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In the first part of this article, which appeared in Volume III, Number 1, the authors discussed the appropriation and the form of permissible appropriations of public mineral lands. Here the authors continue their discussion of location requirements and examine the influence of modern hard mineral exploration methods on the "discovery" requirement of the mining laws applicable to the public domain in Wyoming.

MINING LAW IN A NUCLEAR AGE:
THE WYOMING EXAMPLE

Don H. Sherwood*
Gary L. Greer**

INTRODUCTION TO PART II

The statutory alternative between lode and placer mining claims has already been considered, and in this part of the article we will examine the "discovery" requirement applicable generally in Wyoming to both kinds of mining for valuable rock.
claims. But solving the puzzle of whether a particular mineral deposit is a lode or a placer does not fully determine whether and how that deposit is locatable. The Federal mining laws provide for other kinds of locations, and there are several varieties of placer claims. It is therefore appropriate to summarize the law bearing on locatability and on the choice of form of location before proceeding to an investigation of location procedures and the discovery requirement.

LOCATABILITY OF PARTICULAR KINDS OF MINERALS AND MINERAL LANDS

We have heretofore discussed the appropriation of publicly owned lands, under the Federal mining laws, in terms of "locatable public domain" not segregated from mineral entry by the Government or by prior valid claims. But locatability depends upon more than the status of publicly owned lands and their mineral character. In the first place, it should be obvious that some materials found on the public domain are not minerals and will not support the location of a mining claim. Furthermore, some substances which are in fact minerals, in the broad sense, are, like coal, not subject to location under the mining laws.

That some minerals are not locatable is the result of the fact that the Federal mining laws, which once applied to all kinds of minerals, except coal, have been amended from

3. Locatability was discussed in Sherwood & Greer, supra note 2, at 6-12, with reference to "publicly owned mineral land." Id. at 6.
4. Sherwood & Greer, supra note 2, at 6-12.
6. Strictly defined, a mineral is a naturally-occurring, inorganic, homogenous substance with a definite chemical composition capable of being expressed by a chemical formula. See Ray, Glossary of the Mining and Mineral Industry (1920, reprint 1947) (adopting Dana's definition). But such a definition eliminates many substances which are minerals in the broader sense that they occur naturally and are neither animal nor vegetable, even if they once were. Thus, the mineral fuels, such as oil, coal, lignite, and other hydrocarbons, and gases such as helium, are "mineral" in the sense that they are often so regarded.
7. See note 6 supra and note 8 infra.
8. Coal became the subject of special legislation, Act of July 1, 1864, ch. 205, 13 Stat. 343, prior to the adoption of the original mining law in 1866, Act of July 26, 1866, ch. 262, 14 Stat. 251. The statutory exclusion of certain kinds of mineral deposits from location under the mining laws is a Twentieth Century development. See note 9 infra. The Coal Act of Mar. 3, 1873, ch. 279, §§ 1-6, 17 Stat. 607, 30 U.S.C. §§ 71-76 (1964), which provides for the entry of coal beds or coal fields, has been said to be now applicable only "to coal found on some Indian reservations. By the leasing Act of 1920 all
time to time over the years to exclude certain minerals from location. Occasionally, the existence of locatable minerals in association with minerals excluded from location may prevent appropriation of the locatable minerals, and yet other coal deposits on the public domain are acquirable by lease rather than by entry.” C. Martz, Cases on Natural Resources 517 (1951). Compare Diamond Coal & Coke Co. v. United States, 233 U.S. 236 (1914) (patents to soldiers’ additional homestead entries in Wyoming cancelled as fraudulently obtained to acquire coal beds not then actually disclosed therein) with United States v. Lonabaugh, 158 F. 314 (D. Wyo. 1907), rev’d on other grounds, Lonabaugh v. United States, 179 F. 476 (8th Cir. 1910) (criminal prosecution based upon attempt to acquire in Wyoming, which is directly prohibited by the Coal Act, which restricts the total acreage which can be acquired by any one person or association).


the converse is also true. 12 Locatability may, in some cases, even depend upon an evaluation 13 of the land in which certain deposits are found, 14 or upon the "variety" of minerals comprising the deposits found on the land. 15 Furthermore, the discovery of minerals subject to location will not support an appropriation under the mining laws unless the deposit qualifies as a "valuable" mineral deposit. 16 The criterion of value sufficient to validate a mining claim as against the paramount title of the United States, however, is beyond the scope of this article and, in any event, seldom arises in disputes between miners. 17

ALTERNATIVE FORMS OF LOCATION

It is correct to say that locatable publicly owned mineral land is appropriated, under the Federal mining laws, by the location of either lode or placer mining claims, 18 depending on the nature of the mineral deposit discovered. 19 But there are other forms of location, and it is important for the lawyer to distinguish between them.

13. See, e.g., 30 U.S.C. § 161 (1964), which provides that lands chiefly valuable for building stone are locatable. But see note 22 infra.
14. See note 9 supra, and compare note 28 infra, discussing statutes which were generally passed to authorize the use of the placer form of location as well as (or, perhaps, rather than) to confirm the locatability of a particular kind of mineral.
15. The Act of July 23, 1955, Pub. L. No. 84-167, ch. 375, 69 Stat. 367, as amended, amending the Materials Disposal Act of July 31, 1947, ch. 406, 61 Stat. 681 (now combined as 30 U.S.C. §§ 601-615 (1964)), excluded deposits of "common varieties of sand, stone, gravel, pumicite, pumicite, cinders and . . . petrified wood" from location under the mining laws. But "deposits of such materials which are valuable because the deposit has some property giving it distinct and special value" and "block pumicite which occurs in nature in pieces having one dimension of two inches or more" are still locatable. Cf. 43 C.F.R. § 3511.1 (b) (1968), defining "limestone suitable for use in the production of cement, metallurgical or chemical grade limestone, gypsum, and the like" as locatable. The authors are not, however, aware of any published decisions of the Department of the Interior finding deposits of sand, stone, gravel, pumicite, cinders or petrified wood to be valuable because of distinct and special properties (other than those specified), and none are cited in Barry, Determination of What Constitutes "Common Varieties," 12 ROCKY MT. MINERAL INST. 225 (1967). To rely on the distinct and special properties exception rather than the materials disposal provisions of 30 U.S.C. §§ 601-604 (1964), which covers common varieties of sand, stone, gravel, pumice, pumicite, cinders, clay, etc., is apparently to invite a contest by the Bureau of Land Management.
17. As to the issue of value in such disputes, see infra at note 198.
18. See 43 C.F.R. § 3410.1-6 (1968): "Mining claims are of two distinct classes: Lode claims and placers."
19. 30 U.S.C. §§ 23, 35 (1964). See Sherwood & Greer, supra note 2, at 12-32. The confusion between lodes in placers and lode claims in placer claims has been discussed. Id. at 12, n.62.
The mining laws provide for two distinct classes of appropriation: Mining claims based upon the discovery of valuable mineral deposits and nonmineral claims located for either exploration or other mining purposes. We have so far limited our attention to mining claims and the choice between the two principal types—lodes and placers—because mining purpose claims, of which there are two principal types


21. Tunnels "run . . . for the discovery of mines" are provided for in 30 U.S.C. § 27 (1964). Cf. 45 C.F.R. §§ 3415.1 to 3415.3 (1968). If properly located, and prosecuted with reasonable diligence, the owners of tunnels "run for the development of a vein or lode, or for the discovery of mines . . . shall have the right of possession of all veins or lodes within three thousand feet from the face of such tunnel, and not previously known to exist, discovered in such tunnel, to the same extent as if discovered from the surface . . . ." 30 U.S.C. § 27 (1964); Enterprise Mining Co. v. Rico-Aspen Consol. Mining Co., 167 U.S. 108, 111-112 (1908). A Regulation of the Department of the Interior attempts to limit the statute to "blind lodes . . . not previously known to exist," and to restrict its applicability where "lodes appear upon the surface." 45 C.F.R. § 3415.1 (1968). The Regulation assumes that the law of the apex, 30 U.S.C. § 26 (1964), overrides the discovery provisions of 30 U.S.C. § 27 (1964), and in this respect is clearly wrong. See 1 AMERICAN LAW OF MINING § 5.38 (1963) which, incidentally, points out that 45 C.F.R. § 3415.2 (1968) is inconsistent with 43 C.F.R. § 3415.1 (1968) and that the intent of Congress may be achieved by the prohibition of 43 C.F.R. § 3415.2 (1968) against "prospecting for lodes not previously known to exist . . . while work on the tunnel is being prosecuted with reasonable diligence." We classify the "tunnel-site" claim, which is run for development or discovery, as a "nonmineral" or mining purpose claim because its validity is not dependent upon the disclosure of a valuable mineral deposit.

