 107 U.S. 313, 323 (1904).
88. 19 L.D. 455 (1894).
89. Chrisman v. Miller, 197 U.S. 313 (1904).
90. Chrisman v. Miller, 197 U.S. 313 (1904); Castle v. Womble, 19 L.E. 455 (1894).
92. Morrison, Mining Rights 26 (1936).
95. Bradshaw, Memorandum of Authorities on the Rule as to What Constitutes a Valid Discovery of Minerals Sufficient to Support a Mining Location, Department of Interior, January 25, 1956. Mr. Bradshaw cites many cases including Aspen Consolidated Mining Co. v. Williams, 23 L.D. 34 (1896); U.S. v. Bunker Hill Mining and Concentrating Co., 48 L.D. 598 (1922).
100. 58 I.D. 670 (1944).
101. Ickes v. Underwood, 141 F. 2d 546, certiorari denied. 323 U.S. 713 (1944). (This case involved a series of gravel placer claims located on land homesteaded under the 640-acre stock-raising act of 1916. The government needed the land for the construction of Grand Coulee Dam.)
108. Burke v. McDonald, 2 Idaho 679, 29 Pac. 98 (1892).


111. 2 Lindley Mines § 336 (3d ed. 1914).


114. Id. at 114, 115.

115. 87 Fed. 807, 31 C.C.A. 223 (1898).

116. U.S. v. Merger Mines Corp., Coeur d'Alene, #013942, Contest No. 977 (1954); U.S. v. A.A.M. Arnold et al., Coeur d'Alene, #013984, Contest No. 978 (1954). (Mr. Wooley was formerly Commissioner of the Idaho State Land Board).


122. Supra notes 112, 113.


124. Supra notes 103, 108.

125. Supra note 110.

126. Supra note 117.

130. Id. at 311
131. Costigan, Mining Laws, 156 (1908).
138. Wash. Rev. Code §§ 78.08.010 - 78.08.130 (1952).