The General Mining Act of 1872

Loren Mall

Follow this and additional works at: https://scholar.law.colorado.edu/federal-lands-laws-policies-and-development-of-natural-resources

Part of the Administrative Law Commons, Constitutional Law Commons, Environmental Law Commons, Environmental Policy Commons, Geology Commons, Legislation Commons, Litigation Commons, Mining Engineering Commons, Natural Resources and Conservation Commons, Natural Resources Law Commons, Natural Resources Management and Policy Commons, Oil, Gas, and Energy Commons, Oil, Gas, and Mineral Law Commons, Property Law and Real Estate Commons, Water Law Commons, and the Water Resource Management Commons

Citation Information
https://scholar.law.colorado.edu/federal-lands-laws-policies-and-development-of-natural-resources/11

Reproduced with permission of the Getches-Wilkinson Center for Natural Resources, Energy, and the Environment (formerly the Natural Resources Law Center) at the University of Colorado Law School.

Reproduced with permission of the Getches-Wilkinson Center for Natural Resources, Energy, and the Environment (formerly the Natural Resources Law Center) at the University of Colorado Law School.
OUTLINE

THE GENERAL MINING ACT OF 1872

BY

LOREN MALL
ROATH & BREGA
DENVER, COLORADO

FEDERAL LANDS, LAWS AND
POLICIES AND THE DEVELOPMENT
OF NATURAL RESOURCES

THE UNIVERSITY OF COLORADO SCHOOL OF LAW
The purpose of the Mining Laws of 1872 was to encourage mineral development in order to settle the West and establish the industrial base of the East.

A. After the Louisiana Purchase in 1803 and before the Civil War, explorers, trappers and miners roamed freely over the unsettled public domain. Where surface deposits of precious metals were found, miners took as many nuggets as they could carry.

1. They were trespassers on land owned by the United States for the benefit of the nation because they were there without governmental authority taking property of the nation.

2. Nevertheless, the miners were more concerned about hostile Indians and claim-jumping rivals than of prosecution by the U.S. government.

3. With news of the discovery of gold in California at Sutter's Mill in 1848, the gold rush of 1849 was on. Thousands of adventurers from the East and all over the world flooded into California.

4. Congress debated adoption of a federal mining law, starting in 1848, but could not agree whether to license small mineral tracts, reserving a royalty, to sell small tracts outright for cash, or to grant rights of free use in order to encourage mineral development.

B. In order to establish order and to protect their diggings, the miners organized mining districts and adopted regulations to govern mining claims.

1. The mining district regulations governed requirements for making claim to minerals, notice, the size and markings of claims, the amount of work required to hold possession, and extralateral rights. Sometimes the mining districts conducted civil and criminal trials.

2. The mining district regulations were based on concepts of equity, the rule of priority, and the practical needs of miners.
C. With the Civil War causing a desperate need for revenue, Congress finally passed a federal mining law in 1866, granting miners rights of free access to minerals on the public lands.

1. The federal mining law was not intended to produce revenue directly, but through its economic spinoff, to enhance the value of federal land and to promote industrial production in the East.

2. The federal mining law adopted the location system established by the mining districts. The first mining law was the Lode Law of 1866 confirming the right to locate claims on lodes. Lodes or veins are mineral-bearing rock in place between country rock with reasonably distinct boundaries on either side.

3. Since the Lode Law of 1866 did not authorize the patenting of placer claims, Congress passed the Placer Act of 1870 to extend the location system to placers. Placers are any mineral deposits which are not lodes or veins of mineral in place between reasonably distinct boundaries on either side.

4. Finally, Congress codified and expanded the Lode Law of 1866 and the Placer Act of 1870 into the Mining Law of 1872.

5. The 1872 Mining Law, embellished by a host of judicial opinions, statutory exceptions, administrative regulations and decisions, and supplemented by state law, is the present location system.

(a) The location system is the chief means today for acquiring mining rights in the public lands.

(b) The leasing system established by the Mineral Leasing Act of 1920 is the major alternative. It provides an entirely different method for acquiring what can be called the fuel and fertilizer minerals. These leaseable minerals are oil, gas, coal, potassium, sodium, phosphate, oil shale, native asphalt, solid and semisolid bitumen and bituminous rock, including oil impregnated rock or sands, and sulphur in Louisiana and New Mexico.
A third system is provided by the Materials Act of 1947, 30 U.S.C.A. §§ 601-604. The Materials Act provides that nonmetallic minerals of widespread occurrence, such as sand and gravel, peat moss, and others, are to be sold or granted under free-use permits.

6. The essence of the location system is the right of self-initiation. Unless mineral entry has been restricted, the prospector may enter the public domain at will, where he chooses, to search for minerals.

(a) Simply put, the mining law provides that the first locator who discovers a valuable mineral deposit and diligently pursues the find is protected against rivals, and is entitled to remove all minerals discovered even though the locator does not elect to purchase title in fee simple from the United States.

(b) It is the myriad refinements of these basic principals which constitute the mineral location system.

II. All valuable minerals are subject to location except those which have been specifically removed from the location system by Congress.

A. The Mining Law of 1872 expressly allows the location of mining claims upon "veins or lodes of quartz or other rock in place bearing gold, silver, cinnabar [mercury], lead, tin, copper or other valuable deposits." 30 U.S.C.A. § 23.

1. Note that the act expressly names only certain metals as locatable. However, diamonds were held locatable in 1872 as "valuable mineral deposits." 14 Atty. Gen. 115 (1872). After that, it was settled that nonmetalliferous minerals were locatable along with metalliferous minerals.

2. The Commissioner of the General Land Office held in 1872 that whatever is recognized as a mineral by the standard authorities is a valuable mineral deposit under the 1872 Act. Copp, Mineral Lands 50 (2d ed. 1882).
3. Chemical composition and crystalline structure are the principal distinguishing characteristics of minerals. While sand and gravel do not have definite chemical composition and crystalline structure, still, they are locatable if they are uncommon varieties.

4. Proof of mineral character, even for sand and gravel, is established if it is treated as a mineral in trade or commerce or has special or peculiar value in trade, commerce, manufacture, science or the arts. Stanislaus Electric Power Co., 41 L.D. 655 (1912).

5. Stone useful as building material and salt deposits were held to be valuable mineral deposits and thus locatable. Congress adopted these interpretations by the Building Stone Act of 1892, 30 U.S.C. § 161 and the Saline Placer Act of 1901, 29 Stat. 526 [repealed by the Mineral Leasing Act of 1920].

6. Ordinary deposits of clay and limestone were never held locatable even though they could be marketed at a profit. Holman v. Utah, 41 L.D. 314 (1912). Other decisions established that such minerals as decomposed rhyolite, blow sand, peat moss, and sand and gravel suitable only as fill material or other ordinary uses were not locatable. In fact, the Materials Act of 1947 was enacted to allow the disposal of such minerals and vegetative materials, including yucca and timber, by sale or free use permit to local municipalities. The Common Varieties Act of 1955, 30 U.S.C. § 611, amended the Materials Act of 1947 to legislatively prohibit any further location of sand, stone, gravel, pumice, pumicite, cinders, clay and other nonmetallic minerals of widespread occurrence, leaving them disposable only under the 1947 Act. The Common Varieties Act means that building stone must be an uncommon variety to remain locatable under the Building Stone Act.

7. Other mineral substances expressly held to be excluded from location before the Mineral Leasing Act of 1920 were fossils, meteorites, and crystalline deposits in caverns. The Act of September 28, 1962, 76 Stat. 652, removed petrified wood from the class of locatable minerals.
8. Petroleum was originally subject to the mining law and locatable through mining claims. Union Oil Co., 25 L.D. 351 (1897). The Oil Placer Act of 1897, 29 Stat. 526, confirmed this decision, making both oil and gas locatable. Oil shale was thus originally locatable under both the Oil Placer Act and the mining law.


10. Some mineral substances now subject to location were not known or considered valuable for many years after the mining laws were enacted. Other unknown or unrecognized minerals may yet become valuable mineral deposits and thus become subject to location.

11. Water was held not locatable in 1978 on the basis that the substance located must not only be a valuable mineral within the ordinary meaning but must also be the type of valuable mineral that the 1872 Congress intended to make the basis of a mining claim. Andrus v. Charlestone Stone Products Co., 436 U.S. 604 (1978).

12. 43 C.F.R. § 3812.1 summarizes the situation: "Whatever is recognized as a mineral by the standard authorities, whether metallic or other substance, when found in quantity and quality sufficient to render the lands valuable on account thereof, is treated as coming within the purview of the Mining laws." "... A 'mineral' is a substance that (1) is recognized as mineral, according to its chemical composition, by the 'standard authorities on the subject,' or (2) is classified as mineral product in trade or commerce; or (3) possesses economic value for use in trade, manufacture, the sciences, or in the mechanical or ornamental arts." 43 C.F.R. § 2710.0-5e.

III. The United States reserved minerals from many agricultural homesteads in the West, and those minerals are subject to location of mining claims and leases by the United States.
A. During the disposal of the public domain from 1800 to 1900, much mineral wealth of the country passed into private lands, free of charge.

