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In this article the authors examine the difficulties encountered by modern hardrock mineral explorers in locating and maintaining unpatented mining claims on the public domain, under the General Mining Law of 1872. The authors point out the tension between the requirements of the General Mining Law, on the one hand, and the economic and technological realities of hardrock mineral exploration, on the other. The article outlines practical solutions within the framework of court decisions construing the General Mining Law.

COPING WITH THE GENERAL MINING LAW OF 1872 IN THE 1980'S*

Rodney D. Knutson**

and

Hal G. Morris, Jr.***

This article addresses some of the practical problems which face the mineral locator on the public domain attempting to cope with circumstances which have changed radically since the enactment of the General Mining Law of 1872 under which he operates. In addition to “public interest” challenges and governmental resistance, today’s prospectors and miners must also live with a law which clearly did not contemplate modern exploration and mining technology. Difficulties are compounded for those attempting to acquire and maintain a large group or block of mining claims.
Our topic is limited to those minerals which are presently locatable under the General Mining Law of 1872, and the discussion assumes that actual on-the-ground activity is preceded by land status work which has confirmed that the ground to be claimed or acquired is actually open to location under the General Mining Law. Once this preliminary but critical determination is made, the locator must try to satisfy existing state and federal laws so he can give third parties both actual and constructive notice of his claims. During this process he must correctly identify the type of deposit he claims and make a sufficient “discovery” of valuable minerals within each claim in order to perfect his rights. In the first instance, a discovery is needed to entitle his claim to the ground to prevail over the claim of a subsequent locator, but ultimately a discovery is needed to make his claim good as against the paramount title of the United States and to entitle him to a mineral patent to the ground.

During the entire period of time before he finally is entitled to receive a mineral patent, the locator must vigilantly maintain his claim of ownership. Before discovery he might be able to rely on the limited protection afforded by the judicially created doctrine of *pedis possessio* when the adverse party is a rival claimant. After discovery he can rely on the performance of assessment work to maintain his claim, but, if more than a single claim was located, questions about “group” assessment work and the extent to which certain work actually benefits the claims are certain to arise.

**Location Problems**

The prospector fortunate enough to have made discoveries is at least in a position to evaluate his alternatives. Long before the discoveries are made, however, initial decisions are required in order to launch the exploration program. Once a target area is identified, claims must be located to give others notice of the prospector’s intentions.

*Lodes v. Placers*

The General Mining Law classifies locatable mineral
deposits into two categories, lode and placer, and creates distinct methods for the appropriation of each.\(^1\) A locator must first determine which classification applies to his target and then comply with the statutory requirements applicable to that category of deposit. The size of permissible locations and the location procedures (and ultimately the purchase price) differ depending upon whether the target is a lode or placer deposit.\(^2\) Other rights also vary according to the nature of the deposit: only lode claims have extralateral rights; and (subject to extralateral rights of other claimants) a valid placer location, unlike a valid lode location, does not necessarily appropriate all locatable minerals discovered within the limits of the claim.\(^3\) More importantly, since the General Mining Law defines as placer everything which is not a lode, the locator must choose between the classifications at his peril.\(^4\)

Lode deposits, as "defined" in the General Mining Law, occur in veins, lodes, or ledges; placer deposits are all deposits which do not occur in veins, lodes, or ledges. Generally, a placer is characterized as loose unconsolidated materials or particles which have migrated from their source or place of origin to the place where they are found. Lodes generally refer to mineral deposits which are found "in place", i.e., in the place of their source or origin. It is important to remember that the statutes defining lodes and placers were not drafted by geologists or scientists; they were based, as much as anything, on tradition and custom of the miners in the 1860's and 1870's.\(^5\) Moreover, it is increasingly

2. See 1 American Law of Mining §§ 5.9A-5.26A (1980) for a thorough discussion of these differences.
obvious that today's commercial mineral deposits occur in infinite varieties, and not just in the simple forms contemplated by the General Mining Law.

Other commentators have identified the following six criteria which the courts apply with varying degrees of emphasis when attempting to make the lode-versus-placer distinction: (1) Whether the area is generally considered by miners to be lode territory or placer territory; (2) Whether conventional lode or placer mining methods are well-adapted to extracting the minerals involved; (3) The character of the surrounding country rock; (4) The character or substance of the mineral body; (5) The existence of a reasonable definition or boundary between the mineralized zone and the surrounding country rock; and (6) The size of the mineralized body and the depth at which it is found.

These criteria have been examined at length elsewhere, and it would serve no purpose here to reiterate that discussion. Nevertheless, some of these criteria remain difficult to apply in cases involving blocks of mining claims covering large, low-grade mineral deposits.

One potential problem concerns the so-called "deep placer" deposit, a term that refers to subterranean channels of ancient streams within which beds of auriferous gravels have been deposited. California courts have taken the view that such deposits are placers, reasoning that a lode does not include a bed of gravel in a channel of an ancient stream from which gold might be extracted by washing, even though the ancient stream bed might now be buried. Nevada courts, however, have held such a deposit to be "in place". Early decisions of the Land Department agreed with the California placer classification. Lindley, however, criticized this determination since discovery requirements for placer locations

6. Sherwood and Greer, supra note 4, at 32.
8. 2 Lindley on Mines § 427 (3d Ed. 1914).
11. 2 Lindley on Mines § 427 (3d Ed. 1914).
are not compatible with the classification as placers of mineral deposits in which discovery may only be accomplished by drilling from the surface or drifting in a channel.\textsuperscript{12}

The size of the mineralized body and the depth at which it is found is today a particularly troublesome criterion. Generally, the deeper the ore body, the more likely it is to be classified as a lode. Size of the deposit, however, may compel a different result. For example, the extensive size of a gypsum deposit covering five square miles was an important criterion in holding that the deposit should be classified as a placer.\textsuperscript{13} In another case, where the exterior boundaries of the area contested by lode and placer claimants covered almost ten square miles, the size of the mineralized zone was an important factor in classifying that deposit as a placer.\textsuperscript{14} On the other hand, ten contiguous claims covering a horizontal sandstone bed in which uranium was found were properly located as lode claims, even though the deposit was alleged by the placer claimant to be formless and without definite boundaries.\textsuperscript{15}

In the two cases above in which placer locations were determined to be proper because of the large size of the ore deposit, the courts also relied heavily upon the discontinuity of mineralization within the purported lodes. It did not appear that a continuous body of ore existed or that the deposits were sufficiently distinguishable from surrounding country rock to justify lode locations. Another factor of some importance was that senior locators prevailed in both cases upon the basis of reasonable, good faith determinations concerning the deposits in question.

Of course, it is possible to make both placer and lode locations in an attempt to be absolutely safe in doubtful cases, but such equivocation can generate needless expense and cause its own complications.\textsuperscript{16} Because of these compli-

\textsuperscript{12} Id.
\textsuperscript{14} Titanium Actynite Industries v. McLennan, 272 F.2d 667 (10th Cir. 1959).
\textsuperscript{16} The sequence of locating overlapping placer and lode locations is critical: the placers must be located first. See Hill, supra note 7, at 395-96, and the discussion of "Lodes in Placers," infra at note 18.
cations, one commentator suggests it would seem best to revise the statutory scheme to provide for a single type of location for locatable minerals. Until such statutory revision is enacted, however, the strongest showing to support the validity of a lode location can be made upon a record which reads as follows: The target area, and areas not too dissimilar, are generally considered by miners as lode territory; placer methods are not well adapted to extracting the mineral because of the depth of the ore body and the hardness of surrounding rock; the surrounding rock firmly embraces the mineral-bearing rock; the mineral-bearing rock has length, width, depth, is capable of measurement, and occupies a defined space; the zone of contact between the mineral-bearing rock and country rock is reasonably defined; and the size of the ore body is not so great as to cast doubt upon its continuity or its identity as distinct from surrounding country rock.

**Lodes in Placers**

As discussed above, the rights which attach to valid lode and placer locations are different. Consequently, lode claims may be located within placer claims under certain circumstances.

The provision of the General Mining Law which permits known lodes to be located within placer claims has no application to valid lode claims located prior to placer locations. The ground embraced by a valid lode location is not subject to contrary disposition by the United States.

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17. See Twitty, supra note 7, at 82.

18. See 30 U.S.C. § 37 (1976), which states: "Where the same person, association, or corporation is in possession of a placer claim, and also a vein or lode included within the boundaries thereof, application shall be made for a patent for the placer claim, with the statement that it includes such vein or lode, and in such case a patent shall issue for the placer claim . . . including such vein or lode, upon the payment of $5 per acre for such vein or lode claim, and 25 feet of surface on each side thereof . . . [a]nd where a vein or lode, such as is described in Section 23 of this title, is known to exist within the boundaries of a placer claim, an application for a patent for such placer claim which does not include an application for the vein or lode claim shall be construed as a conclusive declaration that the claimant of the placer claim has no right of possession of the vein or lode claim; but where the existence of a vein or lode in a placer claim is not known, a patent for the placer claim shall convey all valuable mineral and other deposits within the boundaries thereof."

locators are granted, in 30 U.S.C. § 26 (1976), the right of exclusive possession and enjoyment of all the surface included within the boundaries of their locations. No subsequent locator, whether the discoverer of a lode or placer claim, may invade that surface area except to mark boundaries so as to define extralateral rights.