22. There are four kinds of "mining purpose" claims, one of which, the development tunnel provided for in 30 U.S.C. §§ 27, 28 and 43 (1964), is probably not a claim at all, unless located under 43 C.F.R. §§ 3415.2 and 3415.3 (1968) as a discovery tunnel. Two of the other three kinds of nonmineral claims (all of which are commonly but somewhat loosely thought of as mining claims) are incorrectly referred to as "millsite" claims. Five-ace claims for "nonmineral land . . . used or occupied by the proprietor of [a] . . . vein or lode for mining or milling purposes," 30 U.S.C. § 42(a) (1964) (emphasis added), and for "nonmineral land . . . needed by the proprietor of a placer claim for mining, milling, processing, beneficitation, or other operations in connection with such claims, and . . . used or occupied by the proprietor for such purposes," 30 U.S.C. § 42(b) (1964) (emphasis added), may be located in conjunction with the proprietors' mining claims and purchased at the price per acre specified for the claims upon which they are dependent. The true (or independent) millsite is provided for in 30 U.S.C. § 42(a) (1964) which gives to "the owner of a quartz mill or reduction works, not owning a mine in conjunction therewith," the same right to locate five-acre claims as is enjoyed by the proprietor of a lode claim. As to "millsites" generally, see Greer, Millsites: Nonmineral Mining Claims, 13 ROCKY MT. MINERAL L. INST. 143 (1967), and 1 AMERICAN LAW OF MINING §§ 5.31 to 5.37 (1963).
—“tunnel-sites”\(^{23}\) and “millsites”\(^{24}\)—have not been discussed in the Wyoming cases.\(^{25}\) As to this latter class of appropriation, the Wyoming lawyer must look elsewhere for authority.\(^{26}\)

As to mining claims, the nature of the mineral deposit discovered will, as we have seen, determine the type of claim which should be used,\(^{27}\) but it will not fix the form of location


24. See note 22 supra.

25. The Territorial Legislature did provide for tunnel claims and millsites in the Law of Dec. 2, 1869, ch. 22, §§ 11, 12, 13 and 19, [1869] Wyo. Laws 309-311, but all four sections of that law were repealed by the Law of Dec. 13, 1873, ch. 17, § 1, [1873] Wyo. Laws 176. Section 11 of the 1869 Act was limited to “blind” or non-cropping ledges and the discovery of “a ledge or lode by means of a tunnel” entitled the discoverer “to an extra or additional claim of two hundred feet for the discovery.” Law of Dec. 2, 1869, ch. 22, § 12, [1869] Wyo. Laws 310. Section 13 of the 1869 Act gave tunnel owners the rights to minerals extracted from lodes claimed to be previously discovered and worked by others on the surface above the tunnel until the ownership thereof was established in favor of the surface owners by intersecting the tunnel with workings from the surface. These sections, which were geared to the Federal mining law of 1866, Act of July 26, 1866, ch. 262, 14 Stat. 251, were repealed shortly after the adoption of the Federal tunnel-site statute, now 30 U.S.C. § 27 (1964), in the Act of May 10, 1872, ch. 83, 17 Stat. 40, 40 U.S.C. § 22 (1964). It is clear that the Legislature has contemplated the right to locate “a tract of land not exceeding five hundred feet square” to “persons claiming mill sites for quartz mills,” was similarly repealed after the adoption of the first millsite statute in the Act of May 10, 1872, ch. 162, § 15, 17 Stat. 91.

26. See notes 21-24 supra, and the materials there mentioned.

27. See Sherwood & Greer, supra note 2, at 12-32, as to the distinction between lode and placer deposits. The Wyoming statutes strengthen the nuisance which the locator may place upon the dictum in Globe Mining Co. v. Anderson, 78 Wyo. 17, 318 P.2d 373, 377-378 n.4 (1957), that strata-type deposits may be lodes in certain cases. See Wyo. Stat. § 30-9 (1957), which provides for the relocation of abandoned strata claims “by sinking a new discovery shaft . . . in the same manner as provided for the location of a new claim.” Since discovery shafts are required only for lode claims, Wyo. Stat. §§ 30-6 and 30-7 (1957), and not for placer claims, Wyo. Stat. § 30-3 (1957), it is clear that the Legislature has contemplated the location of strata as well as fissures [a term used in conjunction with “vein” and “lode” in Wyo. Stat. § 30-3 (1957)] since the first use of those words in the Law of Mar. 12, 1886, ch. 115, §§ 5 and 15, [1886] Wyo. Laws 440, 444-445, when the lode notice provision still referred only to mineral lodes. Law of Mar. 12, 1886, ch. 115, §§ 5 and 15, [1886] Wyo. Laws 449. The expansion of the latter to the “mineral lead, lode, ledge or vein” language now found in Wyo. Stat. § 30-1 (1957) occurred two years later. Law of Mar. 6, 1888, ch. 40, § 15, [1888] Wyo. Laws 87. Section 2 of the Law of Mar. 12, 1886, ch. 115, [1886] Wyo. Laws 439, also mentioned “crevices” in conjunction with lodes and veins, but this word was deleted by the Law of Mar. 6, 1888, ch. 40, §§ 14 and 26, [1888] Wyo. Laws 87, 91. The emphasis is clearly on the nature of the deposit as rock in place, and the use of placer claims for the location of mineralized leads, lodes, ledges, veins, strata, or fissures is patently dangerous.
which may be used if the kind of mineral discovered subjects the location of the deposit to a special provision of the mining laws. Thus, lands “chiefly valuable for building stone” may be locatable as placer claims under the Act of August 4, 1892. Furthermore, once it is determined that a particular deposit must or may be located as a placer, there are two different kinds of placer locations which may be used, depending on the number of individuals participating in the location.

While an individual can locate any number of placer claims, each such claim is limited to not more than twenty acres in surface area, and there must, of course, be a discovery on each claim. Beginning at noon on the first day of September after location, the required annual labor must be performed on each claim for each succeeding assessment year, if the locator intends to protect his claims against forfeiture to others by relocation. But an association of two or more individuals may hold up to 160 acres as a single


33. “[N]o location of a placer claim ... shall exceed one hundred and sixty acres for any one ... association of persons ...” 30 U.S.C. § 36 (1964). “[N]o location of a placer claim can be made to exceed 160 acres, whatever may be the number of locators associated together ... and ... no location can exceed 20 acres for each individual participating therein; that [is] ... a location by two persons can not exceed 40 acres, and one by three persons can not exceed 60 acres.” 43 C.F.R. § 3416.1(c) (1968).
placer claim. Only one discovery within the boundaries of such an association placer claim is required to validate the claim, and the entire claim is treated as one location for the purpose of determining the amount of assessment work which must be performed to maintain the claim thereafter. The advantages of association for the purpose of locating placer claims are obvious, but so are the temptations to form “dummy” associations for the purpose of obtaining those advantages. The dummy association works a fraud both on the United States and on other prospectors.

Although the formation of a true association for the purpose of locating and holding an association placer claim is certainly justifiable, and the claim so held perfectly valid, even valid association placer claims are subject to certain risks which can lead to disasters no less real than those which have been suffered by dummy associations. Thus, the conveyance of a true association’s interest in an association

36. E. De Soto & A. Morrison, supra note 31, at 136. Cf. 43 C.F.R. § 3416.6 (1968). As to discovery work, the rule would be the same, thus requiring only one discovery shaft. Phillips v. Brill, 17 Wyo. 26, 95 P. 856, 859 (1908), except for the fact that in Wyoming discovery shafts are not required on placer claims of any kind. Wyo. STAT. § 30-10(5) (1957).
37. 2 C. Lindley, MINES § 450, at 1062-1068 (3d ed. 1914); E. De Soto & A. Morrison, supra note 31, at 262-263.
38. Although there is early authority that only the Government can complain of the fraud committed against it by the use of dummy locators, Mitchell v. Cline, 84 Cal. 409, 24 P. 164 (1890); Riverside Sand & Cement Mfg. Co., 111 Cal. 412, 42 P. 130 (1902). See also the accepted view of (1911) the association “may be investigated and determined where the original parties to the fraud or persons having notice are before the court.” 2 C. Lindley, supra note 37, § 450, at 1067. See also Cook v. Klonos, 164 F. 529 (9th Cir. 1908). A classic example of a true dummy locator case is United States v. Brookshire Oil Co., 242 F. 718 (S.D. Cal. 1917). A located an association claim in the names of eight persons and then entered into a contract with an oil company for the development of the claim. The eight locators were relatives of A, but A had no authority to locate for them. The eight locators were unaware of A’s conduct until A requested and obtained from them deeds conveying their interests for a nominal consideration. The Government brought suit and obtained a decree invalidating the claim. It was held that A acquired no rights against the Government and that the defendant oil company, which was in possession under a conveyance from A, had an interest which was of necessity no better than A’s. In United States v. Cheville, Canisteo Mfg. Oil Co., 266 F. 148 (S.D. Cal. 1918), A, an individual, made a paper location in the name of B and seven others. B and the others knew nothing of the location. At A’s request the seven others conveyed to B in trust for A. B then conveyed to A. There was no consideration for any of the conveyances. A then made a deal with an oil company. The United States brought a suit in equity to invalidate the claim in the hands of the defendant oil company. It was held that the land was the property of the United States. The court said that the value of the scheme would have enabled A to acquire more land than the law permits by one location. Hence, the location was invalid and since A gained nothing by the conveyance from B, A could convey nothing to the oil company. The case was affirmed on appeal. 266 F. 145 (9th Cir. 1920). Cf. note 39, infra.
placer claim to a single individual or corporation, whether or not the grantee is a member of the association, prior to the time an actual discovery is made on the claim, can invalidate all or most of the claim. Furthermore, abandonment by one member of the association of his undivided interest in the claim may jeopardize the entire claim if the land is no longer open to location, whether the remaining owners can forfeit a defaulting co-locator's interest for failure to contribute to the required annual assessment work or not. Finally, until a discovery has been made on a true association claim, the creation of unequal interests in the claim will jeopardize its validity.

The danger in utilizing association placers is well illustrated by the cases involving the now-obsolete oil placer association claim and the relief Congress provided for such

39. H. H. Yard, 38 Interior Dec. 59 (1909); Bakersfield Fuel & Oil Co., 39 Interior Dec. 460 (1911). In one class of case, the validity of a claim has been challenged by a third party in a proceeding adverse to a patent application. In such cases the courts have often permitted the defendant-patent applicant to select twenty acres to which it would have been entitled as an individual locator with one discovery. See Gird v. California Oil Co., 60 F. 551 (S.D. Cal. 1894), and Durant v. Corbin, 94 F. 382 (D. Wash. 1899). It should be noted that in cases in which the option to select twenty acres is accorded, it appears that the parties receiving the benefit of the option either did not participate in a dummy locator fraud or, if they were grantees, did not have knowledge of any fraud. Rooney v. Barnette, 200 F. 700 (9th Cir. 1912).

40. "A mining claim may be declared null and void as to the interests of some of the locators while a contest may be carried on against others." United States v. Robert N. Johnson, A-30828, GFS (Mining) SO-1968-12, at 4 (Jan. 29, 1968), citing Union Oil Co. of Cal., 72 Interior Dec. 313 (1965). When a undivide interest in an association placer claim is abandoned, it either inures to the remaining co-locators, Wiltsee v. Utley, 79 Cal. App. 2d 71 (1947), or it reverts to the United States, in which case a relocation would be necessary to take up the abandoned interest, as in the case of lode claims, Wyo. Stat. § 30-9 (1967); Conn v. Oberto, 32 Colo. 313, 76 P. 369 (1904); Oberto v. Smith, 37 Colo. 21, 86 P. 86 (1906). If there were originally eight locators, and 160 acres claimed, the claim would immediately become too large in either case. If the ground is not open to relocation, and it is necessary to relocate, it is difficult to see how the remaining seven locators could relocate the ground, either as a 140 acre claim or, of course, as a full 160 acre claim, even with an additional locator. In either event, agreements binding the co-locators to make conveyances of their individual interests to a designated grantee or to the association, though desirable from a practical standpoint, create obvious hazards. See note 38 supra.