1. The lands sold, and those granted under the preemption and homestead acts, as well as the state and railroad grants, were not to include mineral lands, but only agricultural lands. The settlement acts excluded known mineral lands.

2. Conversely, the mining laws were the only legislative authority for acquiring mineral lands.

3. Unfortunately, there were no adequate scientific means of classifying land as agricultural or mineral, so the settlement acts were applied to all lands from the Atlantic in the East to the Rocky Mountains in the West.

B. Around 1900, the conservationists objected to further patenting of mineral lands under agricultural laws, especially to lands where coal deposits were visible along the surface and lands where oil seeped to the surface of water bodies. This prompted President Roosevelt to withdraw much of the public domain from further settlement for a better identification of coal and oil lands and for a better method of preventing their agricultural settlement.

1. Roosevelt first withdrew suspected coal lands from operation of the settlement acts. To reopen the westward flow of people and trade, Congress adopted the Coal Lands Acts of 1909 and 1910, 30 U.S.C. §§ 81, 85. These acts allowed agricultural entries and disposals, but reserved the coal to the U.S. for later disposition.

2. By 1909, to save oil lands, Roosevelt and Taft had withdrawn most of the remaining public domain from all forms of entry. Congress stewed but passed the Pickett Act of 1910, 36 Stat. 847 [repealed], opening the lands to location of claims for metalliferous minerals, but leaving them closed to oil entries and agricultural entries.

3. Congress then passed the Agricultural Entry Act of 1914, 39 U.S.C. § 121, to reopen the public domain to agricultural entries. The 1914 Act reserved deposits of phosphate, nitrate, potash, oil, gas
4. In the arid West, large stock raising ranches were necessary; 160-acre farms could not succeed on the dry or mountainous lands. So, Congress enlarged the original 160-acre homestead to 640 acres by the Stockraising Homestead Act of 1916, 43 U.S.C. § 291 [repealed]. It authorized settlement on lands chiefly valuable for grazing and crops. It reserved all minerals to the U.S.

5. The oil lands remained open only to metalliferous mineral entry after the Pickett Act of 1910, 36 Stat. 874 [repealed]. The 1914 Agricultural Entry Act opened these lands only to agricultural entries while Congress argued. Finally, the deadlock was broken in favor of leasing oil, and the Mineral Leasing Act of 1920 was enacted. By it, an entirely different system for disposal of oil, gas and fertilizer minerals was established.

(a) The leasing system applies to the leasing minerals which were federally reserved and to leasing minerals on the public lands.

(b) The Mineral Leasing Act of 1920 therefore had the effect of legislatively withdrawing from mineral location all oil, gas and fertilizer lands of the U.S. and subjecting them to leasing.

(c) The Mineral Leasing Act provided for the sole means of acquiring coal reserved under the Coal Lands Act of 1909 and 1910 and of acquiring the fuel and fertilizer minerals reserved under the Agricultural Entry Act of 1914, and leaseable minerals reserved under the Stockraising Homestead Act of 1916.

(d) The only federally reserved minerals which are locatable are the non-leasing minerals under stockraising homesteads. The Stockraising Homestead Act gives prospectors the right to enter to prospect for locatable minerals and to locate mining claims. Thereafter, to reenter, the location must have the landowner's consent, or agree to pay damages, or file a bond with the BLM to assure such payment.
6. Altogether, some 63,000,000 acres were patented into private ownership subject to reservations of some minerals, or all minerals, to the U.S. Most of these reservations were made under the Stock-raising Homestead Act which reserved all minerals to the U.S. for the benefit of the public. BLM, Public Land Statistics (1977). These severed estates have proved to be troublesome; the ranchers who knew the limited estate they were homesteading now want to deny that the U.S. has the right to allow mineral development under their land even if the surface is restored. To gain their cooperation so mining claims can be located, most mineral operators give ranchers a royalty on the minerals which the ranchers clearly do not own. Likewise, the U.S. has legislated that consent of the rancher must be obtained before the public coal owned by the U.S. underlying private surface lands can be leased. Surface Mining Control & Reclamation Act of 1977, 30 U.S.C.A. §§ 1201-1328, § 1304. The price of such consent is usually payment. The provisions of § 1272 of SMCRA precluding private owners or lessees of coal from extracting them without surface owner consent have been held unconstitutional as a taking of property without the compensation required by the 5th Amendment. Virginia Surface Mining & Reclamation Ass'n v. Andrus, 483 F. Supp. 425 (W.D. Va. 1980), ruling stayed pending action on appeal, 100 Sup. Ct. 1306.

C. By 1934, many families of stockraising homesteaders had gone broke on 640-acre ranches. The range cattle industry, which had grown up on the open range where free grazing was allowed, had suffered the loss of those free grazing lands to homesteaders, and overgrazing and soil erosion became serious problems. For these reasons, both sides, namely the western cattlemen and the eastern conservationists sought an end to homesteading.

1. The result was the Taylor Grazing Act which established grazing districts of the remaining public domain to regulate and restore those grazing lands. The Taylor Act also precluded further settlement entries unless the land was thereafter classified as suitable for some settlement entry.
2. Since the administration quickly withdrew all the remaining public domain, except Alaska, from settlement entries, the Taylor Grazing Act of 1934 had the practical effect of repealing the homestead acts. FLPMA formally repealed the homestead acts in 1976 and dictated an end to Alaska homesteading as of 1986.

3. Sections 5 and 6 of the Taylor Grazing Act are still in effect. They still provide that the rights of the miner under applicable laws to enter, prospect, locate, develop, mine, lease, or patent mineral deposits on the public domain within grazing districts are not to be restricted, even though the lands are leased for grazing. 43 U.S.C. §§ 315d, 315e.

4. The Taylor Act allowed exchanges of public land for private to block up grazing districts and authorized the sale of isolated, disconnected and small tracts up to 160 acres. Exchanges and such sales are now made only under authority of FLPMA. In the Taylor Act conveyances, the Taylor Act required the reservation of all minerals to the U.S. Landowners who acquired surface estates under the Taylor Act hold their land subject to the superior right of lessees from the U.S. to remove the minerals. Carlin v. Cassriel, 50 L.D. 383 (1924); Transwestern Pipeline Co. v. Kerr-McGee Corp., 492 F.2d 878 (10th Cir. 1978).

IV. The location system applies to all valuable mineral deposits in the unreserved and unappropriated public domain.

A. 30 U.S.C. § 22, Mining Law of 1872: "Except as otherwise provided, all valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase, by citizens of the United States and those who have declared their intention to become such, under regulations prescribed by law, and according to the local customs or rules of miners in the several mining districts, so far as the same are applicable and not inconsistent with the laws of the United States."

B. 30 states were created out of the original public domain, so the mining law applied to these public land states at one time or another.
1. There are unreserved and unappropriated public lands left in only 19 states. These are Alaska, Arizona, Arkansas, California, Colorado, Florida, Idaho, Louisiana, Mississippi, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming.

2. The mining law for federal lands has little practical effect in the midwestern and eastern states.

3. The mining laws have the most importance in the 11 westernmost continental states, North and South Dakota, and Alaska. There the laws apply to the unreserved and unappropriated public domain, including federally reserved minerals under private lands subject to the Stockraising Homestead Act and the Taylor Grazing Act. The Dept. of Interior has never issued regulations making other federally reserved minerals subject to either location or leasing. Acquired lands, those purchased or acquired by the U.S. from a state or private party by purchase, gift, exchange or condemnation, are not subject to location.

V. During the settlement era of the public domain, from about 1800 to 1934, Congress was not prepared to adopt specific legislation on a regular basis to reserve specific lands of special value from operation of the general settlement laws.

A. While Congress did reserve special tracts, such as Yellowstone National Park in 1872, the great bulk of withdrawals have been made by the executive.

1. From the first, the presidents withdrew lands from entry to reserve them for Indian reservations, wildlife refuges, and other special uses. The president asserted an implied authority of the executive, as manager of the national assets and government, to withdraw, even though the Constitution specifically places all power to dispose of and regulate the public lands in the Congress. Art. IV, Section 3, Clause 2.

2. To control the large scale withdrawals of oil lands after 1900, Congress adopted the Pickett Act of 1920, 36 Stat. 841 [repealed by FLPMA of 1976]. The Pickett Act authorized the president to make temporary withdrawals from settlement and location for nonmetalliferous minerals, and to set aside
water power sites or lands to be classified for their best use. The Pickett Act expressly required such reservations to be left open for metalliferous mineral entry and location.

3. Even after the Pickett Act, the presidents continued to make reservations, frequently doing so under the implied authority because those withdrawals were permanent, at least until ordered otherwise by an executive. The Supreme Court held the presidents could make withdrawals under the implied authority since Congress had acquired and had not legislated otherwise. U.S. v. Midwest Oil Co., 236 U.S. 459 (1914).

B. Finally, by Sections 704 and 204 of FLPMA of 1976, 43 U.S.C. §§ 704, 204, Congress reasserted its authority over reservations and mandated they could be made thereafter only under authority of FLPMA.

1. After FLPMA, the executive can only withdraw tracts of more than 5,000 acres for periods up to 20 years and only after reporting to Congress the effect, including alternative sites, and the geologic potential of the lands withdrawn. Congress retains the right to revoke such withdrawals.