Surface rights acquired by a placer location, however, are subject to different rules. If a lode is "known to exist" within a placer location, the "known" lode may be located either before or after the placer claim is located. If a valid lode location antedates a placer location which embraces the same ground, the lode location effectively appropriates the ground and the subsequent placer locator acquires no rights therein. If, however, the lode is located subsequent to a valid placer location, 30 U.S.C. § 37 (1976) governs the rights of the competing locators. Under this statute, a senior perfected placer location does not confer rights to the possession of lodes found to exist within that claim at any time prior to the filing of an application for the placer patent. A placer location does not effectively appropriate all the ground located because the placer claimant obtains no title to known lodes within his placer location simply by virtue of a placer appropriation.\(^{20}\) Any lode known to exist within a placer location prior to the date the placer patent is applied for must be separately claimed. Only the discoverer of a lode may make any claim thereto, but such lodes may be appropriated by either the placer claimant or by others. If not claimed by the placer claimant, title to a lode "known to exist" will not pass by virtue of a placer patent since known lodes within placers remain the property of the United States, subject to disposition under the mining laws. Therefore, when it is necessary to locate both placer and lode claims in doubtful cases, it is imperative that the placers be located first; otherwise the senior lode claims may be deemed abandoned.\(^{21}\)

If a vein or lode has been properly located and its

20. LINDLEY ON MINES § 413 (3d Ed. 1914).
21. HILL, supra note 7, at 395-96.
boundaries specifically marked on the surface so as to be readily traced and notice of the location is properly recorded, that lode is "known to exist" under 30 U.S.C. § 37 (1976). Such location must, however, be predicated on a discovery of rock in place containing valuable mineral deposits. Knowledge of the existence of a lode is not presumed from mere production of a recorded location notice which pre-dates application for the placer patent. Furthermore, the discovery point on the lode must also lie within the boundary of the placer to prove that such vein or lode does exist.

The most difficult problem in this area is presented when the lode is located subsequent to the placer patent application upon the basis that the lode was known to exist at the date the placer patent application was filed. The lode need not have been located to be "known to exist." The lode must, however, contain demonstrable mineral of such extent and value as to justify expenditures for the purpose of extracting it. The burden of proving the existence of a "known lode" rests with the lode claimant and must be proven by clear and convincing evidence. Work done on a lode subsequent to the date of the placer patent application is not admissible to demonstrate that the lode was "known" prior to the patent application.

If the lode is not known to exist until the placer location is completed and validated by a discovery, an entry upon the unpatented placer claim by a prospective lode claimant seeking to discover such an unknown lode is a trespass, unless made with the express consent of the placer claimant. If the lode claimant attempts to initiate his right to a lode and does so in trespass, no rights are acquired by his action. If, on the other hand, the lode is known to exist prior to the

22. 3 Lindley on Mines § 781 (3d Ed. 1914).
23. Id.
24. United States v. Iron and Silver Mining Co., 128 U.S. 673, 683 (1888), approved in Chrisman v. Miller, 197 U.S. 313, 321 (1905); see also Iron and Silver Mining Co. v. Mike and Starr Gold and Silver Mining Co., 143 U.S. 394 (1892); and McConaghy v. Doyle, 32 Colo. 92, 75 P. 419 (1903).
25. E.g., Thomas v. South Butte Mining Company, 211 Fed. 105 (9th Cir. 1914).
placer location, but the lode has not been acquired by anyone, then the placer claimant must affirmatively locate that lode. Otherwise, under 30 U.S.C. § 37 (1976), the placer claimant evidences his intent not to claim the known lode and a third party peaceably entering upon the placer location in order to claim that known lode should not be viewed as a trespasser. Such a lode claim would, however, be limited in width to twenty-five feet on either side of the vein. Of course, if the placer location is not supported by a discovery, a subsequent lode claimant searching for unknown lodes could acquire such lodes under a full-sized location, assuming the *pedis possessio* rights of the prior placer claimant were not violated by such acquisition.

**Association Placer Claims**

Section 35 of Title 30, U.S.C., provides that placer claims are subject to entry and patent under the same general rules which apply to lode claims, but where the lands upon which placer claims are located have been previously surveyed, the entries shall conform to the legal subdivisions of the public lands. No placer location shall include more than 20 acres for each individual claimant, and 30 U.S.C. § 36 states that no location of a placer claim shall exceed 160 acres for any one person or association of persons. Many miners wish to take advantage of these two provisions, collectively permitting 160-acre association placer claims by eight bona fide locators, since a single discovery will support an association placer just as it will support a twenty-acre individual placer; surveying and recording costs are greatly reduced; and one hundred dollars of assessment work will serve to hold a 160-acre claim just as it will maintain a single twenty-acre placer. Nevertheless, association placers inevitably lead to problems, usually because it is difficult to satisfy the requirement that the location be made by a bona fide association.²₈

The two most significant problems which usually arise in connection with association placers are commonly referred...
to as the "excess acreage problem" and the "dummy locator problem," two concepts that are often confused. The excess acreage problem occurs when the association placer is located by a bona fide association, but one or more of the locators transfers his interest prior to discovery. If this interest is transferred to another person within the association, the twenty-acre individual acreage limitation is exceeded. Violation of the excess acreage rule does not result in invalidity of the entire claim, but requires an amended location to delete the excess acreage. Otherwise, a subsequent discovery will not support the entire 160 acres and the claim may be lost to a subsequent claimant. If the entire 160 acres is transferred to an individual or corporation which later makes a discovery, only the twenty acres surrounding the discovery point are valid.  

Corporations, particularly, are cautioned not to exceed the twenty-acre limitation. Only in very special circumstances may a corporation acquire by conveyance or otherwise hold association placer claims. If a corporation acquires an association placer, it must take care that each locator receives equal consideration for the transfer and that the location is supported by a discovery prior to the transfer. Otherwise, an excess acreage problem is presented, one which perhaps is best resolved by making new locations for each twenty acre portion of the claim.

The dummy locator problem is a fraud against the United States and invalidates the claim entirely. In this situation the association of claimants is not "bona fide"; instead, a claimant attempts to avoid the individual twenty-acre per claim per claimant limitation. Thus, anywhere from one to seven of the individuals will agree to have the claim located in their names and then transfer their interests to one or another of the locators. Any such intent, if formulated prior to making the location or prior to making a discovery, will result in invalidation of the entire claim.

30. Hill, supra note 7, at 411-16.
31. Id.
After discovery, the locators may transfer their interests as they see fit, but only if the claim was originally located in good faith, i.e., with no intent to circumvent the twenty-acre limitation. 38

The Practice of “Short Staking” Lode Mining Claims

Most miners and geologists are aware of instances where lode claims exceeding 1500 feet in length or 600 feet in width have been staked on the ground. Such survey errors can leave “fractions” or small parcels of land lying outside the boundaries of any valid claim, and this unappropriated land is open to location by third parties. This fact is recognized by most locators, and attempts are made to avoid this result. The goal of avoiding open fractions is a laudable one, but, unfortunately for the locator, the common methods of trying to achieve that goal often either fail or create even more problems.

There are ways of avoiding the problems that may result from slightly inaccurate surveys; however, many individuals who stake mining claims in the field have adopted (perhaps even without the knowledge of the companies for whom they are working) what we will refer to as “short staking”: the practice of actually measuring shorter distances on the ground than are recited in the location certificate or shown on the map. The amount of understaking usually depends on the maximum likely survey error.

Thus, where the mining claimant is locating claims on level ground at a relatively constant elevation, he may anticipate a maximum survey error of ten feet per claim. To avoid leaving open ground, some claimants purposely attempt to place the sideline posts 1490 feet apart to provide a margin for error; however, in keeping with the “tradition” of locating full size claims, the locator usually recites in the location certificate that the posts are 1500 feet apart. The objective is to obtain an added ten foot “cushion” to rely upon if a subsequent survey demonstrates that the initial survey was as much as ten feet in error. At best, this practice guarantees...
the necessity of later amending the location certificate to show the correct dimensions of the claim before a mineral survey can be approved. In the worst cases, this practice may make it impossible to resurvey this and other claims with common corners accurately, may suggest the claim is in the wrong quarter section, or may even require a later admission by the claimant that he knowingly recorded an incorrect map or certificate with the county recorder or Bureau of Land Management.

The extent of the problem becomes more apparent when the example of the practice of staking 590 feet endlines (and reporting them to be 600 feet in length) is considered. It requires nine "full size" (600 by 1500 feet) unpatented lode mining claims staked side by side to extend along a section line (the endlines of nine claims equal 5,400 feet and an ideal section line is 5,280 feet long). However, as staked on the ground, the actual endlines of nine claims that were short staked by ten feet per claim equals only 5,310 feet. The cumulative effect of this 88 foot per mile error in the legal description, particularly when a locator stakes a block of mining claims that extends over more than one section, can result in a legal description (by reference to the quarter section in which the claim is located) that the surveyor knows is incorrect. 34 As described on the official record (the location certificate), a claim may be shown to lie in the southern portion of Section eight when in fact the surveyor knows that at least a portion (and perhaps all) of the claim is in the northern portion of Section seventeen. In instances such as these, the legal descriptions in location certificates and on maps—which might be drafted to show the correct claim dimensions—simply cannot be reconciled.