42. See Hamilton v. Ertl, 146 Colo. 360 P.2d 660 (1961). This case holds that one co-locator performing annual labor may forfeit out the interests of his non-contributing co-locators, even where the land is not open to relocation, and the dissent argues that since the annual labor was unnecessary, because the land had been withdrawn, the co-locators' interest could not be forfeited for failure to contribute to work which was not required.

43. Nome & Smoook Co. v. Snyder, 187 F. 385 (9th Cir. 1911); Rooney v. Barnette, 200 F. 700 (9th Cir. 1912).

44. See note 9 supra, and the cases mentioned in 2 C. Lindley, supra note 37, § 450.
oil claims but not for any other kind of association placer claim. In view of the rule that the miner chooses between the lode and the placer form of location at his peril because the discovery of a lode will not support a placer location and vice versa, the handy generalization that all locatable mineral deposits should be claimed as placers, except those which should be claimed as lodes, is not only useless but serves as a dangerous invitation to careless or indiscriminate use of placer claims by those attracted to placer claims because of the advantages in locating, maintaining, and purchasing placer—and especially association placer—claims.

**QUALIFICATIONS OF THE LOCATOR**

Citizenship, or a proper declaration of intention to become a citizen, is the only statutory qualification specified for those who would locate mining claims on the public domain, and provision is made for proof of citizenship by individuals, unincorporated associations, and corporations. A "corpor-
tion organized under the laws of the United States, or of any State or Territory thereof," qualifies, and need not show that its stockholders are citizens. Thus, if a foreign corporation acquires control of a corporation organized in any American jurisdiction, the domestic corporation can locate and hold mining claims in Wyoming for the benefit of the foreign corporation and its shareholders.

Even alien individual locators are, for all practical purposes, protected pending an "inquest" into their qualifications by or in behalf of the United States in a proper case. In Sherlock v. Leighton, an adverse proceeding under the statute, between two conflicting claimants, Sherlock was the prior locator and Leighton brought the adverse suit against him when Sherlock attempted to patent his claim. Leighton won in the trial court, and contended on appeal that the judgment that he was entitled to the ground in dispute should be affirmed because Sherlock failed to establish his citizenship. The Wyoming Supreme Court held that the absence of evidence establishing Sherlock's citizenship authorized the trial court to refuse to award possession to Sherlock, but did not authorize a judgment for Leighton. On petition for rehearing, the Court adhered to its decision reversing the trial court, noting that Sherlock's failure to establish that he was a citizen was not the equivalent of proof by Leighton that Sherlock was an alien. Proof of alienage might have

Mining Co., 130 U.S. 293 (1889), but an ordinary unacknowledged location certificate, reciting the same facts, would not, since it need not be acknowledged to be recorded. Wyo. Stat. § 30-1 (1957). But compare Wyo. Stat. §§ 34-18 and 34-19 (1957) with Thomas v. Roth, 386 P.2d 926, 930 (Wyo. 1963). The Court in Thomas said that even if acknowledged, an affidavit is not eligible for recordation because it is not a "deed, mortgage or conveyance." Wyo. Stat. 34-18 (1957). Although this ignores the "certificates and instruments" language of Wyo. Stat. § 34-19 (1957), it is not apparent that the Wyoming Supreme Court would require a location certificate to be acknowledged before being entitled to recordation. But caution would suggest that Wyoming claim certificates should be acknowledged, as they are when combined with the affidavit required for lode claims. Wyo. Stat. § 30-6 (1957).

51. Doe v. Waterloo Mining Co., 70 F. 455 (9th Cir. 1895).
53. 9 Wyo. 297, 63 P. 580 (1901).
56. Sherlock v. Leighton, 9 Wyo. 311, 63 P. 934, 934-935 (1901).
57. Id., 63 P. at 934. This is because it is incumbent upon each party to an adverse proceeding under 30 U.S.C. § 30 (1964) to show affirmatively his own title, and where both parties fail to establish such title, the judgment of the court will be that neither party has title. Slothower v. Hunter, 15 Wyo. 189, 88 P. 36, 39-39 (1906); Iba v. Central Ass'n of Wyoming, 5 Wyo. 356, 40 P. 527, reh'g denied, 5 Wyo. 367, 42 P. 20 (1885).
cleared the record of the prior location so as to entitle Leighton to a judgment for possession,\textsuperscript{58} but even so, the alien could, apparently, defeat the subsequent claimant by becoming a naturalized citizen,\textsuperscript{59} if not by merely declaring his intention to become a citizen.\textsuperscript{60}

Wyoming follows the well recognized rule\textsuperscript{61} that a mining location may be made by an agent in behalf of his principal, even without the principal's knowledge, if the principal subsequently ratifies the act, or if there is a local rule authorizing it.\textsuperscript{62} Ratification can occur even as late as the trial of an adverse suit, as in \textit{Bergquist v. West Virginia-Wyoming Copper Co.},\textsuperscript{63} where a party was held to have ratified the act of its agent, even if the agent had no authority originally, when it offered in evidence and relied upon an additional certificate of location, signed in its name and recorded by one claiming to be its attorney. Similarly, one apparently holding the entire legal title to a location can, by joining others in conveying it, evidence the fact that he holds it partly in their interest.\textsuperscript{64}

**Performance of the Acts of Location**

We can now consider a broad topic which is easily labeled and readily subdivided into component elements traditionally set forth in what might be called "the preferred order." What constitutes the appropriation of public mineral lands is the topic, and the steps taken by one qualified to make such an appropriation, usually referred to collectively as the "acts of location," comprise the elements of a completed appropriation. Performance of all of the acts of location is required to perfect the entry and establish the appropriator's right to possession of the mineral deposit which he has discovered. It is therefore natural to assume that the acts of location will follow—rather than precede—the required discovery of a

\begin{itemize}
  \item \textsuperscript{58} Sherlock v. Leighton, 9 Wyo. 297, 63 P. 580, 584 (1901).
  \item \textsuperscript{59} Sherlock v. Leighton, 9 Wyo. 311, 63 P. 934 (1901), relying on Manuel v. Wulff, 152 U.S. 505 (1894).
  \item \textsuperscript{60} E. De Soto & A. Morrison, \textit{supra} note 31, at 394, citing Osterman v. Baldwin, 5 Wall. 116 (1867).
  \item \textsuperscript{61} \textit{See}, e.g., E. De Soto & A. Morrison, \textit{supra} note 31, at 61.
  \item \textsuperscript{62} Whiting v. Straup, 17 Wyo. 1, 95 P. 849, 854 (1908); cf. LeClair v. Hawley, 18 Wyo. 23, 102 P. 853, 859 (1909).
  \item \textsuperscript{63} 18 Wyo. 234, 106 P. 673, 684 (1910).
  \item \textsuperscript{64} \textit{Id.}, 106 P. at 681. In the case cited, however, the locator with the apparent legal title did not deny that he acted as agent for his co-locators, and the Court carefully limits its holding to the facts of the case.
\end{itemize}
valuable mineral deposit\textsuperscript{65} and that the acts of location should then proceed in a logical order:\textsuperscript{66} posting of notice; development of the discovery;\textsuperscript{67} marking of boundaries, and recording of the claim.

Indeed, there is good reason, at least with respect to lode claims,\textsuperscript{68} to expect the prospector to follow the preferred order, since the law contemplates that the discovery of a lead sufficient to justify further work will precede most digging and that upon such a discovery the prospector will post his claim.\textsuperscript{69} He will then dig in earnest, and as he

\textsuperscript{65} "[I]t may be said that discovery should chronologically precede the acts of location . . . ." Dean v. Omaha-Wyoming Oil Co., 21 Wyo. 133, 128 P. 881, 883 (1913).

\textsuperscript{66} The statutes seem, in fact, to command that the acts of location await discovery, and that the recording of claims await the performance of the other acts of location. "[N]o location of a mining claim shall be made until the vein or lode discovery of the veins or lodes therein shall have been located." 30 U.S.C. § 23 (1964). "Before the filing of a location certificate in the office of the county clerk and ex officio register of deeds, the discoverer of any lode, vein or fissure shall designate the location thereof . . . (1) By sinking a shaft . . .; (2) By posting at the point of discovery . . . a plain sign or notice . . .; (3) By marking the surface boundaries of the claim . . .; provided, that no right to such lode or claim or its possession or enjoyment, shall be given to any person or persons, unless such person or persons shall have recorded said claim mineral bearing rock in place." Wyo. STAT. § 30-3 (1957) (emphasis supplied). As to placer claims, which are "subject to entry . . . under like circumstances and conditions . . . as are provided for lode claims," 30 U.S.C. § 35 (1964), the discoverer shall locate his claim, "before filing . . . [his] location certificate . . .: First, by securely fixing upon such claim a notice . . .; second, by designating the surface boundaries by substantial posts or stone monuments . . . ." Wyo. STAT. § 30-10 (1957). To accommodate these acts, the Wyoming statutes allow sixty days in which to sink the required shaft, Wyo. STAT. § 30-7 (1957), and record lode certificates. Wyo. STAT. § 30-1 (1957). Ninety days is allowed for the recording of placer certificates. Wyo. STAT. § 30-10 (1957).

\textsuperscript{67} Discovery work is necessary in Wyoming only for lode claims. Compare Wyo. STAT. §§ 30-3, 30-7 (1957), with Wyo. STAT. § 30-10 (1957).