2. Tracts of less than 5,000 acres can only be withdrawn by the executive for specific uses of known resources.

3. Nevertheless, the BLM is refusing to issue mineral leases on some Overthrust Belt areas, especially in wilderness study areas, without reporting withdrawals to Congress. The practice is being challenged in two cases in the District of Wyoming federal court.

C. No one, not even the BLM, knows how many acres of public lands were withdrawn from mineral entry before FLPMA, or even has a master list of those withdrawn. Under FLPMA, each state BLM office is compiling this data from the individual orders issued willy-nilly over the years. The total acreage withdrawn is thought to be some 70% to 80% of the remaining public domain. In addition to withdrawals for Indian reservations, national forests, national parks, national wildlife refuges, national trails, national wild and scenic rivers, wilderness and primitive areas, national his-
toric sites, national monuments, national cemeteries, and such better known withdrawals, there are reservations for Naval Oil Reserves Nos. 1 through 4, military reservations, powersite and reclamation withdrawals, public stockraising water holes and stock driveways, oil shale withdrawals and many other withdrawals for specific uses.

1. FLPMA ratified the bulk of the past withdrawals by confirming the set-asides made for Indian reservations, national forests, national parks, national wildlife refuges, and national trails.

2. FLPMA gives Interior until 1991 to prepare a review of all other withdrawals in the West, including mineral withdrawals on BLM and national forest lands. The report is to go to Congress, with recommendations, for its action.

D. Despite FLPMA, which barred executive reservations except through its procedures, President Carter withdrew 56 million acres in Alaska in 1978, citing the Antiquities Act of 1906 as authority. At the same time, Secretary of the Interior Andrus withdrew over 100,000 million acres in Alaska under his authority granted by FLPMA to make emergency withdrawals for up to 3 years. These withdrawals were intended to force Congress to adopt an Alaskan Lands Bill to set aside much of Alaska, but so far, no such legislation has been passed out of Congress.

E. Notwithstanding the overhaul of withdrawal procedures made by FLPMA in 1976, a mineral entryman still must determine the authority under which specific reservations or withdrawals were made. Do that by examining the master title (MT) plat and the historical index of public land transactions in the state BLM office. Only after such a land status check will you know if the land is available for location of mining claims.

1. The MT plat visually portrays lands patented with mineral reservations to the U.S., state land grants, state selection lists, acquired lands, patented mining claims, all types of withdrawals, and unreserved public domain lands.

2. The use plat shows temporary uses such as mineral leases and special use permits.
3. Segregation of the withdrawals from mineral entry used to occur when Interior approved an application for withdrawal. After FLPMA, segregation occurs when notice of the proposed withdrawal is published in the Federal Register.

VI. There are several types of mining locations, and the locator must choose the right type for the purpose or the location will be a nullity.

A. Mineral deposits may be located either as lode claims or placer claims. The 1872 mining laws allows location of a "vein or lode of quarts or other rock in place" bearing valuable minerals. 30 U.S.C. § 23. Placers are all other forms of deposit. 30 U.S.C. § 35. In many modern cases, the choice is difficult since many low grade deposits now mined are disseminated deposits which do not fall clearly into one or the other category.

1. A lode is a zone or belt of mineralized rock in place, whether loose and friable or very hard, with reasonable trend and continuity, separated from neighboring nonmineralized rock (country rock) by reasonably distinct boundaries on either side. See McMullin v. Magnuson, 102 Colo. 230, 78 P.2d 964 (1938).

2. Placers are all other forms of deposit, including the traditional superficial deposits of precious metals washed down from a vein or lode into the bed of an ancient river or settled among the alluvium in beds of active streams, as well as deposits fixed between rock in place but which lack reasonable trend and continuity, and reasonable segregation from the neighboring country rock. Titanium Actynite Industries v. McLennon, 272 F.2d 667 (10th Cir. 1959).

3. Uranium in beds of sandstone is epigenetic, that is, carried into the formation by some solution after the host rock was formed. Still, it is locatable as a lode because it meets the requirements defined for a lode. Globe Mining Co. v. Anderson, 318 P.2d 373 (Wyo. 1957).

4. To err between locating as lodes or placers is fatal for a lode deposit will not sustain a placer location and vice versa. Bowen v. Chemi-Cote, 432
(a) The definitions emphasize the present form of the deposit more than its origin. The science of geology does not matter since the mining law was written for the practical miner, not the trained geologist.

(b) If a deposit is bounded on either side by rock in place, it is likely to be considered a lode. If the ore is on top of the ground and has no cover except a thin veneer of soil, it is likely to be a placer.

(c) In the case of a dispute, the courts tend to find in favor of the first locator.

B. Lodes in placers fit into the same definitions; the only difference is that the law gives lodes in placers special treatment so that placer claimants are constrained to identify and pay for lodes within the placer upon patenting. Otherwise, they would obtain title to both deposits by paying only for the placer deposit.

1. If there is a known lode within a placer claim, at the time of an application to patent to placer, the lode must be listed and paid for separately. 30 U.S.C. § 37. If not, the placer patentee is not entitled to possess it. Clipper Mining Co. v. Eli Mining & Land Co., 194 U.S. 220 (1904).

2. If a placer patent issues before a lode deposit is known to exist, the placer patentee gets it without additional payment.

C. The mining law of 1872 provides for tunnel sites where a horizontal excavation, called an adit, is dug in search of lodes or veins not appearing at the surface. 30 U.S.C. § 27. The tunnel site owner is entitled to possession of any previously unknown lodes discovered in the excavation for a distance of up to 3,000 feet along the excavation.

1. A monument must be placed at the portal of the adit, naming the locator and stating the proposed direction of the excavation, its height and width, and the course and distance from the portal to a
permanent object in the vicinity. The center line of the tunnel site must be staked on the surface to establish the surface area which is preempted from location by a junior locator.

2. The tunnel site locator is protected for a distance of 3,000 feet into the excavation, as to 1,500 feet in any direction of any blind lodes cut by the excavation which were not previously known. The tunnel site locator has priority even if the lode is located on the surface before it is intersected in the adit. Enterprise Mining Co. v. Rico-Aspen Consol. Mining Co., 167 U.S. 108 (1897).

3. The tunnel site, as such, conveys no surface rights, and the locator who discovers a lode in the excavation must make a lode location of the lode on the surface.

4. Discontinuing work for over 6 months constitutes abandonment of the tunnel.

5. Tunnel sites are uncommon today. Most exploration for ores in mountains, or on flatlands, and whether at deep or shallow depths, is done with drilling rigs.

D. Mill sites of up to 5 acres may be located on nonmineral land to provide space for working claims or reducing ores. 42 C.F.R. § 3864.1-1. The mill site may be used either in association with a specific lode or placer claim or independently, as a custom mill site. 30 U.S.C. § 42.

1. Rights to a mill site attached and the mineral character is determined as of the time of location, if construction is diligently pursued, and subsequently improved mineral economics do not deprive the owner of his rights. Cleary v. Skiffich, 28 Colo. 362, 65 P.59 (1901).

2. It is difficult in some mining districts to find usable land which is sufficiently nonmineral, and it can be difficult and costly to prove the nonmineral character to the BLM.

3. Mill sites are not mining claims; they are usually considered mining locations, but they may be patented under the mining laws.
4. The right to exclusive possession of unpatented mill sites depends upon actual use and occupancy for a proper purpose; that is, for mining or milling purposes. An anticipated future use is not sufficient. E.g., U.S. v. S.M.P. Mining Co., 67 I.D. 144 (1960). See 1 American Law of Mining, § 5.34.

VII. Procedures for locating claims are well settled, but it is often difficult in the field to follow the requirements carefully.

A. The Mining Law of 1872 allows the location of a mining claim by distinctly marking the location on the ground so that the boundaries can be readily traced, and making a record of the name or names of the locators, date of location, and a description of the claim by reference to some natural object or permanent monument which will identify the claim. 30 U.S.C. § 28.

1. State law or mining district regulations (no longer maintained) are authorized to supplement these federal requirements by detailing the location, manner of recording, amount of annual assessment work or improvements (not less than $100) necessary to hold possession of a claim.

2. Only in Alaska does the federal mining law require that location notices and annual assessment affidavits be recorded in the local records. 30 U.S.C. §§ 49a-44f.

3. State law in the western states requires the monumentation of claims (staking) by cornerposts, and, in some cases, side and end centerposts.

4. State law in the western states requires posting of a copy of the location notice on the claim at the point of discovery and recording it with the local county recorder.

B. For the first time, FLPMA of 1976 requires that claim location notices also be filed with the BLM state office.

1. If state law, such as those of the Midwest and South, do not provide for recording, the FLPMA regs require recording directly with the state BLM office. 43 C.F.R. § 3833.1-2(a).
2. Location certificates must be filed with the BLM for both mining claims and tunnel and mill sites as well.