34. See 18 U.S.C. § 1001 (provides criminal penalties for "knowingly and willfully" making or using any "false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry" in any matter within the jurisdiction of any department or agency of the United States). The Secretary of Interior has forwarded a draft bill to the Speaker of the House to amend Section 314 of FLPMA to make this penalty provision expressly applicable to materials now required by FLPMA to be filed with the BLM; cf, Colo. REV. STAT. (1973) § 18-5-114 (requires an intent to defraud); but see, Cal. [Pub.Res.] Code § 2313 (West 1972) (requires only "willfully" making a false statement). See also Zwiefel v. State FLPMA, 93 Nev. 264, 571 P.2d 106 (1977).
Problems are a virtual certainty when significant vertical slope corrections should be made but inclinometers are not used. Then, a claimant using only a chain (but no plumb bob) for measuring distances might anticipate much larger errors and short stake claims by 50 or 100 feet. If 500 foot by 1400 foot claims are staked (and the location certificates recite that the claims are 600 foot by 1500 foot claims), the short endlines necessitate staking eleven claims to cover one section line—and a map prepared by reference to the location certificates places two entire claims in the wrong quarter section.

In addition to the problems resulting from a legal description referring to an incorrect quarter section, indiscriminate short staking may appear to place even valid discoveries on land that is apparently not open to location. Because a valid discovery cannot be made on land not open to location, the location too must fail. It is common to establish discovery monuments on the endline of a claim or ten feet from one endline. In such instances, when a mining claimant stakes claims on the open sections in a checkerboard land pattern (as is necessary in the vicinity of a railroad grant), the ten foot short staking in the length of the sideline can result in a claim pattern that, when mapped according to the description recited in the location certificates, places the “discoveries” on land not open to location.

There are, of course, several possible ways to locate groups of lode mining claims to avoid such problems. One solution is to rely on two general rules: monuments on the ground control when in conflict with recorded legal descriptions; and, there can be no fractions if the amount of the ground claimed does not exceed the maximum dimensions permitted by statute. A locator would thus survey claim boundaries on the ground that are 1490 feet in length by 590 feet in width (i.e., that account for the maximum anticipated error), recite that fact in the location certificate, and properly identify monuments on the map. (When survey

36. 1 Lindley on Mines § 338 (1897); 1 American Law of Mining § 4.35 (1980).
errors might be as great as twenty-five feet in a 1500 foot run, the claimant could locate claims 1475 feet in length by 590 feet in width.) Then, if a survey error (of up to the allowed variance) did occur—the claimant could rely on the monuments on the ground to establish the limits of the claim and file an amended location certificate to correct the record. In this instance, the incorrect measurement is not fatal because the monuments on the ground control—assuming that they have been maintained so that their original situs can be ascertained. Monuments on the ground control, even as to patented claims, where there is a conflict between the monument and the description or call in the patent. Where monuments are not maintained, a misdescription in the record may be fatal because, in general, to correct errors in courses and distances, the monuments must be found.

**PREDISCOVERY RIGHTS**

After mining claims have been staked, some locators apparently believe the land is theirs, and that all that is left to be done is to return to the field as the weather permits (and the budget for drilling operations allows), perform assessment work, then drill out an ore body and open a mine. Nothing could be further from the truth. The existence of rival locators should not be ignored; if the locator stays away too long, any mine that is opened might not be his.

Prior to the discovery of a valuable mineral within the

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37. Monuments for unpatented mining claims should be maintained as a routine matter. If mining claimants maintained their monuments, junior locators would have *actual*, not just *constructive*, notice of the senior locator's claim, and many problems would be minimized. Ordinary prudence will suggest to the locator the advisability of preserving his marks, but the law does not require it. Therefore, it has been held, that where all other necessary acts of location are performed, a right vests in the locator, which cannot be divested by the subsequent obliteration of the marks or removal of the stakes without the fault of the locator. *1 Lindley on Mines* § 375 (1897), citations omitted. *See also*, *1 W. Snyder, Mines and Mining* § 399 (1902). Actual notice of a senior locator's claim, which can more easily be given if the senior locator's monuments are maintained, will overcome many "minor" deficiencies. *See Rasmussen Drilling, Inc. v. Kerr-McGee Nuclear Corporation*, 571 F.2d 1144 (10th Cir. 1978), *reh. denied* (location notices identified the wrong section), and *Globe Min. Co. v. Anderson*, 78 Wyo. 17, 318 P.2d 373 (1957).


limits of a mining claim, the locator establishes no rights against the federal government, but he may be protected in his possession of the claim against third parties by the judicially-created doctrine of pedis possessio. Modern prospectors, however, desire title security that will make it possible to systematically explore a substantial area of the public domain for mineral deposits which are often low-grade and buried at great depth. These deposits offer few, if any, surface indications, and a considerable search (often over a very large target area) is required before hoped-for discoveries can possibly be made. To keep pace with the evolution of exploration techniques, commentators have urged that presdiscovery protections be extended to encompass entire target areas under exploration. This notion received some degree of acceptance in the courts during the 1970's, and considerable confusion has resulted. Until the 1971 decision in MacGuire v. Sturgis, the traditional protection afforded by pedis possessio extended only to the ground occupied by a prospector or, at most, to the boundaries of each claim occupied and worked by a locator. The present confusion surrounds application of the doctrine of pedis possessio to a large group or block of mining claims.

The "Traditional" View of Pedis Possessio

A prospector earns the protection of pedis possessio before making a discovery by actual occupation of the public domain while engaged in the active pursuit and diligent search for a valuable mineral deposit. During this period of activity, the prospector is, as against the government, a mere tenant at will, but this tenancy is accorded protection against forcible, fraudulent, or clandestine intrusions upon


possession by third parties seeking to make rival locations.\textsuperscript{43} If either occupancy or diligent work toward discovery is slackened, protection against rival locators is lost; the prospector's possessory rights may then be superseded by the entry of a third party.

Traditionally,\textsuperscript{44} \textit{pedis possessio} has required actual and continuous (as opposed to constructive) possession.\textsuperscript{45} What constitutes actual possession will, of course, vary depending upon the facts of each case.\textsuperscript{46} While a prospector goes about the diligent search for a valuable mineral, \textit{pedis possessio} also requires vigilance to prevent others from entering the ground being explored, since his possession must be exclusive.\textsuperscript{47} Too often, however, prospectors assume that exclusive possession alone will preserve their prediscovery rights.

Possession alone is quite insufficient to establish \textit{pedis possessio}, for the possession required is not merely that which denies entry to competitors, but that which is necessary for work directed toward discovery of a valuable mineral.\textsuperscript{48} Under the traditional cases, work toward discovery must actually and continuously be performed on the claim occupied to entitle the locator to the protection of \textit{pedis possessio} with respect to that claim. If no work is performed on a claim, it is open to peaceable entry and appropriation by rival locators.

Because it may be a factual and economic impossibility to work and occupy each and every claim within a large

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\textsuperscript{43} E.g., Cole v. Ralph, 252 U.S. 286, 294-295 (1920); and Union Oil Co. of Cal. v. Smith, 249 U.S. 337 (1919). The protection afforded by \textit{pedis possessio} is, however, available only for a "reasonable time", although no reported case has been found in which the tenure of occupancy was at issue. Fiske, supra note 40, at 190-97.

\textsuperscript{44} By "traditionally," we mean the law as interpreted by the courts from 1872-1971.


\textsuperscript{46} See Fiske, supra note 40, at 192-93, and cases cited in notes 34 and 35 thereof, as well as Garrard v. Silver Peak Mines, 82 Fed. 578, 591 (C.C.D. Nev. 1897).

\textsuperscript{47} See Fiske, supra note 40, at 196-97.

\textsuperscript{48} Fiske, supra note 40, at 193-96, and cases cited therein. See also, Ohio Oil Co. v. Kissinger, 60 L.D. 342 (1949); United States v. Ruddock, 52 L.D. 313 (1927); Isaac P. Clark, 48 L.D. 630 (1922); and L. W. Lowell, 40 L.D. 333 (1911), for the Interior Department's view of what then constituted "diligent prosecution of work" toward discovery on oil shale placer claims.
group, these legal standards render it virtually impossible to acquire *pedis possessio* rights sufficient to protect an entire block or group of mining claims prior to discovery. Thus, the ground covered by a large group of claims is most vulnerable to intrusions by rival locators.

**The Bad Faith Defense**

The risks of failing to comply with the strict traditional requirements for *pedis possessio* are ameliorated somewhat by recent developments concerning the so-called "bad faith" defense. All too often, prospectors (or their lawyers) tend to rely on this defense as a substitute for the work required to achieve and maintain *pedis possessio*. This has resulted in some unfortunate language in the case law which, in turn, promotes such misplaced reliance. As a result, it may be simpler, less expensive, and less venturesome to marshal arguments attainting the intruder's motive than to comply with the requirements for *pedis possessio*. An assumed added advantage is that the focus shifts from the prospector's activities (or lack thereof) to those of the intruder. Nevertheless, one should not overemphasize these recent developments for they seem to be based upon a misapprehension of governing legal principles.

Whether the subsequent entry or intrusion by a third party on the prediscovery possession of a prospector is in bad faith or not depends upon the entrant's intent as demonstrated by (or divined from) his conduct. The confusing aspect of some of the bad faith defense cases arises from language, quite comforting to the owners of large groups of claims, which implies or states that a rival entry or intrusion is in bad faith if made with knowledge of the existence of the first prospector's prior claim to the ground.