\textsuperscript{68} See note 61 supra. The absence of discovery work requirements for placer claims can be explained on either or both of two grounds: (1) Since placer claims should be laid out "to conform as near as practicable with the United States system of public-land surveys, and the rectangular subdivisions of such surveys," 30 U.S.C. § 35 (1964), it is unnecessary to determine in advance of marking boundaries how the geological condition of rock in place dictates laying out one or more dimensions of the claim. Topography and surficial geology usually control the dimensions and boundaries of a placer claim. (2) The placer-claim statutes do not contemplate underground workings at any substantial depth, even after exploration and development lead to exploitation. Titanium Actynite Industries v. McLennan, 272 F.2d 667 (10th Cir. 1956); see also Sherwood v. Greer, supra note 2, at 24-25. In those states such as Idaho and Montana, where discovery work is required for placer claims, the intention is apparently "to demonstrate the good faith intention of the locator to claim the land for its mineral value and not for speculative purposes," 1 AMERICAN LAW OF MINING § 5.55, at 865 (1963), since the work is specified in terms of "value of labor performed or minimum excavation in cubic measurement." Id. at nn.28-29, supra.

\textsuperscript{69} The Wyoming statutes, like the earlier Colorado statutes from which the Wyoming statutes were apparently taken, specify the sinking of shafts upon lode claims before the posting of notice. Wyo. STAT. §§ 30-3(1) and (2) (1957) (first enacted in its present form in 1886); Colo. Rev. STAT. §§ 92-22-6(1)(a), (b), (c) (1963) (originally enacted in 1974). The more explicit provisions of Wyo. STAT. § 30-7 (1957), however, indicate that the order
exposes more mineralization (and, hopefully, the lode itself), the information necessary to determine the orientation of the axes of the claim will be developed.\textsuperscript{70} Only then can the boundaries of the claim be properly marked on the ground and the location accurately described for the purposes of constructive notice by recordation.\textsuperscript{71} But this approach assumes reasonably well-defined surface indications of mineralization, and while it may have suited the needs of pick-and-shovel prospectors, the needs have changed. The fact is that the search for large, non-outerropping, and sometimes disseminated orebodies dictates a new approach to which we believe the traditions of the text writers must yield.\textsuperscript{72} Since the courts have not demanded conformity to the preferred order,\textsuperscript{73} we shall also abandon it in favor of the order adopted by modern prospectors.

specified in Wyo. Stat. § 30-3 (1957) is either accidental or a recognition of the fact that digging may be necessary at the outset “to identify the type of location, \textit{i.e.}, lode or placer, by disclosing whether the mineral appears as rock in place or float rock.” 1 American Law of Mining § 5.55, at 865 (1963). Whether digging was actually the first step of prospectors in 1886, when the section was first enacted in approximately its present form, Law of Mar. 12, 1886, ch. 115, § 5, [1886] Wyo. Laws 440, is problematical; by the turn of the Century, when the Wyoming courts began to focus upon the problems of oil prospectors, it had become doubtful; today, it is seldom, in practice, the first step.

70. A lode “mining claim may equal but shall not exceed one thousand five hundred feet in length along the vein or lode . . . . No claim shall extend more than three hundred feet on each side of the middle of the vein at the surface . . . .” 30 U.S.C. § 23 (1964) (emphasis added). Compare Wyo. Stat. §§ 30-24, 30-25 (1957).

71. This is especially true in Wyoming where the width of a lode claim is limited to 300 feet “on each side of the discovery shaft, the discovery shaft being always equally distant from the side lines” of the claim. Wyo. Stat. § 30-25 (1957). Compare Wyo. Stat. § 30-1(4) and (5) (1957), which require the record of a lode claim to indicate “the length of the claim along the vein measured each way from the center of the discovery shaft, and the general course of the vein as far as it is known,” and “the amount of surface ground claimed on either side of the center of the discovery shaft or discovery workings.”

72. If we followed the traditional approach, we would first discuss the rights of a prospector in advance of discovery, then consider what constitutes a sufficient discovery, and conclude with each of the acts of location in the order listed in the text, supra, at note 66. Such is the approach adopted in 1–2 American Law of Mining §§ 4.1-6.43 (1960) and in the earlier treatises. 2 C. Lindley, supra note 37, §§ 327–392; E. De Soto & A. Morrison, supra note 31, at 21–65; G. Costigan, American Mining Law §§ 40-46, 55-57 (1968); see also G. Martz, Cases on Natural Resources 529-587 (1961). Mr. Martz discusses the interest of a locator before and after discovery separately, id. at 588-594. Professor Bloomenthal, on the other hand, utilizes the traditional approach. F. Trelease, H. Bloomenthal & J. Geraud, Cases and Materials on Natural Resources 447-533 (1955).

73. “[W]hile it may be said that discovery should chronologically precede the acts of location it may follow, instead of preceding, such acts, and will be held good as against all who have not acquired intervening rights . . . .” Dean v. Omaha-Wyoming Oil Co. 21 Wyo. 153, 128 P. 381, 383 (1913). “The statute on its face seems positive in the requirement that the discovery work be done prior to the filing of the location certificate, but this view has long since been tempered by judicial decision.” Globe Mining Co. v. Anderson, 78 Wyo. 17, 318 P.2d 373, 382 (1957). Though “location must
Accordingly, we will postpone our discussion of discovery and the nature of the locator’s interest at various times before and after discovery until we have considered the acts of location in the order preferred by miners: posting of notice; recording of the claim; marking of boundaries, and development in anticipation of the hoped-for discovery. No doubt this places “the cart before the horse,” but it is the prospector who takes the risk that someone else will subsequently establish a valid claim superior to his. The law as to the sufficiency of the performance of the individual acts of location, on the other hand, is unaffected by the order in which they are accomplished, and our accommodation with the Twentieth Century disturbs only tradition.

1. Posting of Notice

The statutes of some jurisdictions require the notice posted on a lode mining claim to contain information which cannot ordinarily be determined until after completion of

rest upon discovery, and will not be complete until a discovery is made, it is not required, in the absence of intervening rights, that discovery shall precede the other acts of location. If made prior to any intervening rights, though subsequent to marking the boundaries and recording the claim, the location, if otherwise good, will be validated at least from the date of discovery.” Whiting v. Straup, 17 Wyo. 1, 95 P. 849, 854 (1908). See also 1 AMERICAN LAW OF MINING § 5.49 (1963).

74. It is difficult to decide just what order miners follow in practice, since the almost simultaneous recording of hundreds of certificates (all bearing the date of recording as the date of discovery), which is occasionally seen, leads us to suspect that in such instances recording preceded the posting of notices (which was probably done as a part of a subsequent boundary-marking program). But such paper locations work an obvious fraud on the prospector then on the ground, who will find it difficult to prove that he posted notices first (in the face of the prima facie evidence recorded in the office of the county clerk and ex officio register of deeds), and we have therefore selected the more justifiable order in which recording follows posting. The fact is that a block of claims can be best laid out first in the office and then in the field. But this fact should not promote the filing of certificates in the county clerks’ office to the head of the list of required acts of location. The intent to segregate a certain portion of the public domain should be manifested by acts which appropriate the ground with such publicity as is due to the rights of third parties working in the field rather than in the courthouse. See Yosemite Gold Mining Co. v. Emerson, 208 U.S. 25, 31 (1906). See also Bergquist v. West Virginia-Wyoming Copper Co., 18 Wyo. 234, 106 P. 673, 678 (1910), where the Court said:

[T]he [posted] notice has no relation to the location certificate, except that it is to be posted before the filing of the latter . . . . [T]he requirement of our statute as to posting notice is . . . . the first step in appropriating . . . [a “discovered lode”], the purpose of which was to show the discoverer’s intention to claim the vein to the extent described, and to warn others that it had been appropriated.


76. As occurred in Whiting v. Straup, 17 Wyo. 1, 95 P. 849 (1908).

77. The treatises, especially 1 AMERICAN LAW OF MINING §§ 5.45-5.80 (1963), give detailed attention to the various acts of location; our purpose here is solely to examine some of the features of the Wyoming law pertaining thereto.
discovery work. In these states, "the posted and recorded notices are essentially identical and contain detailed descriptions of the land claimed." In theory then, posting in such jurisdictions would have to occur after the discovery work, if not after marking of the boundaries, and it is difficult to see how the notice would accomplish its intended function. But the Wyoming statute creates no such problems, and a notice posted in Wyoming will be sufficient if it gives on-the-ground publicity to later corners of the prospector's intent to occupy and hold the ground. Such is, in fact, the sole office of the notice required in Wyoming, which need contain only "the name of the lode or claim, the name of the discoverer and locator, and the date of . . . discovery." So it is not

78. E.g., Arizona: ARIZ. REV. STAT. §§ 27-202A (1956) (requires length and width of claim, general course of claim, and distance from discovery point to each end of the claim). See 1 AMERICAN LAW OF MINING § 5.51 at 841-844 (1963), which discusses similar statutes of other states, and classifies the Arizona statute with that of New Mexico, NEW MEX. REV. STAT. § 63-2-1 (1953), which requires only a description of the claim by reference to some natural object or permanent monument as will identify the claim. The latter statute, however, is quite different from the Arizona-type statute, and requires only what 30 U.S.C. § 23 (1964) requires of a recorded notice: no discovery work is necessary to tie the claim to a natural object or permanent monument, and such a requirement should require little delay in posting the necessary notice.

79. 1 AMERICAN LAW OF MINING § 5.51 at 888 (1963). Idaho requires a preliminary notice, IDAHO CODE §§ 47-602, 47-617 (1947), and, in the case of lode claims, a duplicate of the location certificate, which must be posted within ten days. IDAHO CODE § 47-602 (1947). No other state has this sort of double-notice provision.

80. See note 74 supra.


Any person or persons discovering and claiming any . . . lode . . . shall place a notice of such claim upon such . . . lode, giving thereon date of discovery, name of lode, direction and boundaries of claims and the name or names of the person or persons claiming such ledge or lode . . .

From repeal of the 1869 law until the enactment of the present provision in 1886, Wyoming had no statutory posting requirement.

82. See Hagerman v. Thompson, 68 Wyo. 515, 235 P.2d 750, 755-756 (1951); Columbia Copper Mining Co. v. Duchess Mining, Milling & Smelting Co., 13 Wyo. 244, 79 P. 385, 387 (1905), holding a very simple notice, which also contained surpluseage as to the length, width, and direction of the claim, sufficient. Cf. Bergquist v. West Virginia-Wyoming Copper Co., 32 Wyo. 244, 96 P. 573, 678 (1910).