3. The location certificate to be filed is an exact duplicate of that filed or transmitted for filing with the local county. 43 C.F.R. § 3833.0-5(i). If not appearing on that "official record", the BLM copy must contain other data, specifically the name or number of the claim, or both; the book and page of the local recording of the certificate of location, and amendments; the name and current mailing address of the owner, or owners, if known; the type of claim or site; the date of location; a legal description by township, range, section and quarter section; and, a map showing the location by reference to a quarter section. The filing fee is $5.00 per claim or site.

(a) U.S. topographic maps are frequently used.

(b) Contiguous claims or sites and groups of them in the same general area may be depicted on one map if each individual claim or site is identified. 43 C.F.R. § 3833.1-2.

(c) Failure to file with the state BLM office within 90 days from location means the claim is null and void, and that the land reverts to the public domain, Solicitor's Opinion, GFS (MIN) S0-1 (1978). The land may be withdrawn in the interim or relocated by a rival locator, and at the least, the original claimant would have the expense of relocating it.

4. Transfers of nonpatented mining claims and tunnel and mill sites must be filed with the state BLM office within 60 days of the transfer. Failure to file transfers does not invalidate the claim, but the transferee will not be given notice of any government contest of the location. 43 C.F.R. § 3833.3.

5. Location certificates for pre-FLMPA unpatented mining claims and sites, those located on or before October 21, 1976, had to be filed with the BLM state office within the 3 years following the Act, specifically, on or before October 21, 1979.

(a) There was a great land rush after October of 1979 to relocate claims which were deemed abandoned for failure to meet the filing deadline.

(b) The BLM expected that approximately 6 million claims would be registered, throughout the 11 Western States and Alaska, but only about 3 million were filed. The result was to eliminate many dormant claims which clouded title for later claims which are being actively developed.

6. Location certificates for post-FLPMA mining claims and sites, those located after October 21, 1976, must be filed with the BLM state offices within 90 days from the date of location. 43 U.S.C. § 1744(b).

7. A document is not deemed filed with the BLM until stamped by that office as received. 43 C.F.R. § 3833.1-2(a).

8. The FLPMA requirements of 1976 to file location certificates with the BLM for unpatented claims and sites is the first time a central registry of mining claims on federal lands has been established.

9. Assessment work affidavits for claims, but not sites, must also be filed with the BLM, using the serial numbers assigned for the claim when first filed.

(a) Section 314 of FLPMA, 43 U.S.C. § 1744, required filing of an affidavit of performance of assessment work, or a notice of intention to hold the claim, with the State BLM office before December 31 of each calendar year following the calendar year of location of the claim. If not, the claim is conclusively deemed abandoned, and many claims have been so treated.

(b) Prior to December 31 is on or before December 30.
(c) The time of location is determined by state law.

(d) The Mining Law of 1872 fixes the first assessment period as the twelve months commencing at 12:00 o'clock noon on the September 1 following the date of location. 30 U.S.C. § 28. Note that this is not the same as assessment work for the calendar year. Therefore, as to claims located after noon on September 1 and before midnight on December 31, the first assessment work is not required during the next calendar year. Nevertheless, FLPMA requires that proof of assessment work or a notice of intention to hold the claims be filed during that next calendar year since it requires such proof be filed prior to year end of each year following the calendar year of location. A notice of intention to hold the claim should be filed in this situation.

10. The BLM manages information about the unpatented claims and sites filed with it by use of a computer. Serial numbers are assigned to claims as the location certificates are filed. Those numbers, the names of the claims, the names of the claimants, and the quarter sections where the claims are located are sent from a computer terminal in the state BLM offices to a computer in the Denver Federal Center where the information is stored. Thereafter, a computer printout in the foregoing four parts is returned weekly to the state offices.

(a) The computerized data enables the BLM, as well as public users, to determine from the printouts where mining claims and tunnel and mill sites are.

(b) The data also enables the BLM to identify claims, or parts of claims, which the BLM rules void if located on withdrawn, appropriated, patented or otherwise nonlocatable land. The computer also is used to eliminate claims which become dormant for lack of timely filings.

C. The location of a mining claim consists of distinctly marking its boundaries on the ground, as required by federal law, and doing the validation work required by
state law. These include establishing monuments on the corners and sometimes the side centers and end centers, posting a location notice at the point of discovery, and recording it in with the local county. Some physical "discovery work" is required such as a shaft, drilling or a survey map of the claim.

1. "The location must be distinctly marked on the ground so that its boundaries can be readily traced. All records of mining claims . . . shall contain . . . such a description of the claim or claims located by reference to some natural object or permanent monument as will identify the claim." 30 U.S.C. § 28. Absent a sufficient description in the location certificate to enable identification of the location with reasonable certainty, the claim is void. U.S. v. Sherman, 288 F. 497 (8th Cir. 1923).

(a) The state laws govern the details of the boundary markers.

(b) Once the claim is marked sufficiently, obliteration of the monuments does not divest the claimant of his possessory rights. Eilers v. Boatman, 3 Utah 159, 2 P. 66 (1881), affirmed, 111 U.S. 356 (1884). Only California, by statute, requires maintenance of the claim boundary markers. But, to fail to strictly maintain the boundary markers subjects the claims to overstaking on the assertion it was not located properly or was not being maintained.

2. 30 U.S.C. § 23 provides no location shall be made until the discovery of the vein or lode, but it makes no difference whether the physical location or the mineral discovery occurs first. E.g., Creede & Cripple Creek Mining & Milling Co. v. Uinta Tunnel Mining & Transportation Co., 196 U.S. 337 (1904); Union Oil Co. v. Smith, 249 U.S. 337 (1919). The location is unperfected until there is a mineral discovery.

3. Whenever the legal acts of location are established and discovery of a valuable mineral has occurred, a valid location exists, provided rights of third parties have not intervened discovery. Only then does the locator acquire a vested property right as against the U.S. and third parties. Davis v. Nelson, 329 F.2d 840 (9th Cir. 1964).
4. Prospectors have the right to explore and prospect the public domain, 30 U.S.C. § 22; they have the right to stake claims before making a discovery, 30 U.S.C. § 23; but their claim is not perfected against the U.S. or third parties until there is an actual discovery of a valuable mineral. Davis v. Nelson, supra.

5. The right of access to the open public domain to explore for locatable minerals is a statutory right. 30 U.S.C. § 22 makes such lands "free and open to exploration and purchase . . . under regulations prescribed by law . . ." See, e.g. Davis v. Nelson, supra.

VIII. The person who is actively and diligently exploring a prospect is protected on the land being explored against another locator of the same land. These rights prior to discovery are known as the doctrine of pedis possessio.

A. Exploration typically proceeds now by aerial surveys for anomalies and scientific surveys for traces of minerals in air, water, vegetation and soil samples.

B. Favorable results may be followed by deep drilling for potential host formations. The underground host formations are then systematically traced for mineral traces and finally narrowed to a mineral deposit.

1. Drilling and other exploration is extremely expensive.

2. Explorers seek to protect their investment by claiming all of the target area, thus insuring that any commercial deposit within the region will be under their claims. This is regional exploration.

C. The doctrine of pedis possessio is set forth in Union Oil Co. v. Smith, 249 U.S. 337 (1919) and Cole v. Ralph, 252 U.S. 206 (1920): "In advance of discovery an explorer in actual occupation and diligently searching for mineral is treated as a licensee or tenant at will, and no right can be initiated or acquired through a forcible, fraudulent or clandestine intrusion upon his possession. But if his occupancy be relaxed, or be merely incidental to something other than a diligent search for mineral, and another enters peaceably, and not fraudently or clandestively, and makes a mineral discovery and location, the location so made is valid and must be respected accordingly."

(a) Pedis possession protects against forcible entry.

(b) Entry must be denied but the denial need not be successful or risk a dangerous confrontation. The first claimant should yield the ground, without consenting, and seek his legal remedy. In land rushes, the claim block should be patrolled to deny all others than authorized officials.

2. The claimant must be actively exploring for minerals by work reasonably directed toward discovery of a valuable mineral to qualify for pedis possessio.

(a) Acts of location such as posting monuments and recording notices do not qualify. Adams v. Benedict, 64 N.M. 234, 327 P.2d 308 (1958).

(b) Mere performance of assessment work is insufficient. U.S. v. Stockton Midway Oil Co., 240 F. 1006 (S.D. Cal. 1917).


(d) Negotiations with others to do the work is not pedis possessio work. McLemore v. Express Oil Co., 164 Cal. 650, 130 P. 417 (1913).

(e) Exploration plans, without more are insufficient. Ranchers Explor., supra.

(f) Construction of drilling pads may qualify. U.S. v. Grass Creek Oil & Gas Co., 236 F. 481 (8th Cir. 1916).

3. The traditional rule is that pedis possessio protects the prospector's right not only to the immediate vicinity of his workings but to the entire claim, if he has staked a claim. Gemmell v.
Swain, 28 Mont. 331, 72 P. 662 (1903). Pedis possessio rights do not extend beyond the claim or claims on which the work is being done. Geomet Explor., Ltd. v. Lucky Mc Uranium Corp., 601 P.2d 1339 (Ariz. 1979); Adams v. Benedict, 64 N.M. 234, 327 P.2d 308 (1958).