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Two fairly recent cases, Ranchers Exploration and Development Co. v. The Anaconda Company and Columbia Standard Corp. v. Ranchers Exploration & Development, Inc., illustrate the present confusion in this area. Attempts by junior locators in both cases to locate claims, as a result of the senior locators' failure to achieve or maintain pedis possessio protection, were defeated because bad faith was attributed to the intruders.

In the first of these cases, Ranchers questioned Anaconda's occupancy of, and work upon, certain lode locations within a block of claims blanketing an area in excess of five square miles. With respect to the disputed claims upon which Anaconda could not prove discoveries, the court ruled that Anaconda was neither in actual occupancy nor diligently working to make discoveries. Nevertheless, the court refused to enjoin Anaconda from preventing locations by Ranchers, relying upon "the inherent limitation of the mining law," which extends an invitation to appropriate portions of the public domain only to those seeking to do so in good faith. The general legal proposition advanced by the court to govern its factual analysis of Ranchers' bad faith is that one cannot take unfair advantage of a competitor, e.g., by improving one's position in an unconscionable manner at the expense of another:

[B]elief in the efficacy of legal technicality is not the only inquiry on the question of good faith. Good faith also necessarily involves an honest intention to abstain from taking any unconscionable advantage of another even through the forms or technicalities of law. Knowledge of an adverse claim does

55. The bad faith here was attributed to Ranchers from the conduct of one Ford, who, inter alia, orchestrated the attempted relocations for Ranchers (utilizing information obtained while in the employ of one of Anaconda's predecessors in title and in purported negotiations with the owner which eventually leased the claims to Anaconda) on lands which Ford believed to contain mineralization not yet exposed by Anaconda. Ranchers Exploration and Development Co. v. The Anaconda Co., supra note 52, at 729-31.
not of itself indicate bad faith and may not even be evidence of it unless accompanied by some improper means to defeat such claim. 56

This statement, and in particular the portion emphasized, represents what ought to be the single limitation on those seeking to relocate claims which a senior locator is not entitled to hold under pedis possessio: If the senior appropriator sleeps on, and thus forfeits, his pedis possessio rights, there is no reason why a subsequent entrant should be penalized unless he seeks to deepen that repose by improper means or induces it in the first place.

Regrettably, the Tenth Circuit refused to take such a sensible approach in Columbia Standard Corp. v. Ranchers Exploration & Development, Inc., 57 which is fraught with potential mischief and confusion. Staking of 157 lode mining claims by Columbia over an area previously staked by Ranchers was held to be in bad faith. Columbia examined relevant land records and thus was aware of Ranchers' prior claims and the affidavits of annual labor filed by Ranchers, but Columbia alleged that there were defects in Ranchers' location certificates and affidavits with respect to the performance of validation work. At no time did Columbia inquire of anyone about Ranchers' activities or examine Ranchers' claims individually for signs of such activity. The court found bad faith on these cumulative facts. As a result, junior locators now have an apparent legal duty to inquire into the extent of work previously performed on the claims they hope to jump, which duty cannot be fulfilled absent an actual, physical, claim-by-claim inspection. 58 This duty exists even if the junior locator is met by no resistance.

To reach this result, the Tenth Circuit may have misapplied existing mining law principles and thereby created a doctrine which is potentially far more protective of pre-discovery rights than pedis possessio. Generic legal principles

56. Ranchers Exploration and Development Co., v. The Anaconda Co., supra note 52, at 731. [Emphasis supplied; footnotes deleted.]
applicable in more typical situations confronting the courts, but which have refined counterparts in the mining law, were applied wholesale to a claim jumping situation. No heed was paid to the historical basis of the mining law concerning claim jumping. Consequently, the concept of good faith and title standards developed with reference to other types of property interests replaced their refined mining law counterparts. A continued failure on the part of the courts to apply mining law principles to these types of controversies may result in an evisceration of the doctrine of pedis possessio.

First, Columbia Standard misapplies the general notion that, in title disputes, one must rely on the strength of his own title rather than defects in the title of the person he seeks to dispossess. In a pedis possessio context, this should only require a showing that the junior locator properly located his claims in good faith under the General Mining Law. At that point, the junior locator should then be allowed to demonstrate that the senior locator failed to maintain possession as required under the doctrine of pedis possessio.

"Good faith," as it applies to a locator under the mining laws, depends upon whether the locator claims the ground for mining purposes.59 "Good faith" under Columbia Standard, however, depends upon notice and inquiry. This misapplication of legal principles renders all recorded mining locations presumptively valid, which, even if correct, is nevertheless, only a presumption which the junior locator should be allowed to overcome. Admittedly, the court gave lip service to this right,60 but its analysis effectively rendered that right an empty one. The validity of Ranchers' claims never became an issue. Nevertheless, the question should have been who had a better right to the ground, unless Ranchers could have shown that Columbia took unfair ad-

59. Belk v. Meagher, 104 U.S. 279 (1881); United States v. Noguiera, 403 F.2d 816 (9th Cir. 1968). See also the criticism of Columbia Standard at 1 AMERICAN LAW OF MINING § 5.96. It should be emphasized, however, that "good faith" for purposes of making a relocation, as in Belk or Columbia Standard, must be distinguished from "good faith" in other endeavors, such as the performance of annual assessment work. See Sherwood, Improvement of Mining Claims," 18 ROCKY MTN. MIN. L. INST. 149, 177-88 (1972).

vantage of some pre-existing relationship or bore some responsibility for the defects in Ranchers’ claims it sought to exploit.\(^{61}\)

Since Columbia was never allowed to show that Ranchers was not in possession, its entire case was lost. If Ranchers was not in possession, the mining laws provided it with no protection against forcible, fraudulent, clandestine or surreptitious entries. Only after it is determined that a senior locator failed to meet the requirements of *pedis possessio* is the concept of good faith, as developed under other legal doctrines, relevant. The aim of the mining laws is to encourage development and reward those who act; thus, a location made in good faith under the mining laws, for mining purposes, should only be set aside in favor of a senior locator (not entitled to rights afforded by the doctrine of *pedis possessio* and not in possession of a valid claim) if the junior locator acted in bad faith toward the senior locator by taking advantage of a preexisting legal relationship or misleading information.

Perhaps the confusion in this area could be cleared up with a change of terminology which differentiates between good faith required under the mining law and good faith required toward a competitor. Usage of terms like breach of fiduciary duty and fraud would be more apt, and less confusing, than an indiscriminate application of the terms good faith and bad faith to describe the limited duty owed by a junior locator to a senior locator that fails to adequately protect his possessory rights prior to discovery. The good faith required of a junior locator would then properly be that which is required under the mining laws. Equitable doctrines of general applicability would come into play only after the mining law question of possession is settled; the proper remedy for inequitable conduct on the part of a

\(^{61}\) It is quite possible that the result in Columbia was proper, based upon this analysis, but the court placed little emphasis on the fact that a Columbia employee (instrumental in the overstaking venture) was well-acquainted with Ranchers’ claims and activities. Through a previous employment relationship, this Columbia employee participated in negotiations with Ranchers regarding the validity of the very claims Columbia overstaked. Columbia Standard Corp. v. Ranchers Exploration & Development, Inc., *supra* note 53, at 548.
junior locator prevailing under the mining law would then be imposition of a constructive trust on the claims.

Expansion of the Protection Afforded by Pedis Possessio

The first real breakthrough for the proponents of expanding the doctrine of pedis possessio so that it might apply on a group or area basis to a significant number of unpatented mining claims was achieved in MacGuire v. Sturgis.62 This decision upheld the possessory right of MacGuire to almost 1,800 unpatented lode mining claims, prior to discovery on any of them, based upon the inception of a drilling program on a few of the claims pursuant to a comprehensive exploration program designed to systematically explore all the claims. The entire holding is summed up in the following conclusion of law:

8. Plaintiff’s entry onto the land covered by the MacGuire claims was peaceable and not fraudulent [sic] or clandestine, and Plaintiff is presently entitled to the exclusive possession thereof 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 Wyo. Stat. § 30-6 (1957) 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. Plaintiff is entitled to the future exclusive possession thereof so long as he, or his successors in title, remain in possession thereof, working diligently towards a discovery.63

This holding obviously borrows much from the concept of group assessment work and is the ultimate extension of the

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63. Id. at 584-85.
doctrine of *pedis possessio* from a single claim to a reason-
able number of claims grouped together. Moreover, it very
clearly reflects current practices in mineral exploration.\textsuperscript{64} 
It is, however, a substantial departure from prior law and, 
when put to its most recent test, was expressly rejected in 
the *Geomet* case.

**The Geomet Case**

The reported facts of the *Geomet* case\textsuperscript{65} are fairly 
straightforward. Lucky Mc Uranium Corporation (ironically 
referred to by the court as “Lucky”), the senior locator, 
discovered anomalies indicative of the presence of uranium 
by airborne reconnaissance during the late summer of 1976. 
Shortly thereafter, after further investigation, Lucky located 
200 lode mining claims. Barely one month later, Geomet 
(after its own “extensive” reconnaissance) began drilling 
on one of the Lucky claims and promptly located seven claims 
in conflict with the Lucky claims. It was not disputed that 
Geomet was aware of the Lucky claims, but Geomet argued 
that Lucky had made no discovery; therefore, if Lucky was 
not in possession, the land was open to location by Geomet. 
The trial court found that neither party had made a 
discovery, and the court of appeals agreed. The question then 
became whether Lucky was entitled to retain exclusive pos-
session against Geomet by virtue of *pedis possessio*.