83. WYO. STAT. § 30-3 (2) (1957). The Wyoming placer statute, WYO. STAT. § 30-10 (1957), which dates from the Law of Mar. 12, 1886, ch. 115, § 9, [1886] Wyo. Laws 441, without significant change [it was modified slightly by the Law of Mar. 6, 1888, ch. 40, § 22, [1888] Wyo. Laws 90], specifies that the notice shall contain "the name of the claim, the name of the locator or locators, the date of the discovery, and the number of feet or acres claimed." The latter requirement recognizes that the size of a placer claim may depend upon the intent of a group of locators. See text at notes 82-84, supra. See also Hagerman v. Thompson, 68 Wyo. 515, 235 P.2d 750 (1951).
surprising to find that in Wyoming, as in states with similar "simple-form" provisions, it has been said that:

In view of the object of the notice, as well under the statute as by the early custom, it is the universal rule, where neither the notice or a copy of it is required to be recorded, that it is to be liberally construed, and its sufficiency, at least to accomplish the purpose intended, is a question of fact.

The effect of a sufficient notice is to hold the area posted for a reasonable period of time during which the discovery work can be completed and the boundaries marked. So long as the ground is actually occupied for these purposes, there is no apparent reason why the statutes should insist, as they do, that the persons posting such notice qualify as "discoverers," but whether a discovery has been made or not, the extent to which the posted notice serves to segregate the surrounding area from competing locations is a matter of considerable importance, at least to other prospectors.

It is easy enough to conclude that the notice holds up to the maximum amount of ground allowed by law to one claim, positioned wherever the prospector's discovery work discloses that it should be, unless the locator limits his freedom to so position his claim by specifying particular directions and

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86. Union Mining & Milling Co. v. Leich, 24 Wash. 585, 64 P. 829 (1901); cf. Ingemarson v. Coffey, 41 Colo. 407, 92 P. 908 (1907); Bergquist v. West Virginia-Wyoming Copper Co., 18 Wyo. 234, 106 P. 673 (1910); 1 American Law of Mining § 5.50 (1963).
87. Wyo. Stat. §§ 30-5(2), 30-10 (1957). The latter section, relating to placer claims, refers to "locators" rather than "discoverer and locator," the term used in the former section, with reference to lode claims, but since a placer claim notice must also specify a date of discovery, and the term "locator" implies a completed location, the effect of the two sections would seem to be identical. See Bergquist v. West Virginia-Wyoming Copper Co., 18 Wyo. 234, 106 P. 673, 679-680 (1910); but see id., 106 P. at 686 (Scott, J., concurring), to the effect that the difference between a discoverer and a locator is largely one of attitude.
88. See note 87 supra, and Phillips v. Brill, 17 Wyo. 26, 95 P. 856 (1908), in which the Court raised no objection to a notice posted in advance of discovery. But discussion of the rights of locators in advance of discovery must be postponed to a subsequent article.
89. There is a comprehensive discussion of the significance of this point in 1 American Law of Mining § 5.50 at 832-835 (1963). See also Bergquist v. West Virginia-Wyoming Copper Co., 18 Wyo. 234, 106 P. 673, 683-684 (1910).
90. Sanders v. Noble, 22 Mont. 110, 55 P. 1037 (1899).
less-than-maximum distances in his notice,91 and to regard the time within which he must decide where to position his claim as limited by the time allowed by the statute92 to mark the boundaries of the claim.93 But should the same rules apply where the prospector posts notices for a block of claims numbering from two into the hundreds? It would seem that the use of a block of claims, in which each posted notice contains direction and distance specifications governing dimensions, is justified under modern conditions, even if such information is surplusage,94 but that the unique provisions of the Wyoming statute95 make it difficult in this situation thereafter to maintain freedom to choose where prospecting will be undertaken. Once the locator has limited his freedom to select the ultimate position of his claim, he has also limited his freedom to select the position of his discovery shaft.96 To the extent, however, that posted notices define the position to be assumed by the claims when marked on the ground, they are, from the point of view of later comers, preferable to an indefinite notice which claims, in effect, the right ultimately to lay out claim boundaries anywhere in a 1500-foot radius. Where notices posted for a block of claims are intended by the locator to define the ground which can ultimately be included in claims perfected by him, it is apparent that a well-defined block of claims specified in posted notices accomplishes much the same

91. Erhardt v. Boaro, 113 U.S. 527 (1885). Compare Wiltsee v. King of Arizona Mining & Milling Co., 7 Ariz. 95, 60 P. 896 (1900). In Erhardt, the locator claimed 1500 feet on the lode, and the Court limited him to 750 feet each way from the notice; under the rule of Sanders v. Noble, 22 Mont. 110, 55 P. 1097 (1899), a slightly different wording, such as "1500 feet from this point on this lode," might have gained greater freedom in positioning the claim.
93. Since Wyoming allows sixty days to complete discovery work, Wyo. Stat. §§ 30-7 (1957), mark boundaries, Wyo. Stat. § 30-3 (3) (1957), and record the claim, Wyo. Stat. § 30-1 (1957), it is unnecessary to distinguish between these various acts for this purpose, as it would be in Colorado, for example, where the locator has three months to record, Colo. Rev. Stat. § 92-22-3 (1963), and to mark boundaries, Colo. Rev. Stat. § 92-22-6(1)(d) (1963), but only sixty days to sink a shaft, Colo. Rev. Stat. § 92-22-9 (1963). Colorado, however, now provides an alternative to the discovery shaft, and apparently allows three months to complete the map which may be filed in lieu of sinking a shaft. Colo. Rev. Stat. § 92-22-6(2) (1963).
94. See note 82 supra, and compare Wyo. Stat. § 30-3 (2) (1957).
96. See note 95 supra. But see Bergquist v. West Virginia-Wyoming Copper Co., 18 Wyo. 234, 106 P. 673, 685-687 (1910) (concurring opinion by Scott, J.), which indicates that the posting of notice may itself limit the locator's ability to select the position of his discovery shaft.
purpose as a lesser number of indefinite notices, especially if the target is an as yet undefined massive orebody buried at some depth. Furthermore, later comers are much better advised as to what ground can be safely prospected in the former case than in the latter. If an indefinite notice is to be accorded wide privileges, definite notices, each of which claims a lesser privilege, ought to be accorded a similar effect, at least to the extent that the locator actively pursues work on his claims,97 since sixty days at most are involved.

Although the notice may be posted anywhere "upon" a Wyoming placer claim,98 a lode claim notice must be posted "at the point of discovery, on the surface."99 This latter rule might be regarded as having been relaxed in the Bergquist case,100 where the author of the opinion held two notices intended to relocate a prior attempted location, the Little Joe, one on a paper placed in the ridge log of a shaft house, and one on a wood slab placed on top of the old shaft, sufficient both as to the manner and as to the place of posting. The latter resulted from the fact that both the Little Joe locators and the other parties to the dispute, the Merry Christmas locators, posted their notice at the same place, fifty and sixty feet, respectively, from the discovery shafts sunk on the Little Joe and the Merry Christmas claims. In these circumstances, it was deemed unnecessary to decide whether the statute requires posting at the point of discovery or at the place where the discovery shaft is sunk, in the event they are different. But the concurring opinion in Bergquist101 disagrees on this point, and would hold a notice posted anywhere other than at the point selected for the discovery shaft void. Absent any other authority in Wyoming, the notice should be posted at the place selected as the discovery point where the discovery working will be located.102

97. See Whiting v. Straup, 17 Wyo. 1, 95 P. 849, 855 (1908), to the effect that the "mere posting of notice" and even marking of the boundaries on the ground will not prevent peaceable entry by others upon land not actually occupied or being worked by the first to attempt location.
98. Wyo. Stat. § 30-10 (1957). See Scoggin v. Miller, 64 Wyo. 206, 189 P.2d 677 (1948), where the notices were apparently placed on stakes at the corners of the various placer claims there involved.
100. 15 Wyo. 234, 106 P. 873 (1910).
101. Id. 106 P. at 885, 886.
102. But see 1 American Law of Mining § 5.52 at 846-847 (1963) : Point of discovery "refers to the original discovery of mineral upon the ground, not to the point where the discovery shaft is later sunk or other development work is done."
2. Recording of Claim

The function of the record of a mining claim is so similar to that of the posted notice that the tendency of the prospector to think of the location certificate simply as the recorded copy of his posted notice is understandable. But while the notice is intended to give actual notice on the ground to other prospectors, as we have already seen, the recorded certificate is intended both to give constructive notice of the existence and extent of the location and to preserve a record of the claim. Posting a duplicate copy of the certificate on the ground will, of course, satisfy the requirements of the Wyoming statutes governing posted notices, but a notice containing just enough to satisfy those

103. The term comes from the Federal statute, 30 U.S.C. § 28 (1964), which requires that "all records of mining claims made after May 10, 1872, shall contain the name or names of the locators, the date of location, and such a description of the claim or claims located by reference to some natural object or permanent monument as will identify the claim."

104. This term appears in, and is defined by Wyo. Stat. §§ 30-1 and 30-10 (1957) as to lodes and placer, respectively. The location certificate recorded for a claim is not an affidavit, although an affidavit may be made a part of such a certificate. See Wyo. Stat. § 30-6 (1957) and, as to acknowledgment, note 49 supra.

105. See, e.g., Globe Mining Co. v. Anderson, 78 Wyo. 17, 318 P.2d 373, 383-385 (1957), where the Court reports that the plaintiff recorded his location notices, and subsequently recorded "amended location certificates." The trial court, upon a finding that the only documents properly recorded were the amended certificates, faulted the plaintiff on this point. The Supreme Court held that the recording of location notices is a nullity, but that the purpose of the recording requirement for location certificates is to give constructive notice concerning the acts claimed to have been performed. Where, as the court found in Globe, there was actual notice, the constructive notice is unnecessary and the defendant cannot raise the defective recording against the plaintiff. Of course, in some states, the recorded certificate is a copy of the posted notice. See text at notes 78-79 supra.