(a) The federal courts in the Tenth Circuit have held, however, that pedis possessio rights can extend to a group of claims staked on an area even though the claimant is only actually in physical occupation of some of the claims. MacGuire v. Sturgis, 347 F.Supp. 580, (D. Wyo. 1971); Continental Oil Co. v. Natrona Services, Inc., 588 F.2d 792 (10th Cir. 1978).

(b) The MacGuire v. Sturgis rule for pedis possessio holds that a locator is entitled to "... the exclusive possession [of claims] on a group or area basis, where, as here the following exists or was done for his benefit:

(a) the geology of the area claimed is similar and the size of the area claimed is reasonable;

(b) the discovery [validation] work referred to in the Wyoming Statute is completed;

(c) an "overall work program" is in effect for the area claimed;

(d) such work program is being diligently pursued, i.e., a significant number of exploratory holes have been systematically drilled; and

(e) the nature of the mineral claimed and the cost of development would make it economically impracticable to develop the mineral if the locator is awarded only those claims on which he is actually present and currently working."

(c) In Continental Oil v. Natrona Service, the Tenth Circuit impliedly approved the MacGuire rule by applying it. The senior locator lost over half the 2,040 uranium claims to the
junior because Conoco had not keep drill hole logs of the validation drilling, i.e., the 50 feet of drilling done on each claim at the time of staking to comply with the Wyoming location law. Without such a drill log, the jury did not believe that 50 feet of hole had been drilled on each claim. Also, some claim monuments were found lying on the ground and had never been erected. Conoco lost 1,200 claims and kept 840 which had not been overstaked. The trial court awarded 19 of the 1,200 claims to Conoco, notwithstanding the jury verdict, because it had drilled 48 deep exploration holes on them.

(d) The Arizona Supreme Court refused to follow the Tenth Circuit rule of pedis possession on an area basis in Geomet Exploration, supra. Area pedis possessio is the law in Wyoming, however, and probably throughout the other Tenth Circuit states, at least in the federal courts where there is not state law to the contrary. The Tenth Circuit states are Wyoming, Utah [may have rejected area pedis possessio in Ranchers Explor. & Develop. Co. v. Anaconda Co., 248 F.Supp. 708 (D. Utah 1965)], Colorado, New Mexico [rejected area pedis possessio in Adams v. Benedict], Kansas and Oklahoma, both later states being without locatable public domain.

(e) The Supreme Court has granted certiorari to the Geomet case, so the law of pedis possessio may be further defined in 1981. Case No. 79-1203. The Justice Department urges affirmance as well as strict application of the Coleman test of present marketability even to contests between rival locators.

IX. Discovery of a valuable mineral deposit is the sine qua non of a valid mining claim, but the term is not defined in the Mining Law of 1872. All the law requires is "discovery of a vein or lode within the limits of the claim . . . ." 30 U.S.C. § 23. And, the law provides for patents to "any land claimed and located for valuable deposits." 30 U.S.C. § 29. Without a definition in the Act, the courts have had to develop a judicial definition of discovery which has grown stricter since 1933 and especially since the environmental movement.
A. The first test of discovery was set out in Castle v. Womble, 19 L.D. 455. "When minerals have been found and the evidence is of such a 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 valuable mine, the requirements of the statute have been met."

1. The Castle v. Womble rule is known as the prudent man test. The test is not whether the individual claimant feels justified in expending his labor and means, but whether a reasonable person would be so justified.

2. The prudent man test was adopted by the Supreme Court in Chrisman v. Miller, 197 U.S. 313 (1905).

3. The test of mineral discovery has always been applied most strictly against the locator when the U.S. contests the claim that it has when a junior locator overstakes a senior locator's claim. See Chrisman, supra. This is because the rival locators are both claiming the same values, whatever they may be. Berto v. Wilson, 324 P.2d 843 (Nev. 1958).

B. The Mining Law of 1872 requires discovery of a valuable mineral deposit within the claim. The mineral must be exposed in discovery workings, brought to the surface in core drilling samples, or in some other reliable way, proved to exist.

1. The presence of uranium, or other fissile source mineral, may be proved by radiometric readings from probe instruments deep down the drill hole, if corroborated by other evidence of the mineral. Western Standard Uran. Co. v. Thurston, 355 P.2d 377 (Wyo. 1960).

2. The discovery of a valuable mineral deposit may be corroborated by the geology of the general area, other known ore bodies or discoveries in the area, assay samples, and any other reliable information which miners consider as bearing on the possibility of developing a paying mine. Rummell v. Bailey, 7 Utah 2d 137, 320 P.2d 653 (1958).

C. In 1933, the Dept. of Interior formulated another, more stringent, test of discovery for nonmetallic minerals
of widespread occurrence such as sand and gravel. Interior succeeded in convincing the Supreme Court in 1968 to adopt this test, the present marketability test, a compliment and refinement of the prudent man test. *U.S. v. Coleman*, 390 U.S. 599 (1968).

1. The present marketability test requires the mineral claimant to show the deposit can be mined, removed and marketed, at present, at a profit after considering accessibility, development, proximity to market, existence of present demand, and other factors. *Foster v. Seaton*, 271 F.2d 836 (D.D.C. 1959).

2. The present marketability rule requires that all costs of mining, removing and marketing the mineral be calculated and considered. These costs even include a reasonable rate of return on the capital invested.

3. The present marketability test, as adopted by the Supreme Court, applies to all locatable minerals, not just to nonmetallic minerals of widespread occurrence. *Converse v. Udall*, 399 F.2d 616 (9th Cir. 1968).

4. Despite the Supreme Court's assertions, the two tests of discovery are not complimentary; they are diametrically opposed.

   (a) The marketability test requires proof that the mineral can be extracted, removed and sold at a profit, at the present. The prudent man test requires proof that there is a reasonable prospect of success, in the future, of developing an economic mine. Thus, the marketability test requires proof of present profitability, and the prudent man test requires reasonable proof of future profitability.

   (b) The marketability test delays the time rights vest in the locator, leaving the location vulnerable to government contest. The requirement to prove present marketability during the exploration stage, long before the cost details can be accumulated, assures the government of winning a contest. This defeats the statutory right of locators.
(c) The prudent man rule recognizes the realities of mineral development. These include normal market cycles and other foreseeable future conditions which the present marketability test rules out.

(d) Since Interior convinced the Supreme Court the two opposing rules are complimentary, and the marketability rule only a refinement of the well-settled prudent man rule, Interior and the courts have had to reconcile the two and apply one new rule. Since reconciliation is logically impossible, the marketability rule is given lip service and then largely ignored except for nonmetallic minerals of widespread occurrence, claims in areas of special public interest, and applications for patents to claims. The result is unpredictability, and the rule of men, not of law.

5. The excess reserves rule of Interior which would void all locations of valuable minerals in excess of the reasonably anticipated market need is contrary to the mining law and the tests of discovery. Baker v. U.S., 613 F.2d 224 (9th Cir. 1980).

D. The effect of discovery of a valuable mineral deposit is to perfect the claim.

1. The claim is segregated and removed from the unappropriated public domain.

2. The owner is entitled to exclusive possesson of the surface, 30 U.S.C. § 26, and, as to claims perfected after the Surface Resources and Occupancy Act of 1955, subject to surface rights of government agents and licensees which may not materially interfere with mining operations, 30 U.S.C. § 612, and to all veins, throughout their depth, which appex within the claim. 30 U.S.C. § 26.

3. When the location of a mining claim is perfected, by both acts of location and discovery, it has the effect of a grant by the U.S. of present possession. The claim is property in the fullest sense of that term; and may be sold, transferred, mortgaged, and inherited
without infringing any right or title of the U.S. Thw owner's right is taxable by the state; it is real property subject to judgment liens. The owner is not required to purchase the claim by securing a patent from the U.S., but so long as he complies with the mining laws, and performs assessment work of at least $100.00 annually, is entitled to hold the claim and develop and market the minerals without payment of royalties. Wilbur v. U.S. ex rel. Krushnic, 280 U.S. 306 (1930).

X. Extralateral rights, granted by the Mining Law of 1872, 30 U.S.C. § 26, give the locator exclusive right to all veins, lodes and ledges, throughout their entire depth, if the top or apex lies within the surface lines of the claim extended downward vertically, and may follow the veins in their downward course outside the vertical extension of the side lines, but within the vertical extension of the end lines.

A. Extralateral rights mean that, once a claimant establishes the apex of a vein within the boundaries of the claim, he may follow the vein on its downward course outside the claim so long as he stays within the extension of the end lines.

1. The locator is presumed to own all ore within the boundaries extended downward vertically. St. Louis Mining & Milling Co. v. Montana Mining Co., 194 U.S. 235 (1904).

2. The one asserting extralateral rights under another's claim must have the apex within his claim boundaries. Consol. Wyo. Gold Mining Co. v. Champion Mining Co., 63 F. 540 (N.D. Cal. 1894).

3. Veins are more likely pursued now by vertical shafts and adits dug from the shaft than by following the vein downward. This presents difficult problems of proving continuity of the vein in the shaft with the vein whose apex is in the claim. See Silver Surprize, Inc. v. Sunshine Mining Co., 15 Wash. App. 1, 547 P.2d 1240 (1976).