\textsuperscript{64} It must be admitted that this was the perfect factual situation for the 
plaintiff to convince the court to issue a landmark ruling. Frankly, the 
work and effort of defendant Sturgis, as characterized by the court, was 
shoddy at best. By contrast, the work of MacGuire in locating, staking, 
monumenting, and recording almost 1,800 claims, and then validating each 
one of them with the required discovery work, can only be described as 
impeccable. This may be the reason that the court imposed the requirement 
in subparagraph (b) of its holding, quoted above, that the validation work 
required by the Wyoming Statutes must be completed before *pedis possessio* 
can be applied on a group basis. This portion of the holding is anomalous, 
and we can perceive no rational reason to require that all of the acts of 
location (except, of course, discovery itself) be completed before a pros-
pector is entitled to the protection of *pedis possessio*. Where, however, a 
locator attempts to apply the doctrine to a large area of claims, many of 
which are not actually occupied, it does make sense that he be required to 
locate his claims properly and to do the required work on the ground to 
provide some evidence to all who may be interested in the same ground 
that he is indeed serious about maintaining and pursuing his rights on a 
group basis.

\textsuperscript{65} Geomet Exploration, Ltd. v. Lucky Mc Uranium Corp., 124 Ariz. 60, 601 
Ct. 1979), cert. granted, 48 U.S.L.W. 3813, 3814 (1980), cert. dismissed, 49 
The Arizona Court of Appeals found that Lucky was in actual physical occupancy of the claims since Lucky properly noticed, posted, recorded, and then validated by drilling, each of its claims pursuant to Arizona law. Moreover, Lucky was in the process of drilling deep exploration holes on other claims in the group, and Geomet was aware of this fact. Further, the court of appeals concluded without discussion that the geology of the area claimed was similar and the size of the area was reasonable. Geomet urged that a traditional application of the doctrine of *pedis possessio* was called for and that it should prevail since Lucky was not in actual physical possession of the seven disputed claims. This contention was dismissed with reliance on *MacGuire v. Sturgis*. Moreover, in response to Geomet's argument that it entered openly and peacefully, thereby preventing Lucky from invoking *pedis possessio*, the court stated that "It is our opinion that a peaceful and open intrusion is just as damaging to one's pre-discovery rights as a violent or surreptitious intrusion."66

The Arizona Supreme Court reversed.67 Its opinion begins by noting that compliance with statutory requisites for location is virtually meaningless prior to actual discovery of minerals in place. The court then follows this correct conclusion by stating that *pedis possessio* literally requires *actual* occupancy as distinguished from constructive possession. After a brief review of previous authorities, the court made the following observation in response to Lucky's reliance on *MacGuire*:

If one may, by complying with preliminary formalities of posting and recording notices, secure for himself exclusive possession of a large area upon only a small portion of which he is actually working, then he may, at his leisure, explore the entire area and exclude all others who stand ready to peaceably and openly enter unoccupied sections for the purpose of discovering minerals. Such a premise is laden with extreme difficulties of determining

66. Id. at 601 P.2d 1339, 1347.
67. Id. at 1339.
over how large an area and for how long one might be permitted to exclude others.\textsuperscript{68}

Accordingly, the court expressly held that \textit{pedis possessio} protects only claims actually occupied for the purpose of work that is directed toward discovery, and does not extend to contiguous, \textit{unoccupied} claims on a group or area basis.

The United States Supreme Court, as urged by the Justice Department, granted \textit{certiorari} to review the Arizona Supreme Court decision, but the writ was dismissed shortly thereafter at the request of the parties. As a result, \textit{pedis possessio} controversies may now turn on the choice of forum. Federal courts have been the only ones to recognize broad prediscovery rights; state courts do not seem to have such an inclination to reshape the law, although it must be admitted that few such opportunities have been presented to them in recent years. To protect themselves, locators of large blocks of mining claims are best advised to make the most of what the traditional view of \textit{pedis possessio} provides.

The obvious but difficult solution is to make a discovery on each claim. Under the liberal rule of discovery which applies in controversies between rival locators, it may be possible to expose mineralization on a large number of claims without a great deal of cost. This is particularly true when prospecting in formerly active areas, even if the mineral now sought is not the one previously mined in the area. Where this is possible, as in the old gold and silver camps, the additional costs will be justified as a sort of title insurance. For example, a sampling of rock in place could be taken from each claim and then assayed. If evidence of mineralization can thus be established, there may well be a discovery sufficient to meet the liberal test of \textit{Castle v. Womble}.\textsuperscript{69} At that point, proper performance of annual assessment work should suffice to hold the claims on which such discoveries have been made as against rival locators. Where this is not possible, the best practice is to stay in the field whenever weather permits, drill fast, and patrol the premises.

\textsuperscript{68} Id. at 1342.
\textsuperscript{69} 19 L. D. 455 (1894).
THE NECESSITY FOR DISCOVERY

The importance of making a discovery on each claim located or acquired by a mining claimant should not be underestimated. Discovery is the most basic requirement of the General Mining Law, but it is also "most universally ignored by modern mining locators." The locator of a mining claim obtains no rights against the United States until he has made a discovery of a valuable mineral deposit within the limits of his claim. Prior to discovery on any given claim, the rights of a locator to that claim are tenuous, at best, vis-a-vis the government and perhaps surprisingly limited with respect to rival locators.

The scope of this article does not include an examination of the complexities of the discovery requirement, but the presence or absence of discovery may have significant consequences. Prior to discovery, the mining claimant is protected only by the rights of pedis possessio. Only after discovery is the locator safe in taking the position that assessment work will protect the claim against a third party claimant. Another important point regarding discovery involves the different standards applicable to controversies between rival claimants and those between a claimant and the federal government. A far more practical standard of discovery is applied in cases involving rival locators compared with that to which the government holds a locator.

73. Because large exploration "target" areas are typically blanketed by claims, it often happens that the mineral deposits discovered (particularly if they are in isolated pods) will not be of sufficient size to provide evidence of mineralization on each claim. Before the ore body has been delineated, some claims will not be supported by a discovery. Thus, if litigation is initiated, the court should apply group assessment work concepts to some claims within the group and the law of pedis possessio to those claims upon which no discovery has been made. Two good examples are Ranchers Exploration and Development Co. v. The Anaconda Co., 248 F. Supp. 708 (D. Utah 1965); and Continental Oil Co. v. Natrona Service, Inc., 588 F.2d 792, 795, 800-01 (10th Cir. 1978), in which the trial court granted judgment to Conoco, notwithstanding the jury's verdict, on 19 claims upon which it apparently had established a discovery.
74. Chrisman v. Miller, 197 U.S. 313, 323 (1905): "[W]hen the controversy is between two mineral claimants, the rule respecting the sufficiency of a discovery of mineral is more liberal. . . ." See generally 2 Lindley on Mines § 336 (3d ed. 1914), and 1 American Law of Mining §§ 4.46 and 4.47 (1980).

75. Castle v. Womble, 19 L.D. 455, 457 (1894): "[W]here 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 a valuable mine, the requirements of the statute have been met."


77. See 1 American Law of Mining § 4.95 (1980) and cases cited therein. See also Ranchers Exploration and Development Co. v. The Anaconda Company, supra note 52 at 714, 717-20.
For example, assume the situation where the existence of an ore body is confirmed by drilling, but subsequent drilling on adjacent claims exposes no mineralization; thus, the most optimistic estimate of known or proven reserves is only one-half of the amount needed to justify constructing a mill. Alternatively, the exploration budget for the year might already have been exhausted. Assume further that the project geologist suspects that two other ore bodies might exist near the known deposit. The known deposit is at this point covered by two claims upon which discoveries have been made and, in part, by four other claims in which barren holes have been drilled. Lawyers and management in this example are likely to have different ideas about what to do next.

To the lawyer, it is obvious that further drilling should proceed around the known ore body until a discovery has been made on each of the six claims beneath which the known ore body is presumed to extend. To management, it is equally obvious either that additional money is not then available for drilling or that it is futile to make a discovery on each of the remaining four claims if the total reserves would still be only one-half of what is required to justify building a mill. This management decision may result in the loss of that portion of the known ore body outside the two valid claims, since the remaining four claims which have not been validated by drilling or otherwise exposing mineralization are subject to a number of foreseeable and unpleasant events: the federal government may withdraw the land from mineral location; a junior locator, after the senior locator completes his ritual of performing annual assessment work and leaves for the winter, may make the first discovery on these four claims adjacent to the two upon which discoveries have been made; or another "interested party", such as the owner of

78. In Thomas v. Andrus, 552 F.2d 871 (9th Cir. 1977) reh. denied, the circuit court of appeals affirmed, per curiam, a district court decision, Thomas v. Morton, 408 F. Supp. 1361 (D. Ariz. 1976), that owners of Stock Raising Homestead Act lands who also were grazing permittees of the United States had standing to maintain a private contest contesting the validity of the defendant's unpatented mining claims. (The surface owners apparently located their own claims on the ground after the senior locator's claims had successfully been contested.)
surface or grazing rights, may contest the validity of the claims.\textsuperscript{78}

\textbf{Relocation and Amendment of Lode Claims}

As emphasized above, discovery initiates the locator's title to an unpatented mining claim. At some point after discovery and prior to patent, especially where a large group of claims is involved, it often is necessary to amend or relocate some of the claims. Problems concerning whether to relocate or amend claims are not particularly ponderous until discoveries have been made on the claims. Prior to that time, a relocation or amendment only affects \textit{pedis possessio} rights; a relocation or amendment which corresponds with a discovery actually constitutes a new and original location or, perhaps, the completion of a previously incomplete location.\textsuperscript{79} Once an ore body is delineated, the claims should be properly aligned to secure maximum statutory rights and to avoid improperly claiming excess ground. The Interior Department asserts that it is powerless to issue a mineral patent to any surface ground exceeding 300 feet in width on each side "of the middle of the vein or at the surface."\textsuperscript{80} Thus, the center line of each claim, insofar as is possible, should be aligned with the discovery.