106. Globe Mining Co. v. Anderson, 78 Wyo. 17, 318 P.2d 373, 384 (1957): "[A] significant function of the record . . . of the certificate is the constructive notice thereby imparted . . . * * [T]he primary purpose of requiring mining claim location certificates to be recorded is the imparting of permanent constructive notice concerning the acts claimed to have been performed by the locator."

107. "[L]ocation certificates . . . on record . . . [take] the place of the location notices, rendering proof of the posting of the notices unnecessary as against . . . adverse claimants." Bergquist v. West Virginia-Wyoming Copper Co., 18 Wyo. 254, 106 P. 673, 685 (1910). When filed in the office of the county clerk, the certificate takes the place of the posted notice "for the reason that the certificate contains, in addition to other data, precisely the same things which the posted notice is required to contain." Id., 106 P. at 686 (Scott, J. concurring). But see the extraordinary decision in Ross Stegman, A-30812, G.P.S. (Mining) SO-1967-37 (Nov. 21, 1967), in which it was held that the posted notice must survive recording of the claim.

108. Compare the requirements of Wyo. Stat. §§ 30-1(1), (2), and (3) (1957) with Wyo. Stat. § 30-3(2) (1957), as to lode claims, and as to placer claims, compare Wyo. Stat. §§ 30-10(1), (2) and (3) (1957) with Wyo. Stat. § 30-10(5) (1957). In each case, the certificate must contain the name of the claim, the names of the locators, and the date of location, and the notice must contain the name of the claim, the names of the locators (as to lodes, the "discoverers and locators," but see notes 87-88 supra); and the date of discovery. See also note 107 supra.
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statutes will not qualify for recording as the record of the claim. 109 Why should this be so?

We think the answer to this question is that the recorded certificate is intended to replace the boundary markers, as well as the posted notice, in case any or all of them should be lost or destroyed, 110 as well as to provide constructive notice, and a detailed description 111 is therefore required, in

109. In addition to the information required in the posted notices, the lode locator must include in his location certificate the following "facts" required by Wyo. Stat. §§ 30-1(4), (5), and (6) (1957):

The length of the claim along the vein measured each way from the center of the discovery shaft, and the general course of the vein as far as it is known;

The amount of surface ground claimed on either side of the center of the discovery shaft or discovery workings;

A description of the claim by such designation of natural or fixed object, or if upon ground surveyed by the United States system of land survey, by reference to section or quarter section corners, as shall identify the claim beyond question.

Although the present statute carries forward an erroneous substitution of the word "object" for "objects" which occurred in Wyo. Stat. § 2546 (1899), this statute has not otherwise changed since its adoption in the Law of Mar. 6, 1888, ch. 40, § 15, [1888] Wyo. Laws 87-88, and is not substantially different from the prior Law of Mar. 12, 1886, ch. 116, § 3, [1886] Wyo. Laws 439, which it replaces. Likewise, in the case of a placer location, the locator must include in his certificate the following, required by Wyo. Stat. §§ 30-10(4) and (5) (1957):

The number of feet or acres claimed.

A description of the claim by such designation of natural or fixed objects as shall identify the claim beyond question.


110. Once properly set, boundary markers have performed their original office and their subsequent loss or destruction other than by the locator does not vitiate the claim. Scoggins v. Miller, 64 Wyo. 206, 189 P.2d 677, 685 (1948), quoting E. De Soto & A. Morrison, supra note 31, at 60.

111. Wyo. Stat. §§ 30-1(6), 30-10(5) (1957). Both lodes and placers are to be described by such designation of natural or fixed objects as shall identify the claim beyond question, and in the case of lodes, "by reference to section or quarter section corners" if the claim is "upon ground surveyed by the United States system of land survey," Wyo. Stat. § 30-1(6) (1957), and "any certificate of the location of a lode claim which shall not fully contain all the requirements named in . . . [Wyo. Stat. § 30-1 (1957)], together with such other description as shall identify the lode or claim with reasonable certainty, shall be void." Wyo. Stat. § 30-2 (1957). Furthermore, "no location certificate shall contain more than one claim or location, whether the location be made by one or more locators, and any location certificate that contains upon its face more than one location claim shall be absolutely void, except as to the first location named and described therein, and in case more than one claim or location is described together so that the first one can not be distinguished from the others, the certificate of location shall be void." Wyo. Stat. § 30-7 (1957). Both statutes just quoted are substantially unchanged from their original enactment in the Law of Mar. 12, 1886, ch. 116, §§ 4, 16, [1886] Wyo. Laws 439, 445. But these requirements are, for all practical purposes, no different than the requirement found in 30 U.S.C. § 28 (1964). The addition of the language referring to the United States system of land surveys, in the case of lodes,
addition to the information found in the posted notice. The prospector, however, often seems to be primarily interested in preserving the posted notice of his claim, and he therefore hastens to record it, without regard to the other function of the record, which is to inform all concerned where and how the claim has been located. But if the prospector records a certificate which accomplishes both functions, his haste to record is justified by the practical advantages of proof which the record offers, in case of dispute, over other kinds of evidence. So what does it matter that a complete certificate is recorded before the boundaries are marked on the ground? If the boundaries are marked, in conformity with the description contained in the certificate, within the time allowed by law, and before the initiation of an

is in accordance with 30 U.S.C. § 34 (1964): "The description of vein or lode claims upon surveyed lands shall designate the location of the claims with reference to the lines of the public survey, but need not conform therewith." Placer claims, however, shall conform to the legal subdivisions of the public lands, where surveyed, and "shall conform as near as practicable" with the system of public-land surveys, and the rectangular subdivisions of such surveys, unless this cannot be done. 30 U.S.C. § 35 (1964). Strictly construed, these Federal statutes relate to surveys for patent, rather than location procedures, but the Wyoming statutes, by requiring attention to these details upon location, facilitate surveys and patenting as well as the desired constructive notice. Cf. 43 C.F.R. § 3414.1 (1967).

112. See notes 108 and 109 supra. See also Masek v. Ostlund, 358 P.2d 100, 103-104 (1960), with respect to discrepancies between the boundaries as staked and as described in location certificates.

113. See note 111 supra.

114. "The length of the claim along the vein measured each way from the center of the discovery shaft, and the general course of the vein as far as it is known," WY0. STAT. § 30-1(4) (1957), and "the amount of surface ground claims to either side of the shaft or discovery workings," WY0. STAT. § 30-1(5) (1957), must be given. Compare WY0. STAT. § 30-25 (1957). In accordance with these statutes, the Wyoming Supreme Court held, in Slocrother v. Hunter, 15 Wyo. 189, 88 P. 36, 39 (1906), that a certificate "is fatally defective and void" where it fails to give the required lengths or to mention the discovery shaft at all, and that the claim falls with it. But see Bergquist v. West Virginia-Wyoming Copper Co., 15 Wyo. 294, 106 P. 676, 677 (1910), involving the same certificate, where it was held that the imperfect certificate was not absolutely void, since it could be amended, and when so amended, "the amendment takes effect with the original as of the date of the latter." Id. (Emphasis added). As to placer claims, WY0. STAT. § 30-10 (1957) requires that the "number of feet or acres" claimed must be stated. This requirement serves the same function as the provisions of WY0. STAT. §§ 30-1(4) and (5) (1957) just discussed serve for lode claims.

115. See Note, The Description of a Mining Claim, 9 WY0. L.J. 224 (1955); cf. Moran, Procedure in Locating and Patenting a Mining Claim, 14 WY0. L.J. 123, 121 (1960).

116. Globe Mining Co. v. Anderson, 78 Wyo. 17, 318 P.2d 373 (1957). But cf. Masek v. Ostlund, 358 P.2d 100, 104 (1960) (Harnsberger, J., dissenting), where it is pointed out that "where there is conflict between markings on the ground in description in the recorded location notice, the markings control, if they can be definitely located or their location can be clearly ascertained." (Emphasis by Harnsberger, J.)

117. Globe Mining Co. v. Anderson, 78 Wyo. 17, 318 P.2d 373, 382 (1957). See also the other cases cited in note 73 supra.
intervening right, no one is prejudiced.\textsuperscript{118} But this does not mean that the certificate should substitute for the other acts of location which, if done with the diligence required by law, serve to give actual notice of occupation and appropriation. In sum, neither the constructive notice nor the preserving of a record of a claim, for which the statutes provide, serves the function of actual notice which the law requires on the ground when the appropriation is being initiated.\textsuperscript{119} This, we submit, is why the Wyoming statutes condition the right to record on the giving of actual notice by completion of the other acts of location.\textsuperscript{120}

So understood, and assuming that the rush to record is not an effort to defeat a prior appropriator through the device of a "paper" location, the prospector's natural tendency to record his claim as early as possible can be harmonized with the statutes, provided that his certificate contains the required information without which it is, and should be, void.\textsuperscript{121} That the courts occasionally seem to temper the harshness of the rule through liberal construction in favor of a good-faith locator is merely recognition of the fact that what constitutes a sufficient certificate depends upon the circumstances present in each particular case.\textsuperscript{122} A liberal construction does not

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\item 118. Columbia Copper Mining Co. v. Duchess Mining, Milling & Smelting Co., 13 Wyo. 244, 79 P. 385, 387 (1905).
\item 119. See note 82 supra.
\item 121. See note 114 supra.
\item 122. See, e.g., Hagerman v. Thompson, 68 Wyo. 515, 235 P.2d 750 (1951). This was a quiet title action brought by a senior locator to quiet title to ground subsequently claimed by a junior locator. The defendant junior locator claimed that the plaintiff's prior location was void for insufficient description of the land, failure to state the number of acres claimed, and failure to state the name of the claim. The facts showed that the plaintiff had apparently filed a location certificate in a timely fashion but had omitted the name of the claim and had described the claim as "S.E.4 NE4 NE4 S.E. 21 N.W. 4 S.W. 22 Section 22-21." The certificate further stated that the claim was to be known as the Bentonite Placer Mining Claim. Notwithstanding this recital in the certificate, the name of the claim given in the prospectus was "Little Side." In affirming a judgment for the plaintiff senior locator, the Court said that the location was merely defective and was cured as to the subsequent locator. The description, the Court said, was incorrectly recited but nevertheless was reasonably decipherable. Further, the defective designation of the ground by legal subdivisions was cured by a correct statement of the description in an assessment work affidavit filed by the plaintiff. The Court found that at any rate the defendant knew and understood the description. It further appeared that the description of the ground was cured by an amended certificate filed subsequent to the defendant's location of the same ground. The amended certificate (referred to by the Court as an amended location notice) claimed the Little Side and asserted claim to 120 acres of ground with a proper description. The Court stated that the
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after all, interfere with the rights of a second prospector who had, or should have had, notice of the prior location, either by actual notice through the performance of the other acts of location or by constructive notice of record. 123

3. Marking of Boundaries

The Federal statute requires simply that a mining claim "must be distinctly marked on the ground so that its boundaries can be readily traced." 124 It would seem from this that claims must be physically segregated from the public domain and that other prospectors are entitled to know what ground is already appropriated. 125 In the case of lode claims, of course, claim boundaries define considerably more than the surface acreage appropriated for mining purposes. 126 The emphasis on ability to "trace" the boundaries is reason enough

defects in the original were not such as to make it void and that the amended certificate, which was not, in this case, filed for the purpose of taking in new ground, therefore related back to the original certificate even in the face of the intervening location of the defendant. See also Scooggins v. Miller, 64 Wyo. 206, 189 P.2d 677 (1948).