4. Blind appexes are those which do not outcrop on the surface, but are somewhere below. The blind appex must be proved to be within the claim if extralateral rights for that claim are to be
recognized. Flagstaff Silver Mining Co. v. Tarbet, 98 U.S. 463 (1879).

B. Extralateral rights are confined, by the statute, to such parts of the vein outside the claim as lie between vertical extensions of the end lines. Thus, the location of the apex in relation to the end lines fixes the sweep of extralateral rights.

1. This means, ideally, that the apex should cross both end lines, entitling the locator to exercise extralateral rights to the greatest extent allowable.

2. If the apex crosses one end line and passes out a side line, the courts locate an imaginary end line where the apex go outside the side line. This narrows the width of extralateral rights.

3. If the apex crosses one end line and terminates within the claim, an imaginary end line is fixed where the vein terminates. This also limits extralateral rights.

4. If the apex crosses both side lines, the end lines become the side lines, and vice versa, for fixing extralateral rights.

5. 30 U.S.C. § 23 requires that claims be located with the side lines parallel to the course of the vein. "A mining claim . . . may equal, but shall not exceed, 1500 feet in length along the vein or lode. . . ." "No claim shall extend more than 300 feet on each side of the middle of the vein at the surface . . . ." Therefore, the strike of the vein, its course along the surface, must be determined to ascertain the orientation of the long axis of the claim with the strike. Argentine Mining Co. v. Terrible Mining Co., 122 U.S. 478 (1887). This is the basis for changing the orientation of the claim, as previously described, in determining extralateral rights and in fixing the claim boundaries for patent, also. End lines may only be brought parallel or adjusted if done within a reasonable time and without including new ground. Doe v. Sanger, 83 Cal. 203, 23 P. 365 (1890).

6. Floating claims are not allowed; that is, end lines may not be moved from time to time to take

C. The purposes of recognizing extralateral rights are to encourage complete mining of a deposit by allocating ownership of the entire deposit.

1. Confining extralateral rights to end line extensions is intended to fairly allocate the deposits among locators according to the surface of the claims.

2. If the end lines are not parallel, the sweep of extralateral rights could be ever-widening. Thus, 30 U.S.C. § 23 requires parallel end lines. End lines will be considered parallel if substantially so. Grant v. Pilgrim, 95 F.2d 562 (9th Cir. 1938).

3. If the vein splits and dips, in both directions, the locator has the right to follow both.

4. Extralateral rights do not extend into all lands.
   (a) Extralateral rights extend into mining lands, whether patented or unpatented, and whether the other location is junior or senior.
   (b) Extralateral rights do not extend into previously patented agricultural lands because a conclusive presumption arises, upon patenting, that these lands were nonmineral, else the patent would not have issued.
   (c) Extralateral rights vest when a claim is perfected by location and discovery; therefore those vested extralateral rights do extend into subsequently patented agricultural lands.

5. Extralateral rights do not attach to all mining claims, only those with a vein or lode which apexes within the limits of the claim.
   (a) Extralateral rights do not attach to placer claims; they are not based on veins or lodes.
(b) Extralateral rights do not attach to disseminated ore bodies which are bedded and nearly horizontal because they have no apex.

6. If veins intersect underground, the prior location takes the mineral in the intersection, but the junior location is entitled to a right of way through the intersection.

7. If veins fork or split, leading in two directions, the senior locator has the right to both.

XI. Assessment work is required by the Mining Law in order for the locator to demonstrate that he was claiming possession in good faith, for mining purposes, and to give notice to rival locators of his claim. Chambers v. Harrington, 111 U.S. 350 (1884); Udall v. The Oil Shale Corp., 406 F.2d 759 (1969), reversed on other grounds, 400 U.S. 48 (1970).

A. "On each claim located after the 10th day of May, 1972, and until a patent has been issued therefor, not less than $100 worth of labor shall be performed or improvements made during each year." 30 U.S.C. § 28. The assessment year is the annual period commencing on 12:00 o'clock noon on the 1st of September succeeding the date of location.

B. If the work is not performed as and when required, the ground is then open to location by another claimant as if no prior claim had been staked. However, if the initial claimant or successors resumes assessment work, no relocation may be made. 30 U.S.C. § 28; Belk v. Meagher, 104 U.S. 279 (1881).

C. Until Hickel v. The Oil Shale Corp., 400 U.S. 48 (1970) (the TOSCO case), only a rival locator could challenge a claim by relocating it for failure of assessment work. The TOSCO decision held that the validity of an unpatented claim depends on substantial compliance with the assessment work requirement. The TOSCO decision of 1970 recognized, for the first time, the right of the government to contest claims for failure to do assessment work as and when required, but it may not apply to any mining claims except pre-1920 oil shale claims.

1. The TOSCO case is a minority opinion, difficult to reconcile internally, and opposed to the Interior rule in effect up to its adoption that Interior had no authority to assert failure of assessment work as grounds for invalidating a claim.
2. The TOSCO case was based on special facts, namely oil shale claims located on ground which had been withdrawn from location and not subject to relocation by other private parties.

3. Even though Interior amended its regs. to assert that its power to challenge claims applied to all minerals, it is doubtful that the U.S. can attack claims to other minerals on this basis, at least where the ground had been open at all times to mineral entry and location.

4. The resolution to this question will determine whether the claimant should resume labor (to revive a dormant location which Interior may claim was void) or relocate (to initiate a new right).

5. The Supreme Court held in 1980 that oil shale claims were not subject to the usual discovery test for a valuable mineral deposit requiring present marketability because Congress had implicitly ratified the application of the prudent man test to oil shale in hearings of 1918, 1930-31, and 1956, clearly recognizing oil shale as a valuable mineral subject to location and patent. Andrus v. Shell Oil Co., 48 L.W. 4603 (June 3, 1980).


1. "Discovery is the source of title to a mining claim, and until a discovery of mineral is made within the claim, the location is not perfected. Accordingly, until a discovery is made, the question of the performance of assessment work is immaterial." 2 Am. Law of Mining § 7.7.

2. Before discovery, locators do assessment work to comply with state law, and since 1976, with FLPMA, requiring the filing of assessment affidavits after location of a claim and to ward off rival locators.

(a) Before discovery, the locator has the prediscovery rights of pedis possessio. Pedis possessio requires actual occupation of the claim in a diligent search for mineral.
(b) After discovery, the location is perfected and actual occupation is no longer required. Rather, rights are maintained by the construction possession given by the recorded location certificates and by the performance of annual assessment work.

3. Mere performance of assessment work before discovery does not necessarily constitute diligent exploration for pedis possessio purposes. 1 Am. Law of Mining § 4.8.

4. Since assessment work can only be done after a discovery, it must be done to develop the deposit.

E. The definition of assessment work is that it must directly tend to develop the deposit and facilitate the extraction of minerals. Smelting Co. v. Kemp, 104 U.S. 636 (1882); Great Eastern Mines, Inc. v. Metals Corp. of America, 86 N.M. 717, 537 P.2d 112 (1974). It is not the amount of the expenditure which counts, but the reasonable value of the labor or improvements toward development of the claim which is critical. Smelting Co. v. Kemp.

1. Exploration work to make a discovery does not qualify as assessment work.

2. Exploration work after discovery of a valuable deposit to further define the limits of the deposit and other characteristics such as its average grade would qualify as assessment work. Indeed, development drilling is usually essential to mine planning and development.

3. Development work is that which provides access to the mineral deposit for extraction of ore. Development work therefore qualifies as assessment work.

4. Of course, actual mining operations qualify as assessment work.

5. Construction of improvements such as buildings, shafts, the addition of machinery, and other structures for extraction of mineral qualify as assessment work.
6. Building a mill does not always count as assessment work because a mill does not facilitate extraction of ore from the ground.

7. Construction of ore houses qualifies as assessment work but not residential cabins unless mining operations were actually conducted and housing on site was necessary to those operations.

8. Construction of roads and bridges can be assessment work if it facilitates extraction of the mineral.

9. No list of work or improvements can be drawn which always qualifies as assessment work. What qualifies depends on the particular discovery.

F. By a 1958 amendment to the Mining Law, assessment labor was defined to include geological, geochemical, and geophysical surveys if conducted by a qualified expert and verified by a detailed report filed of record. 30 U.S.C. § 28-1.

1. These scientific surveys are the typical reconnaissance method used in regional exploration to find a deposit, but not to develop a known deposit.

2. Scientific surveys are rarely filed as evidence of assessment work, especially since the law requires disclosure of the basic findings at specific points.


H. Assessment work need not occur on the claims, or even on contiguous claims, despite the misunderstandings flowing from a loose dictum in Chambers v. Harrington, 111 U.S. 350 (1884), but can occur "at a distance from the claim itself." Smelting Co. v. Kemp, 104 U.S. 636 (1881).

1. In Chambers, the Supreme Court said assessment work performed off one claim can only qualify as work for that claim if it occurs on a contiguous claim. But Chambers involved a shaft which can only benefit specific claims if it is extended to them by drifts or tunnels.
2. Despite Chambers, courts do allow assessment work to qualify even if performed outside contiguous claims, at least if it tends to develop the claim and facilitate extraction of minerals. Thus, road, ditches to divert water to the site, regional drilling and other work in geologic basis have been accepted. See 2 Am. Law of Mining, Ch. III.