Large groups or blocks of mining claims are apt to pose very difficult amendment and relocation problems. These problems are a virtual certainty if the group has been acquired from a third party, if competitors are active in the area, or if the area has been extensively worked in the past. All too often, the acquiring company will not be able to piece together an accurate and complete history of the many claims and, thus, cannot reach definite conclusions with respect to their validity. The goal of the acquiring company is to gain maximum benefit from its acquisition, and in so doing it must minimize the possibility that unknown adverse claimants might be able to establish superior rights. In such

\textsuperscript{79} Reeves, \textit{Amendment v. Relocation}, 14 Rocky Mtn. Min. L. Inst. 207, at 220 (1968). This article presents an excellent and thorough analysis of problems presented in amending and relocating mining claims.

instances, it is often necessary to amend and relocate at least the most strategically situated claims to cover the ore body completely.

Amendment and relocation problems are exacerbated if the large target area was assembled by lease or purchase from a variety of owners. Such large blocks are often amended or relocated to straighten the lines of the claims, to eliminate fractions, overlaps, and oversized claims, and, in general, to piece together a readily identifiable and, hopefully, secure claim situation, at least with respect to the ore body.\(^{81}\) The problem here is whether and how to amend and/or relocate. Differing state laws on this subject further complicate matters. A procedure successfully charted with reference to the laws of one state may be inadequate if applied in another. For simplicity, we will use the two pertinent Colorado statutes as an example.

Under the first Colorado statute, an "additional [location] certificate" may be filed without waiver of existing rights (if the change does not interfere with the existing rights of others) to correct defective or erroneous original certificates, to cure legal requirements which had not been complied with before filing, or to change surface boundaries in order to take in any overlapping claim which has been abandoned.\(^{82}\) The second Colorado statute governs only relocation by appropriating an abandoned lode claim. When relocating an abandoned claim, a new discovery shaft (or map) is required and new boundaries must be marked on the ground, just as with the location of a new claim.\(^{83}\)

Basic questions under these statutes are whether to proceed under one or the other, and whether the benefits of both may be obtained by completely complying with both. For a purchaser, the utility of the second statute is questionable since it is designed primarily for the relocation of abandoned claims by third parties or strangers to the existing claims. No harm, however, is probably done by comply-

81. Reeves, supra note 79, at 208.
ing with the additional requirements of that statute. The "paper" amendments initially provided for under the first statute are referred to by one commentator as amendments of record;\(^8^4\) but that statute also provides for relocation by amendment of the claim on the ground and by acquisition of additional ground upon abandonment.\(^8^5\)

A mere paper amendment will not cure a void claim, \textit{i.e.}, one for which the locator failed to comply with a material statutory requirement. The ground must then be properly relocated. Whenever new ground is taken in, boundaries must be remonumented and the amended or additional certificate must accurately describe the expanded claim. No new discovery is required unless the new or expanded claim, as relocated, does not include the original discovery. A \textit{new} discovery under these circumstances is treated as a new location. Correct or proper location work done under the original location may, however, be adopted by the relocator, but these corrective acts take effect only as of the date of the \textit{new} discovery.\(^8^6\)

In order to be valid, any relocation must be made upon ground which is open to location. A problem with large blocks of claims acquired from third parties is that claims designated for relocation may be situated so as to overlap ground which is within a prior valid claim. If the titles to several layers of claims can be aggregated into one ownership, it may still be impossible to know which layer is valid. In this case, one suggested solution is to consolidate the claims by first aligning the boundaries of the several layers. This, of course, assumes that the claims may all be identified on the ground from recorded descriptions or existing monuments; if this is not possible, the imperfect descriptions should first be made more definite for inclusion in an additional location notice. Surveys should be made, maps prepared, and overlaps and open fractions eliminated by redefining boundaries, both on paper and on the ground. Then,

\(^8^4\) Reeves, \textit{supra} note 79, at 212-13.
\(^8^5\) See Reeves, \textit{supra} note 79, at 213-18.
\(^8^6\) \textit{Id.}
amended location notices should be recorded, reciting that each is an amendment of all the claims covering the particular ground.\(^7\)

In Colorado, however, it appears that the approach suggested above may not be completely workable. Logically, the owner of a contiguous group of claims should be able to adjust his interior boundaries to meet his needs, but in Colorado there appears to be no authority for any such logical deviation from the general rule that a relocation, in order to be valid, must be made on ground which is open to location.\(^8\) Unless the locator abandons the ground embraced by a senior claim, to the extent that it is covered by his own junior claim, the junior claim takes none of the conflicting ground.\(^9\) An otherwise valid junior claim may be invalidated, in whole or in part, if it is relocated over a valid senior claim. Therefore, the owner of conflicting and overlapping claims may find it necessary to abandon (rather than consolidate) conflicting claims in order to create vacant ground upon which to place his relocated claims. Relocation of recent claims without regard to the validity and existence of underlying older claims, or, conversely, relocation of older claims which may have been forfeited by valid relocations in intervening years, may result in gaps or "windows" in coverage. Therefore, it is probably necessary to abandon wholly or in part, as the relative positions and priorities of the tracts may indicate, conflicting valid claims. Only after having opened the ground to location in this manner is it safe to relocate upon the vacated ground. It is also a good idea to provide expressly for abandonment by filing a document reflecting that intent.

**GROUP ASSESSMENT WORK**

After surmounting the difficult tasks of making a discovery on each claim and properly aligning his claims, the owner of a group of mining claims need no longer worry

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87. Reeves, supra note 79, at 229-30.
about relocations, amendments, and the problems associated with *pedis possessio*. Thereafter, his claims may be maintained by compliance with statutory requirements. The primary federal requirement is commonly known as "annual assessment work." A prevalent misapprehension about assessment work, however, springs from the practical necessity of locating mining claims in advance of discovery. Established practice among mining companies is to promptly commence and complete assessment work during the fiscal assessment year following that year during which the claim was located. As emphasized previously, however, a valid location must be founded upon the discovery of valuable mineral. Prior to discovery, assessment work serves no legal (as opposed to geological or practical) purpose except insofar as such annual labor may aid in the establishment of *pedis possessio* rights. This is not to imply that assessment work should not be performed (and the proper documentation filed to verify it) in advance of discovery. Performance of assessment work and the filing of the required documentation serves notice that the locator is serious about maintaining and developing his claims. Moreover, it might be argued by the government that it is essential to prevent the locations from being declared "abandoned and void" under FLPMA and its regulations.

**Group Assessment Work Requirements**

In general, the statute governing annual assessment work is satisfied for a group of unpatented mining claims on which discoveries have been made when the following four requirements are met: (1) The aggregate value of labor and improvements is at least one hundred dollars per claim within the group; (2) The claims are held under common ownership, or there is a community of interest


among the owners of the claims considered and treated as a group for purposes of compliance with the statutory requirements; (3) Annual expenditures benefit, or at least tend to benefit, all claims within the group by reasonably facilitating their development; and (4) The claims are contiguous.

Each of these requirements for group assessment work will be discussed individually, but, with the possible exception of contiguity as noted below, all must be met simultaneously.

1. $100 Per Claim Requirement and the Problem of Allocation

The law clearly mandates that the aggregate value of each year’s expenditures for development or improvements equal or exceed one hundred dollars times the total number of mining claims within the group to which the work is to be applied and apportioned as assessment work. Each $100 worth of work or improvements must be of value to the claim or claims, or it will not qualify. To get into trouble with the $100 per claim requirement then, one must do too little, do what appears to be adequate in an ineffective manner, or do enough but fail to state the correct amount in an affidavit of labor. Assuming that some beneficial work was in fact performed during the fiscal assessment year, but that not enough was appropriately done to maintain the entire group, the question becomes how the effective values should be allocated within the group.

From the claimant’s point of view, the most satisfactory allocation procedure permits the owner of a group of claims to apportion the work performed as he sees fit. 94 The leading case in support of this rule is Utah Standard Mining Co. v.

94. For purposes of the present discussion, it is assumed that the other three requirements for group assessment work, and in particular the benefit test, have been satisfied. Obviously, no matter how much money is spent or how much work is put into a group of unpatented mining claims, if such money or efforts are of no benefit to one or more claims within the group, the owner of the claims cannot satisfy the assessment work requirement
Tintic Indian Chief Mining and Milling Co., and the only limitation imposed by the court on the owner in making this selection is that the claim or claims upon which work was performed must be included in the group maintained by the work performed. A second and different rule for allocation requires that the dollar value of work be apportioned equally to each claim within the group. This rule is also applied by the Interior Department to determine whether a mineral patent application for a group of claims demonstrates sufficient improvements to justify approval of the application. Where the equal apportionment rule is applied, the owner of a group of claims may not be able to maintain his claims against a junior locator on the basis of compliance with the assessment work requirement.