123. "Of course, each case must be determined on its own facts; and a locater who fails to record his location certificate inevitably imperils his rights to the claim as against any subsequent innocent person who is not informed either actually or constructively of the location." Globe Mining Co. v. Anderson, 76 Wyo. 15, 218 P.2d 272, 285 (1955) (emphasis added).

124. 30 U.S.C. § 28 (1964). As to placer claims, the Wyoming statute supplementing the Federal statute is equally simple: "[T]he discoverer shall locate his claim... by designating the surface boundaries by substantial posts or stone monuments at each corner of the claim." Law of Mar. 3, 1888, ch. 40, § 22, [1888] Wyo. Laws 60; Wyo. STAT. § 30-10(5) (1967). The earlier Law of Mar. 12, 1886, ch. 115, § 9, [1886] Wyo. Laws 441-442, provided that "the discoverer shall locate his claim... by designating the surface boundaries by substantial posts, one at each corner of the claim. In localities where timber cannot be found, or where such corners or angles are of rocky surface, such monuments may consist of mounds of stone three feet high and three feet at the base." The 1886 provision is similar to the present provision for lode claims found in Wyo. STAT. § 30-3(3) (1957) which, although it dates from the Law of Mar. 6, 1888, ch. 40, § 17, [1888] Wyo. Laws 68, differs very little from the Law of Mar. 12, 1886, ch. 115, § 5, [1886] Wyo. Laws 440. Wyo. STAT. § 30-3(3)(1957) provides that the surface boundaries of lode claims "shall be marked by six substantial monuments of stone or posts, hewed or marked on the side or sides, which face is [in?] toward the claim, and sunk in the ground, one at each corner, and one at the center of each side line, and when thus marking the boundaries of a claim, if any one or more of such posts or monuments of stone shall fall, by necessity, upon precipitous ground, when the proper placing of it is impracticable or dangerous to life or limb, it shall be lawful to place such post or monument of stone at the nearest point properly marked to designate its right place."

125. Bergquist v. West Virginia-Wyoming Copper Co., 18 Wyo. 234, 106 P. 673, 680 (1910); see also 1 American Law of Mining § 5.64, at 875 (1963).

126. See 30 U.S.C. § 26 (1964), and compare 30 U.S.C. § 23 (1964). The extra-lateral right accorded to lode claims in Section 26 has its parallel in Wyo. STAT. § 30-8 (1957), and both Section 25 of the Federal law and Wyo. STAT. §§ 30-14, 30-11, provide for the same, 30-26, 30-26. The marking requirements are of particular importance where lode claims are concerned. Cf. 43 C.F.R. §§ 3411.3-3141.5, 3412.1 (1967).
for the general rule that, in case of discrepancy, the monuments as located on the ground control over the description found in the recorded location certificate. But how can we explain the equally well-recognized rule that obliteration of boundary markings will not vitiate the constructive notice provided by the record of a location? The answer is that this rule cannot be explained, unless we distinguish between the two functions of marked boundaries.

A cursory examination of the cases would indicate that the principal purpose of the boundary marking requirement is to give actual notice to other prospectors of the position and extent of the location. This notice function is important, but the tendency of the courts to adopt a liberal construction of the statute in order to protect prior good-faith locators in cases involving obliterated markings and discrepancies between boundaries as marked on the ground and as described of record has caused prospectors to conclude that the marking of boundaries is simply one of the acts of location which evidence the locator's intent to appropriate public lands and that the designation of a location, so important to the initiation of private rights on the public


129. Hagerman v. Thompson, 68 Wyo. 515, 235 P.2d 750 (1951); Scoggins v. Miller, 64 Wyo. 206, 189 P.2d 677 (1948); cf. 1 American Law of Mining § 5.64, at 875-876 (1963) and Masek v. Ostlund, 358 P.2d 100 (Wyo. 1960).

130. The good faith of the locator is of utmost importance. Courts will refuse to extend the protection of the rule to prior locators where there is little or no evidence that the boundaries were ever marked. See, e.g., Vevelstad v. Flynn, 16 Alaska 83, 230 P.2d 695 (9th Cir. 1951), aff'd Flynn v. Vevelstad, 14 Alaska 557, 119 F. Supp. 93 (D. Alaska 1954).

131. See the cases cited in note 128 supra.

132. E.g., Globe Mining Co. v. Anderson, 78 Wyo. 17, 318 P.2d 373 (1957). In this case, the Court considered the adequacy of the marking of boundaries by the plaintiff. Relying on evidence that the defendant knew generally of the plaintiff's claims; that he had access to public records and consulted them; that the records disclosed the boundaries of the plaintiff's claims with reasonable certainty, and that the defendant had in fact found the boundaries on the ground, even though the recorded location notices showed discovery monuments located elsewhere than at the actual site of the discovery shafts, the Court said that the plaintiff, having actual knowledge of boundaries, was in no position to raise any question of defective marking.

133. This is the term used in Wyo. Stat. § 30-8 (1957). In Wyo. Stat. § 30-10 (1957), the term "locating" is used instead. It is significant that in some states, at least, placer claims need not be marked if they conform to the public-land system of surveys. See 1 American Law of Mining § 5.64 at 876 (1963); but see id. § 5.63, at 869. Clearly, substantial compliance with Wyo. Stat. § 30-10(5) (1957) is necessary. Scoggins v. Miller, 64 Wyo. 206, 189 P.2d 677 (1948). In Scoggins, the plaintiff asserted that the defendant...
domain, is not a continuing obligation. This may be so, insofar as most placer mining claims are concerned,134 but as to lode mining claims, at least, such a conclusion overlooks the other function of distinctly marked boundaries which has nothing to do with notice—actual or constructive—and which is in some ways more important.135

The location of an irregular tract [that is, a tract which does not conform to subdivisions of the public-land survey system] as a mining claim, whether lode or placer, segregates that land from the public domain and, for mining purposes, appropriates both the land and the mineral deposit136 as well. Because the monuments on the ground control both the appropriation and the extent to which an irregular portion of the public domain may be segregated and thereby withdrawn from other locations, entries, reservations, classifications, and withdrawals, the monuments identify the claim not only as against other prospectors but also as against the United States; without them, there may be no claim against the owner of the paramount title.137 In other words, although the recorded location certificate may serve as constructive notice against other prospectors, it is not equivalent to an appropriation "distinctly marked on the ground so that its boundaries can be readily traced"138 which can be maintained against the United States.139 It is, therefore, simply not true, as many miners assume, that the boundary markings of all mining

135. See note 126 supra.
136. The mineral deposit may "extend outside the vertical side lines of . . . surface locations." 30 U.S.C. § 26 (1964). The "exclusive right of possession and enjoyment of all of the surface included within the lines of . . . locations," granted by Section 26 of the Federal mining law, has been modified, as to claims located or validated after July 23, 1955, by 30 U.S.C. §§ 612, 613 (1964). Section 612(a) provides that mining claims "shall not be used, prior to issuance of patent therefor, for any purposes other than prospecting, mining or processing operations and uses reasonably incident thereto."
139. See note 137 supra. See also Masek v. Ostlund, 358 P.2d 100, 104 (Wyo. 1960) (Harnsberger, J., dissenting).
claims become unimportant at the instant a location certificate is recorded. This in itself, we believe, is sufficient reason to replace lost boundary markings, at least as often as annual labor is performed.\footnote{140. See 1 AMERICAN LAW OF MINING § 5.68 (1963). If the locator continues to represent his claim from year to year after location, the performance of the required annual labor takes over many of the actual notice functions performed at the outset by the acts of location. But annual labor, whether performed on or off the claim, is no substitute for identification of the ground segregated by location. But compare Hagerman v. Thompson, 68 Wyo. 515, 225 P.2d 750, 757-758 (1951), where the Court indicated that a faulty description can be corrected in an affidavit of annual labor.}

It has been said that constructive notice is the equivalent of actual notice to other prospectors of the existence and extent of a mining claim.\footnote{141. Western Standard Uranium Co. v. Thurston, 355 P.2d 377, 386 (Wyo. 1960), quoting Globe Mining Co. v. Anderson, 78 Wyo. 17, 318 P.2d 373, 384 (1957). It is true that marking boundaries serves much the same function as the posted notice, which need not contain a definitive description, and that the record of a location does contain a description which can substitute for lost boundary markers for purposes of constructive notice. See text at notes 110-112 supra.} If this is so, then either the one or the other will suffice for notice purposes, and constructive notice will be unnecessary where there is actual notice; conversely, where there is constructive notice, actual notice will be unnecessary. To the extent that the description in the recorded certificate coincides with the actual boundaries as marked on the ground, at least as to lode claims, there is no problem. But where the two are not identical, and the boundaries as marked on the ground are obliterated, nothing remains to serve as actual notice in the place of constructive notice which turned out to be inaccurate. The locator should therefore distinguish between the evidence of his location and the notice of his location. The boundary markers constitute the primary evidence\footnote{142. What constitutes sufficient marking is a much-litigated topic, 1 AMERICAN LAW OF MINING § 5.66 (1963), and Scoggins v. Miller, 64 Wyo. 206, 189 P.2d 677 (1948), is a typical case. In Scoggins, the plaintiffs contended, among other things, that the requirement of WYO. STAT. § 30-10 (1957) for “substantial posts” had not been met. It appeared that the actual posts used by defendant’s predecessors were four-by-four timbers thirty inches long. The court held these posts as “substantial,” saying that any state-law requirement for posts—such as minimum size—is likely to be an unreasonable invasion of Federal law, and, as such, invalid. The Court held that the state statute on the size of posts is directory rather than mandatory.} for which nothing else provides an equivalent substitute; the secondary evidence afforded by a recorded certificate is just that, and nothing more.