(a) The requirement of contiguity would be illogical.

(b) The important test is benefit; whether the work benefits the claims.

3. The Mining Law, 30 U.S.C. § 28, specifically allows the work done on any one claim to be apportioned among a group to hold all of them, if the claims are held in common.

(a) There must be a community of interest in the claims giving some common right in the assessment work. The owner whose possessory right depends on work done elsewhere must have a legal relationship to the work done if it is to inure to the benefit of his claims. New Mercur Mining Co. v. South Mercur Mining Co., 102 Utah 131, 128 P.2d 269 (1942), cert. denied, 319 U.S. 753 (1943).

(b) If the work has a direct tendency to develop two sets of claims owned by different parties, the lessee of both sets of claims may apply the work to both sets, even without the consent of the owner where the work was done. New Mercur.

I. "Upon the failure of any one of several co-owners to contribute his proportion of the expenditures required [for assessment work], the co-owners who have performed the labor or made the improvements may, at the expiration of the year, give such delinquent co-owner personal notice in writing or notice by publication in the newspaper published nearest the claim, for at least one week for ninety days, and if at the expiration . . . such delinquent should fail or refuse to contribute his proportion . . ., his interest . . . shall become the property of his co-owners. . . ." 30 U.S.C. § 28.

1. This 1872 forfeiture provision does not comport with current concepts of due process notice holding
service by publication isn't adequate notice when the actual whereabouts of the party are known.

2. It may be that the 1872 procedure is adequate considering that Congress has the sole power over the public lands according to such rules and regs. as it deems necessary. Property clause.

3. To be safe, however, it is advisable to obtain personal service in forfeiture proceedings.

XII. Even a perfected mining location, if unpatented, does not entitle the claimant to unfettered and exclusive use of the surface.

A. As to all claims not located or not perfected by a discovery as of July 23, 1955, when the Surface Resources Act was adopted, the U.S. retains the right to manage and dispose of the vegetative resources, to manage other surface resources, and to use the surface, for itself, its permittees and licensees, for access to adjacent land. Surface Resources Act of 1955, 30 U.S.C. § 612.

1. The use of the mining claim surface may not endanger or materially interfere with mineral operations.

2. If the locator requires more timber than that left by the U.S., he is entitled to free timber from the U.S.

3. Except to the extent required to clear for mineral operations and the construction of mining structures, the locator may not cut timber or other vegetative resources.

4. Government permittees and licensees may go on unpatented mining claims to pursue that right or to gain access to other federal land for that purpose so long as there is no interference with ongoing mining operations. Examples, not exclusive, are hunting, fishing, camping. U.S. v. Curtis-Nevada Mines, Inc., 415 F.Supp. 1373 (E.D. Cal. 1976), affirmed, 611 F.2d 1277 (9th Cir. 1980) (defining government permittees and licensees as general members of the public who need not hold a written permit except as to an activity which is specifically regulated).
5. Guards may be employed to protect the claim, if they give proper persons access, but unmanned fences, barricades and no-trespass signs are not proper. U.S. v. Curtis-Nevada Mines, 415 F. Supp. 1373. The locators of active mining operations have the right to forbid trespass in their buildings, mine workings and mills.

B. The regulations for surface management of mining claims which were proposed by the Dept. of the Interior on March 3, 1980, 45 FR 13956, would create a substantial new impediment to mineral operation on the public domain.


(a) 30 U.S.C. § 22, the Mining Law of 1872, does not give the Secretary authority to make law concerning appropriation of mineral deposits. That power is reserved to Congress under the Article 4 property clause. Const., Art. IV, § 3, cl. 2.

(b) Neither does 30 U.S.C. § 22 grant authority to the Secretary to make regulations for appropriation of mineral deposits. Instead, the only authorization in the Mining Law of 1872 to promulgate such regulations is that in 30 U.S.C. § 38 which grants the power to "the miners of each mining district." Butte City Water Co. v. Baker, 196 U.S. 119 (1905) (holding the authority to prescribe the regulations is granted to the miners in the mining districts, but may also be exercised by the states, as successors); See D. Sherwood, Mining-Claim Recordation and Prospecting under FLPMA, 23 Rocky Mtn. Mineral L. Inst. 1, 9-10 (1977).

(c) True, FLPMA requires the Secretary of the Interior to take any action necessary to prevent unnecessary or undue degradation of the public lands, 43 U.S.C. § 1201; but the same section provides that neither this
section nor any other section of FLPMA "shall
in any way amend the Mining Law of 1872 or
impair the rights of any locators or claims
under that Act, including but not limited to,
rights of ingress and egress," except as
FLPMA requires federal recordation of mining
claims, provides for BLM wilderness study, or
specifically allows regulation of all mining
claims on public lands within the California
Desert Conservation Area.

(d) The most reasonable interpretation is that
FLPMA does not authorize the proposed regs.
insofar as they would "impair the rights of
any locators or claims under [the 1872 Mining
Law], including, but not limited to, rights
of ingress and egress." It will remain for
the courts to determine of the BLM surface
management regs. can be sustained.

(e) As opposed to BLM-managed lands, there is
statutory authority for the Forest Service to
control mining operations in national forests.
16 U.S.C. § 478 provides mineral development
"must comply with the rules and regulations
covering such national forests," but the
Mining Law of 1872 has not been amended so
much by this part of the Organic Act of 1897
as to allow the Forest Service surface man­
agement regs. to bar mining operations.

(f) The Surface Resources Act of 1955, 30 U.S.C.
§ 612, states that "rights to any mining
claim . . . shall be subject . . . to the
right of the United States to manage . . .
the surface resources." This authority to
protect and sell vegetation and other re­
sources should not be deemed a general
authority to control mining operations, and
it is not cited as authority by the Forest
Service for its regs. or by the BLM for its
proposed regs. It does authorize the Forest
Service to bar use of a backhoe, bulldozer,
and blasting, even on a valid, perfected
mining claim, as unreasonable destruction of
national forest lands. Richardson v. Andrus,
599 F.2d 290 (9th Cir. 1979), cert. denied,
100 S. Ct. 663 (1980).
(g) The Forest Service has required miners to obtain approval of a plan of operations if the proposed mining activity may affect surface resources on land managed by the Forest Service. 36 CFR §§ 252.1-252.15.

(h) The proposed BLM regs. state "it is the policy of the regulation [sic] to encourage the development of Federal mineral resources. Under the 1872 Mining Law (30 U.S.C. 23 et seq.), a person has a statutory right, not a mere privilege, consistent with Departmental regulations, to go upon the open (unappropriated and unreserved) public lands for the purpose of mineral prospecting, exploration, development and extracting." 43 C.F.R. § 3809.0-6. It is hypocritical to say the regs. encourage mining.

2. The proposed BLM regs. would apply to all locatable public lands, including stockraising mineral reservations, but not to units within the National Parks or Forests. The Forest Service has its own regs. for these areas.

3. The main thrust of the proposed BLM regs., 43 C.F.R. § 3809.1-1, is to require a plan of operations be submitted to the BLM for approval prior to any mining operations involving:

(a) Construction or improving roads, bridges, landing areas;

(b) Destroying trees of 2" or more at the base;

(c) Using tracked or mechanized earth moving equipment;

(d) Using motor vehicles off "open use areas and trails";

(e) Placing mobile or fixed structures for over 30 days;

(f) Using explosives;

(g) Operations which "may cause changes in a water course."
4. The plan of operations must include, 43 C.F.R. § 3809.1-3:

(a) The identity of the operator;

(b) A topo map or sketch of access roads and surface areas to be disturbed;

(c) The operation, means of performance, and structures and facilities. The operator may submit proposed reclamation measures;

(d) The serial number of any claims;

(e) For mining operation in wilderness areas, a statement of the manner and degree of operations before FLPMA was adopted on Oct. 21, 1976. Those cannot be exceeded because FLPMA precludes impairing potential BLM wilderness areas for inclusion in the Wilderness System.

5. The BLM district office has 30 days to approve or disapprove the plan or require changes, or may state 60 more days will be needed for review.

6. Even after a plan is approved, the BLM may require modifications.

7. The operator must file a bond in an amount determined by the BLM as assurance of reclamation.

8. The BLM may seek a court order to enjoin violations. 43 C.F.R. § 3809.3-2.

9. The regs. recognize that the operator is entitled to access to his mining operations under the mining laws, but authorizes the BLM to locate the access route, maintenance, and vehicles. 32 C.F.R. § 3809.3-3.

10. The general public does not have a right to appeal a BLM decision.

11. The regs. contemplate eventual adoption of federal-state programs for adoption.

XIII. There is no legal requirement that mining claims or sites be patented. If they were validly located and the possessory right maintained according to the federal and state laws and
regulations, the claims remain valid without a patent. Clipper Mining Co. v. Eli Mining & Land Co., 194 U.S. 220 (1904).

A. The mining claimant only has a possessory title, one dependant upon his maintaining possession and subject to the paramount title of the U.S.