These two rules are not, however, necessarily inconsistent. They may be harmonized if the justification for the equal apportionment rule is based upon the fact that the owner affirms that he has performed sufficient work to maintain all of his claims. Having made such a representation, the owner should be held to it. With the advent of FLPMA and under state statutes requiring the filing of annual affidavits of labor, a representation that sufficient work was performed to maintain the group of claims should be made annually. Under this analysis, the owner claiming group assessment work will be held to his representation that a sufficient amount of labor or improvements was performed.

95. Utah Standard Mining Co. v. Tintic Indian Chief Mining and Milling Co., 73 Utah 466, 274 P. 950 (1929). The court stated: "There is no principle of law that we are aware of which asserts that, if the owner of a group of 22 claims undertakes to do the annual work for that group, and as a consolidated group, and performs only the labor necessary for 9 claims, he loses the benefit of that work on 9 claims, provided it is in fact performed on one of the 9 claims in such a way as to benefit the remaining 8, as well as the one upon which performed." Id. at 951.

96. Note also that in jurisdictions adhering to the contiguity requirement, it would seem that the owner's selection would be further restricted in accordance with that requirement.
or made. The owner should know if his representation is correct, and, if it is not, should abide the consequences.97

When an apportionment situation arises, for whatever reason, the preferred procedure is to file an affidavit of labor claiming assessment work only on the correct number of claims. As to the claims not benefited, or for which an insufficient amount of labor is expended, a notice of intention to hold should be filed. Of course, work should be resumed promptly to prevent a relocation of the claims for which the notice of intent to hold was filed.

2. Claims Held in Common

The statutory requirement that a group of claims be "held in common" before assessment work is allowed to be applied to the entire group of claims is the most frequently discussed group assessment work requirement in the case law. For purposes of this paper, it shall be referred to as the "community of interest" requirement. The concept of community of interest is well illustrated in New Mercur Mining Co. v. South Mercur Mining Co.,98 the leading case in this area of the law on group assessment work, where the Utah Supreme Court remarked:

Community of interest can only pertain where there are separate claims or separate owners. Where the claims are owned in common, or all by one person,

97. There is also a third rule of apportionment, to the effect that the owner can only maintain the claims upon which the work was actually performed, regardless of the aggregate expenditure, if the aggregate is insufficient to maintain the entire group claimed. 2 AMERICAN LAW OF MINING § 7.20 (1980). This rule seems to be a facile and unsatisfactory compromise. It cannot be harmonized with the statute, its underlying rationale, or any notion of equity. The whole purpose of permitting group assessment work is to allow the maintenance of more than those claims upon which work is actually performed because it is impractical and economically ludicrous to require work each year on each claim if the work performed benefits those claims on which no work was physically performed. Only where an owner claims to have performed work which was not in fact performed should there be a penalty such as would be imposed under this third rule of apportionment. As a result, this rule finds little, if any, support in the case law. See, Fredericks v. Clauser, 52 Ore. 110, 96 P. 679 (1908), where less than $200 of labor was performed, and Swanson v. Kettler, 17 Idaho 321, 105 P. 1059 (1909). Also, compare the original decision in James v. Krock, 42 Ariz. 322, 25 P. 2d 1026 (1933), with the one on rehearing, 42 Ariz. 465, 27 P. 2d 519 (1933).

and the assessment work done in one of them, the community of interest in the claims is a legal one and the community of interest in the assessment work is a natural consequence of this legal community of interest. Where there are separate owners the community of interest may in some measure be the amenability of the claims to a common development. However, if the assessment is done off the land of any claimant it is not certain that such community of interest would be sufficient. In such case it would seem that there must be some common right in the assessment work. The owner or owners of the claims whose continued possessory right is made to depend on the development work must have a legal relationship to the work if it is to inure to the benefit of the claim or claims for which it is contended it was done. Where there is a legal relationship between the owner of the land on which the development work is done and the owner of the land claims, it may be sufficient to create the community of interest in the workings depending on the nature of that relationship.

The community of interest problem arises when the groups, or individual claims within one group, to which the assessment work is sought to be applied are owned by different persons, combinations, or entities. In those cases, the party or parties owning the claims upon which the work is not performed must have a "common right" in, or "legal relationship" to, the work performed in order to satisfy the community of interest requirement. The community of interests must be in the work itself; merely grouping the claims together for the purpose of performing the work, intending that it apply to claims or groups in different ownerships, may not satisfy the statutory requirement that the claims be "held" in common.

In *Hawgood v. Emery*, a co-tenant in Claim A attempted unsuccessfully to credit that claim with work done by him on the adjoining Claim B which he owned individually. The co-tenant actually performed the work on Claim B, but the court refused to apply that work toward the assess-
ment work requirement for Claim A, holding that the requisite community of interest could only be established by an "agreement" between the two co-tenants in Claim A. Since the non-working co-tenant in Claim A held no interest in Claim B, and there was no agreement between the co-tenants regarding the work, the non-working co-tenant had no legal relationship to the work performed on Claim B, which defeated the attempt to perform group assessment work.\textsuperscript{100} The court strongly inferred that any such agreement should provide for the sharing of the costs of the work performed.

While some sort of agreement between the owners of the claims within the group must be proven to establish a community of interest in the work, it need not be in writing. A parol agreement among the locators of numerous claims has been held to suffice if it provides that all of the claims within the group should be owned by all of the locators.\textsuperscript{101} Moreover, the requisite community of interest was shown where one group of claims was owned by a corporation and a second group was owned individually by the president of and the principal stockholder in that corporation.\textsuperscript{102}

Few problems should arise regarding the community of interest requirement under the typical arrangements presently used in the mining industry. The cases indicate that the community of interest requirement is satisfied if there exists an ownership interest, or the right to obtain an ownership interest, in the claims to which the work per-

\textsuperscript{100} "[W]here there are several claims adjacent held by different persons and work beneficial to all of said claims can best be done on one of them, then, under a proper agreement between the owners of said claims, development work can all be done on one claim, and be credited to several claims, such work being a part of the general plan or scheme for the development of the several claims." \textit{Id.} at 178.

\textsuperscript{101} Eberle v. Carmichael, 8 N.M. 169, 42 P. 95 (1895).

\textsuperscript{102} Karnes v. Flint, 153 Wash. 225, 279 P. 728 (1929). While the Court quoted \textit{Hawgood v. Emery} with approval, there is no express finding of an agreement between the corporation and its president; nor is there any specific statement regarding the situs of the work performed. It appears that the individual either performed or paid for the work himself. Thus, his fiduciary relationship to the corporation, or the fact that the corporation was his alter ego, could support a finding that the corporation had a legal relationship to the work. Under the rule of \textit{Hawgood}, however, had the corporation performed or paid for the work it seems that the individual would have had to enter into a cost-sharing or other arrangement with the corporation to establish a community of interest.
formed is to be applied, together with some sort of verifiable agreement with the other owner or owners of claims within the group which governs or permits a plan of common development. This agreement should delegate responsibilities for the work to be performed and provide for the sharing of costs.

3. Benefit Requirement

The most important criterion which must be satisfied to properly conduct group assessment work is that which requires a demonstrable relationship between the work which is performed and the development of each of the claims within the group.103

The Supreme Court most succinctly addressed the benefit requirement as it pertains to claims “held in common” in Jackson v. Roby.104 There, the senior locator attempted to apply the group assessment work doctrine to three adjoining claims, arguing that the construction of a flume by means of which the tailings from one of the claims were carried and deposited on another of the claims satisfied the statutory requirement for each claim during the assessment year in question. Speaking for the Court, Mr. Justice Field ruled that such work was insufficient to maintain the claim upon which the tailings were deposited: “In such case the work or expenditure must be for the purpose of developing all the claims. It does not mean that all the expenditure upon one claim—which has no reference to the development of the others—will answer.”105 He went on to state that the group assessment work doctrine does not apply where expenditures are made for the development of one or a few of the claims within the group, without reference to the development of the others. “In other words, the law permits a general system to be adopted for adjoining claims held in common, and in

103. This important requirement has been the topic, or the major concern of, several Rocky Mountain Mineral Law Institute proceedings. E.g. Payne, Compliance with Group Assessment Requirements, 7 ROCKY MTN. MIN. L. INST. 515 (1961), and Assessment Work Manual (ROCKY MTN. MIN. L. FNDN. 1971), Chapter 3. It is beyond the scope of this paper to delve deeply into the subject, which truly justifies singular treatment.


105. Id. at 444.
such cases the expenditures required may be made or the labor be performed upon any one of them.\textsuperscript{106}

Since the explanation of this doctrine by Mr. Justice Field, it has remained the law that group assessment work must be done in furtherance of a general plan, system, or scheme of development which tends to benefit and facilitate the extraction of ore from each claim in the group.\textsuperscript{107} One claiming the benefit of group assessment work has wide latitude in the exercise of professional judgment as to where and how the work shall be performed in order to best develop all of the claims.\textsuperscript{108} But the work performed must be intended in good faith to benefit all of the claims within the group, and it must, in fact, have at least some tendency to benefit or develop all of the claims.\textsuperscript{109} In sum, the purpose for which the work is done should be premeditated and must be manifested by a tangible relation to each claim.

Rather than detailing the infinite variety of group assessment work which has been subjected to the benefit analysis in the case law,\textsuperscript{110} it is more practical for purposes of the present analysis to discuss the general development plan or scheme upon which one must ultimately rely if called upon to defend annual labor that is claimed as group assessment work. First, it is not necessary that the system or plan or scheme of development be reduced to writing, include exact specifications, or be adopted in advance of

\textsuperscript{106} \textit{Id.} at 445. Accord, Chambers v. Harrington, 111 U.S. 350, 354 (1884): “One general system may be formed well adapted and intended to work several contiguous claims or lodes, and where such is the case work in furtherance of the system is work on the claims intended to be developed.” \textit{Quoting}, Mount Diablo Min. & Mill. Co. v. Callison, 17 Fed. Cas. 918 (No. 9,886), 5 Sawyer 439 (C.C.D. Nev. 1879).


\textsuperscript{110} Whether the work performed tends to benefit or develop each claim in the group is a question of fact, which can only be decided on the concrete evidence in each case. Altoona Quicksilver Min. Co. v. Integral Quicksilver Min. Co., 114 Cal. 100, 45 P. 1047 (1896); Big Three Min. & Mill. Co. v. Hamilton, supra note 109; Love v. Mt. Oddie United Mines Co., supra note 108; Kramer v. Taylor, supra note 108.
performing the work. Great reliance should not, however, be placed upon the notion that a preconceived, written, and specific plan is unnecessary. The larger the group, the more necessary such a plan becomes. Without benefit of a development plan, the owner of a large group of unpatented mining claims might be hard-pressed to justify the necessity of maintaining such a large holding or to show how the work performed directly facilitates the extraction of ore from claims not closely associated with those on which the work was performed. A preconceived and well-documented plan of development is the best evidence of the intent to develop the entire prospect as a logically integrated mining property.

Under present circumstances, where competition is intense and prospectors are more and more inclined to question whether those claiming large groups of mining locations have complied with the law, anyone contemplating group assessment work on a large block or group of mining claims is best advised to develop plans and specifications in advance of performing assessment work which is intended to apply to claims on a group basis. A general plan, formulated in advance, is far preferable to relying on post-hoc rationalization. Although a court will not substitute its judgment for that of the considered expertise of the miner, it cannot be overemphasized that the feasibility of any plan of operation must be readily apparent. Benefit will not be presumed; it must be demonstrated as a fact.

4. "Requirement" of Contiguity

"Contiguous," as used in the case law, the regulations, and in this discussion, is given its dictionary meaning, referring to claims that touch each other along part or all of at least one side. Unlike the benefit requirement, the requirement of contiguity is not necessarily an absolute requirement, although some cases certainly suggest that this

112. See also Hidden Treasure Consolidated Quartz Mine, 35 I.D. 485 (1907); and Anvil Hydraulic & Drainage Co. v. Code, 182 Fed. 205 (9th Cir. 1910). Cf. Henry Petz, et al., 62 I.D. 33 (1955), regarding the definition of contiguous with respect to the preference right regarding contiguous lands granted to holders of grazing leases.
is so. The requirement of contiguity was first clearly stated in *Chambers v. Harrington.* 113 Relying on a Nevada Circuit Court decision, 114 the court stated, "It is equally clear that in such case the claims must be contiguous so that each claim thus associated may in some way be benefited by the work done on one of them." 115 The court assumed that the benefit and contiguity requirements are inextricably interrelated: work performed upon one of a group of claims (or off the claims) for the benefit of all of them is irrebuttably presumed to be of no benefit to those claims which are not contiguous to those on which, or for which, the work is performed.

It is only natural for other courts to follow the language in Supreme Court opinions, even if *dictum,* and soon the contiguity requirement appeared in a number of cases. 116 Even Judge Lindley approved the rule that the claims must be contiguous so that each claim thus associated may in some way be benefited. 117 The contiguity requirement may still be found in Interior Department regulations, 118 which state, "Where a number of contiguous claims are held in common, the aggregate expenditure that would be necessary to hold all the claims may be made on any one claim. Cornering locations are held not to be contiguous." Thus, the Interior Department, like the Supreme Court and Judge Lindley, interpret the contiguity requirement to be absolute.

Analysis of the cases, and the assumptions which first gave rise to the contiguity requirement, clearly demonstrate that the requirement, far from being absolute, is instead

114. Mount Diablo Min. & Mill. Co. v. Callison, 17 Fed. Cas. 918 (No. 9,886) (C.C.D. Nev. 1879), in which Judge Sawyer stated: "One general system may be formed well adapted and intended to work several contiguous claims or lodes, and when such is the case, work in furtherance of the system is work on the claims intended to be developed by it." *Cited in* Chambers v. Harrington, *supra* note 113, at 353.
117. 2 LINDLEY ON MINES § 630 (3rd Ed. 1914).
illogical. First, all the reported cases which state that contiguity is an absolute requirement were decided on issues other than contiguity; i.e., the requirement, when apparently imposed, has always been dictum. Second, the assumption that contiguity is required in order for the work to benefit each claim is plainly illogical since the law allows even work performed entirely outside of the group of claims (such as building roads to the claims) to apply as group assessment work sufficient to maintain those claims under 30 U.S.C. § 28.

All of the cases can be reconciled with the thought that contiguity is not an absolute requirement when it is accepted that benefit is the important test. Noncontiguity will, of course, render it more difficult to prove benefit to the claims for which the work purports to be apportioned when those claims are separated from the claims upon which the work is actually performed. The further the distance, the greater the difficulty in demonstrating the benefit. Numerous courts have, notwithstanding the dicta discussed above, ruled, properly and reasonably, that contiguity is not an absolute requirement.

Perhaps the most accurate and best discussion of the law regarding the contiguity “requirement” appears in the case of *Hain v. Mattes*.¹¹⁹ There, work was performed in a tunnel which, when extended, would eventually reach the claim that was the subject of the lawsuit. The owner claimed that the tunnel was driven with the intention of developing the claim in question as well as 31 other claims within the group and that the tunnel would eventually reach the claim in question. The jury was instructed on the benefit requirement and further instructed that contiguity was not necessary in order for the work to apply as assessment work and prevent the claimed forfeiture. The relocator appealed that instruction. The court approved the instruction, but relied on the 1875 amendment to 30 U.S.C. § 28 to distinguish *Chambers v. Harrington* and the other cases requiring con-

¹¹⁹ *Hain v. Mattes*, 34 Colo. 345, 63 P. 127 (1905).
The Court properly ruled that "the true test to be applied is, does the work benefit or tend to benefit the claim, and was it done for the purpose of developing the claim?" The court reasoned persuasively that if work performed outside of the boundaries of a claim, such as the construction of a wagon road, or at a distance from the claim or upon a patented claim may be held to comply with the annual assessment work requirement, work done in a tunnel for developing a claim may be also applied as annual assessment work regardless of the contiguity or noncontiguity of the territory from the portal of the tunnel to the claim alleged to be benefited. Noncontiguity, therefore, is important only insofar as it may have a bearing on the ultimate question of whether the work does or does not tend to develop the claim in question.

Despite this reasoning, in view of the fact that the Interior Department regulation still requires contiguity in order for assessment work to apply to each claim in the group, it is by far the safest course to only apply group assessment work practices in conformity with the contiguity requirement. This is especially the case since it is now at least implied that the government could contest mining claims on the ground that annual assessment work was not performed or was improperly performed. If one seeks to apply assessment work to noncontiguous claims he should be strongly of the opinion that the work done on one of two or more groups of claims clearly satisfies the benefit test. If the benefit test can be established, a senior locator should be protected against rival locators who would attempt to assert title solely on the basis that the contiguity requirement was not satisfied.

120. On February 11, 1875, Congress amended Section 5 of the General Mining Law of 1872 (18 Stat. at 315) to provide that a person may run a tunnel for the purpose of developing lode or lodes owned by it and that the money so expended will be considered as expended upon such lode or lodes.

121. Hain v. Mattes, supra note 119, at 350, 83 P. at 130.

CONCLUSION

Like the federal government and the legal profession, the hardrock minerals exploration industry has grown and changed over the last century to a point never contemplated or even imagined by its earliest participants. Changing economics of mineral development and new technologies that permit the recovery of large, often low-grade, mineral deposits have radically changed the very nature of hardrock mineral development. The increasing pace of these changes puts considerable pressure on the limitations first conceived by those earliest participants and then codified in the General Mining Law.

To date, the General Mining Law has served the industry well and the courts have generally afforded adequate protection for the time and money invested. Nevertheless, today's hardrock miners find less public land available to them. They also have a need for larger areas to render low-grade deposits economically mineable, and they ply their trade under increasing governmental and public scrutiny. All of this, plus heightened competition within the industry, increases the pressure to break down existing barriers, both legal and equitable. As a result, it is more and more difficult to acquire and then keep a strategic land position consisting of unpatented mining claims.

Some locators are showing an increased tendency to try to extend the General Mining Law to (or beyond) its limits, and junior locators are more willing than ever to challenge senior locations which have not been perfected by a discovery. When the needs of the industry run hard up against the barriers of existing law, something must give. Usually, but not always, it is the industry rather than the law. Even so, temporary breakthroughs in the barriers imposed by the law may quickly close; the Geomet case is just one example. The wisest course today may simply be to take advantage of the surest protections the law provides. The greatest anodyne to modern headaches suffered in the industry is provided
by making discoveries on unpatented mining claims. When this is not possible, there is no better protection than total preparation based upon adequate knowledge of the limitations within which the miner must work.