B. Nevertheless, the mineral deposits in unpatented mining claims may be entirely removed without obtaining a patent or payment to the U.S.

C. The Dept. of the Interior is now the principal adversary of unpatented claim holders.
   1. The BLM may challenge claims for lack of discovery, failure of assessment work, or nonavailability of the land for location, or failure to file required notices.
   2. The new BLM surface regs. are another means for the BLM to impede mining.

D. Rival locators may over stake unpatented claims.

E. A patent conveys the fee simple title within the area patented and to the full extent of all veins or lodes which apex within the claim.

F. The inherent insecurity of title and tenure which are posed to mining claimants virtually compels a patent application for any sizeable mining operation.
   1. Mining operations costs hundreds of millions for environmental studies and permits, water rights, mills, mining, hauling, treating, smelting, shipping and reclamation.
   2. Mining companies and lenders must have security of title.

G. The Mining Law of 1872 extends the right to patent, that is, the right to purchase fee simple title from the U.S.
   1. At least $500 worth of development work and a valuable mineral deposit are required on each claim.
2. The statute is still the same as in 1972, but the burden of proving entitlement to a patent has increased substantially.


I. There are three major steps to the patent process.

1. The mineral survey marks the legal boundaries of the claim or site.

2. The patent application is then filed and adjudicated by the BLM to establish the applicant's eligibility, available of the land, and the publication of public notice to allow adverse claims by other locators.

3. If a favorable office adjudication results, the most critical stage ensues, namely the mineral examination by a U.S. mineral examiner.

4. If the mineral exam is favorable, the claims are clearlisted for patent, and the patent issues in due course.

   (a) If a valuable mineral discovery is not proved, the U.S. automatically invalidates the location rather than just rejecting the patent. U.S. v. Carlile, 67 I.D. 417 (1960).

   (b) The locator can relocate and continue development work, at least if the land hasn't been withdrawn by the U.S. or located by a rival locator in the interim.

J. An environmental impact statement is not required by the National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4347, § 4332(C), prior to issuance of a mineral patent. Section 102(2)(C) of NEPA requires federal agencies to prepare an EIS for "major federal actions which significantly affect the quality of the human environment."

1. The EIS is intended to aid the federal agency in evaluating alternations to the proposed action, to aid in decision making.

3. Upon satisfying the requirements of the Mining Law, the claimant has an absolute right to a patent from the U.S., and the actions by Interior to process the patent application are not discretionary; issuance of a patent can be compelled by court order. The patent can contain no conditions not authorized by law. Furthermore, the claimant need not apply for patent to preserve his property right in the claim but may extract all the minerals without ever acquiring full legal title. The patent, if issued, conveys fee simple title to the land, but does nothing to enlarge or diminish the claimant's right to its locatable minerals. South Dakota v. Andrus, 614 F.2d 1190 (8th Cir. 1980) (quoting the lower court with approval).

(a) The Eight Circuit concluded it is "at least doubtful" that mineral patent issuances are actions subject to NEPA. Also, the Eight Circuit doubted that an EIS is compatible with the Secretary's duties under the Mining Law. South Dakota v. Andrus, 614 F.2d 1190 (8th Cir. 1980) (petition for cert. pending). Cf. Natural Resources Defense Council, Inc. v. Berklund, 609 F.2d 553 (D.D.C. 1979).

(b) The Eight Circuit held that the issuance of a mineral patent is not a major federal action because it does not enable the patentee to begin mining operations. Instead, opening a mine on Forest Service lands will probably require discretionary actions in the future, e.g., Forest Service permits for roads, water pipelines and railroad rights of way. 43 U.S.C. § 1761(a)(1) and (a)(6). If these, or the plan of operations required by the Forest Service regs., 36 C.F.R. Part 252, are major federal actions, an EIS may be required then. South Dakota v. Andrus.
(c) The same can be said of other public lands, namely, if any one of the various permits required for mineral operations is a major federal action, an EIS may be first required.

XIV. The hostility of government regulatory officials, encouraged by private conservation groups, has seriously hampered the mining industry and has caused a serious shortage of minerals.

A. True, the mining laws need improvement to better promote mineral exploration.

1. The Mining Law of 1872 was enacted over a century ago for other conditions.

2. Secure exploration rights to regional areas cannot be obtained. Pedis possessio affords only weak protection against rival locators and none against the withdrawal by the U.S.

3. The acreage limits of roughly 20 acres per claim are insufficient for modern mining projects and techniques. Economic mining units which cover the deposit, however shaped, are needed.

4. Tunnel sites are obsolete but the same type of protection is not afforded to the replacement, i.e., deep drill holes.

5. Extralateral rights are obsolete since dips are rarely followed at length down dip. Instead, protection of access by shafts and adits is needed.

6. The distinction between lodes and placer deposits and mill sites is confused and inapplicable to modern mining, but it remains critical to the validity of a claim or site.

7. Mill sites do not provide adequate work space or tailings space for modern mining methods.

8. Connecting access between discontinuous claims via adits is not possible under the present law.

9. The test of discovery of a valuable mineral deposit can be applied arbitrarily and unreasonably, without certainty.
10. Governmental withdrawals and Forest Service and BLM wilderness studies, have removed the great bulk of public lands from mineral access and location.

11. Government administration is bogged down in files over 100 years old without knowing in many cases its own ownership, mineral status, withdrawal areas, and so on. The multitude of studies and regs. for new programs required by FLPMA of 1976 are only slowly developing.

12. Tenure and security of title on the public lands are highly uncertain, for these and other reasons.

B. Since the first leasing law for leasing of lead mines from 1807 to 1846, and since the debates from 1900 to 1920 over adoption of the Mineral Leasing Act of 1920, leasing has been touted as the only cure. Leasing is supposed to give miners exploration areas and tenure, and to protect the public by requiring royalties, diligent exploration, diligent development and mining, with less environmental damage and more reclamation.


(a) The Secretary of the Interior has always declined to lease many lands and many types of minerals.

(b) The leasing act minerals are in shorter supply than locatable minerals.

2. Administrative leasing policies, where the government leases, have failed to lease economic mining units which has halted production. The western coal industry is an example of an industry stymied by government agency even though the current and last two presidents and a multitude of public institutions consistently announce great increases in coal production are necessary in the public interest.

3. Because of the failure of the leasing system, the GAO in 1979 recommended the retention of the location-patent system, albeit with changes to

C. The right of self-initiation of the miner under the location system to seek and extract minerals where they occur on the public lands is essential to survival of the nation as a leading world power.

1. The right of access and exploration may properly be made subject to environmental protection and careful reclamation. The mining industry can and will protect the land.

2. Congress has not abandoned the location system, for the foregoing reasons, for 108 years. Despite the constant cries that it do so, Congress will not soon make the nation more dependent for minerals upon hostile government agencies.

D. A resolution of the conflicts over the dual threats of major environmental and social harm, on the one hand, and crippling mineral shortages, on the other, is imperative for the national well being.
Proportion of U.S. Consumption Met by Imports

<table>
<thead>
<tr>
<th>Material</th>
<th>1971</th>
<th>1978</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diamonds</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Natural rubber</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Manganese</td>
<td>96%</td>
<td>98%</td>
</tr>
<tr>
<td>Cobalt</td>
<td>75%</td>
<td>97%</td>
</tr>
<tr>
<td>Bauxite</td>
<td>92%</td>
<td>93%</td>
</tr>
<tr>
<td>Chrome</td>
<td>89%</td>
<td>92%</td>
</tr>
<tr>
<td>Platinum</td>
<td>75%</td>
<td>91%</td>
</tr>
<tr>
<td>Asbestos</td>
<td>76%</td>
<td>84%</td>
</tr>
<tr>
<td>Tin</td>
<td>64%</td>
<td>81%</td>
</tr>
<tr>
<td>Nickel</td>
<td>66%</td>
<td>77%</td>
</tr>
<tr>
<td>Zinc</td>
<td>45%</td>
<td>62%</td>
</tr>
<tr>
<td>Potash</td>
<td>45%</td>
<td>61%</td>
</tr>
<tr>
<td>Mercury</td>
<td>42%</td>
<td>57%</td>
</tr>
<tr>
<td>Gold</td>
<td>48%</td>
<td>54%</td>
</tr>
<tr>
<td>Tungsten</td>
<td>1%</td>
<td>50%</td>
</tr>
<tr>
<td>Petroleum</td>
<td>25%</td>
<td>42%</td>
</tr>
<tr>
<td>Silver</td>
<td>34%</td>
<td>41%</td>
</tr>
<tr>
<td>Gypsum</td>
<td>38%</td>
<td>34%</td>
</tr>
<tr>
<td>Iron ore</td>
<td>27%</td>
<td>29%</td>
</tr>
<tr>
<td>Aluminum</td>
<td>2%</td>
<td>10%</td>
</tr>
<tr>
<td>Salt</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>Natural gas</td>
<td>4%</td>
<td>5%</td>
</tr>
</tbody>
</table>

...And at Skyrocketing Cost

Imports of raw and processed minerals and metals (including petroleum) increased by 10 billion dollars, or 45%, between 1971 and 1978.

U.S. NEWS & WORLD REPORT, Nov. 12, 1979