4. Development in Anticipation of Discovery

“The width of any lode claim located within Wyoming shall not exceed three hundred feet on each side of the dis-
covery shaft, the discovery shaft being always equally distant from the sidelines of the claims.”

Since it has been held that one claimant may take advantage of another’s failure to place discovery workings midway between the designated sidelines, insofar as the sideline farthest from the discovery workings is concerned, this unique provision of Wyoming law, whether justified or not, must be kept in mind throughout the performance of the acts of location. Furthermore, characterizing this provision of the Wyoming statutes as unique does not mean that it is completely unwarranted, since the Federal law expressly provides that “no [lode] claim shall extend more than three hundred feet on each side of the middle of the vein at the surface.” If the middle of the vein at the surface should lie along the long center-axis of the claim, there is no reason that the state cannot require the discovery shaft to be on the middle of the vein at the surface. If there is, instead of a vein appearing at the surface, buried “rock in place bearing . . . valuable deposits” of minerals, the state statute merely requires what the Federal


144. Globe Mining Co. v. Anderson, 78 Wyo. 17, 318 P.2d 373, 382 (1957): “[I]n no instance may a claim extend to more than 300 feet from the center point between the side lines. A deviation of the discovery shaft from the original center point cannot alter the position of the side line closest thereto, but automatically delimits the position of the other side line to a point ‘equally distant’ from the discovery shaft. * * * Plaintiff must lose that part of his claim which is in excess of the amount allowed by the statute.”


146. “[N]o useful purpose exists for the equidistance rule and . . . it creates constant confusion and difficulty to the miner . . . . [L]egislative reappraisal of this particular provision is long overdue.” Moran, Procedure in Location, and Patenting a Mining Claim, 14 Wyo. L.J. 123, 130 (1960).

147. See Slothower v. Hunter, 15 Wyo. 189, 88 P. 35, 39 (1906), in which a location certificate was held “fatally defective and void in that it fails to . . . mention the discovery shaft at all . . . . [T]he failure to so state renders the certificate void.” Compare Bergquist v. West Virginia-Wyoming Copper Co., 18 Wyo. 234, 106 P. 673 (1910), involving an amendment of the same certificate following the decision in the Slothower case.


law seems to contemplate: exposure of a mineral deposit in place on the long center-axis of a lode claim.\textsuperscript{151}

Exposing rock in place bearing valuable mineral deposits within the boundaries of a lode claim is by definition antecedent to the perfection of the claim by discovery within the limits thereof, and regardless of where this must occur, it must occur.\textsuperscript{152} So the discovery-work requirement creates but little burden on the prospector, unless a discovery can be established at the surface.\textsuperscript{153} Even in the latter case, however, some work is ordinarily necessary to show that the discovery is of rock \textit{in place},\textsuperscript{154} and it is, therefore, neither surprising nor unusual to find that the discovery-work requirement exists only with respect to lode claims.\textsuperscript{155}

Once it is understood that the purpose of the discovery-work requirement is to establish the discovery of valuable mineral deposits in place,\textsuperscript{156} it is not difficult to define the

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  \item \text{151.} See note 149 \textit{supra}, and compare 43 C.F.R. § 3411.4 (1967). But see United States v. Arizona Manganese Corp., 57 Interior Dec. 558 (1942), involving a "blanket lode," in which the Interior Department permitted a drill hole discovery on the side lines between two claims to sustain not just one but both claims.

  \item \text{152.} Columbia Copper Mining Co. v. Duchess Mining, Milling & Smelting Co., 13 Wyo. 244, 79 P. 355, 356 (1905); Dean v. Omaha-Wyoming Oil Co., 21 Wyo. 133, 138 P. 581, 582 (1918). See also infra at notes 187-188.

  \item \text{153.} Although discovery of ore "at the 'grass-roots'" is not impossible, it is more likely that a surface "discovery" will be either float-rock insufficient to justify a lode claim for rock in place or a placer deposit. See 1 \textit{American Law of Mining} § 4.24, at 629 (1960); \textit{cf. id.}, § 4.23.

  \item \text{154.} This is because the Wyoming statutes are specific in requiring that a shaft be sunk "upon the discovery lode or fissure," WYO. STAT. §§ 30-37(1), 30-7 (1967); that an "open cut ... shall cut the vein," WYO. STAT. § 30-6 (1957); that a tunnel "on the vein ... shall cut the vein," \textit{id.}, and that at least one drill-hole "in lieu of a discovery shaft, tunnel or pit" shall, "in the course thereof, ... cut or expose deposits of valuable minerals ... ." WYO. STAT. § 30-6(2) (1957). The latter statute, however, seems to recognize the fact that whether a drill hole has in fact cut a vein or rock in place is not readily determined unless a core-drill is used. See \textit{Note, Placer or Lode and First Locator Protection}, 15 \textit{Wyo. L.J.}, 176, 177 (1961). But since WYO. STAT. § 30-6 (1957) relates only to lode claims, the drill-hole statute must also contemplate exposure of rock in place.

  \item \text{155.} See notes 67 and 68 \textit{supra}.

  \item \text{156.} See \textit{Western Standard Uranium Co. v. Thurston}, 355 P.2d 377, 387 (Wyo. 1960), and 1 \textit{American Law of Mining} § 5.55 (1963). The latter also discusses some of the other purposes served by discovery work. Although the Wyoming statute does not contain the more explicit requirement of the COLO. REV. STAT. § 24-9-2-6(1)(b) (1969) (emphasis added), that the discovery shaft must be sunk "upon the lode to the depth of at least ten feet from the lowest part of the rim of the shaft at the surface, or deeper, if necessary to show a well defined crevice;" the mere completion of discovery workings to the minimum required dimensions, without exposure of the necessary mineral deposit in place, is not sufficient. See \textit{Western Standard Uranium Co. v. Thurston}, 355 P.2d 377 (Wyo. 1960); \textit{Globe Mining Co. v. Anderson}, 73 Wyo. 177, 218 P.2d 373 (1951). In the \textit{Globe} case makes it clear that a shaft sunk to the required depth need only expose the deposit, but avoids determining, as to open cuts, or pits, whether WYO. STAT. § 30-6 (1957) requires, in addition to exposure, that an open cut or pit "shall cut the vein ten feet in length." There is, however,
ways in which this can be done under state law\(^{157}\) within the sixty days allotted for this work.\(^{158}\) It is, however, more

as the Court recognized, no ambiguity in the requirement that an open cut or pit shall have a "face ten feet in height." Wyo. Stat. § 30-6 (1957). While tunnels must "cut the vein ten feet below the surface, measured from the bottom" of the tunnel, the "tunnel on the vein ten feet in length" language of Wyo. Stat. § 30-6 (1957), although ambiguous, would seem to mean tunnel is ten feet long, it would become open cut or exposed. The parts of Wyo. Stat. § 30-6 (1957) so far discussed date from the Law of Mar. 6, 1888, ch. 40, § 18, [1888] Wyo. Laws 88, without change. The questions discussed in Globe probably would not have arisen under the earlier Law of Mar. 12, 1886, ch. 115, § 5, [1886] Wyo. Laws 440, which provided "that any open cut, or cross cut, or tunnel, which shall cut a lode at the depth of ten feet at least below the surface, shall hold such lode the same as if a discovery shaft were sunk thereon, or an adit not less than ten feet along the lode from the point where such lode may be in any manner discovered, shall be equivalent to a discovery shaft." The 1888 law corrected the adit-tunnel ambiguity of the 1886 law, but expanded the open-cut exposure requirement to ten feet while creating the present ambiguity as to the length of exposure required in a tunnel. The various holdings in Globe as to discovery work may be summarized as follows: The exposure of rock in place bearing valuable mineral deposits in the lode is mandatory, but if that requirement is met, a "substantial compliance" test will be applied in determining whether the workings satisfy the prescribed dimensions.

157. The discovery-work requirement dates from the Law of Mar. 12, 1886, ch. 115, § 5, [1886] Wyo. Laws 440, and is found in Wyo. Stat. § 30-3(1) (1957): "Before the filing of a location certificate... , the discoverer of any lode, vein or fissure shall designate the location thereof... by sinking a shaft or open cut or drill..." This discovery requirement was changed in Wyo. Stat. § 25-48(1) (1899) ["loge or fissure to the depth of ten feet from the lowest part of the rim of such shaft at the surface."] It makes little difference what the workings are called if they are in fact "shafts." Compare Bergquist v. West Virginia-Wyoming Copper Co., 18 Wyo. 234, 106 P. 673, 685 (1910) ("location shaft... and 'location'... [are] to be understood as... meaning... discovery shaft") with Globe Mining Co. v. Anderson, 17, 318 P. 22, 23 (1930), where it was deemed important to identify workings as shafts rather than pits. Cf. note 156 supra. Wyo. Stat. § 30-6 (1957) was amended by the Law of Feb. 11, 1955, ch. 88, § 1, [1955] Wyo. Laws 77-79, to create an optional right in the discoverer of a mineral deposit located as a lode to drill a hole or holes, not less than 1 1/2 inches in diameter, aggregating at least fifty feet "in depth," no one of which "shall be less than ten (10) feet in depth" in lieu of the "tunnel or "pit" otherwise required by law." Wyo. Stat. §§ 30-6(1), 30-6(2) (1957). The reasons for enactment of such statute, the provisions of which are outlined in Note, 9 Wyo. L.J. 220, 222 (1955), are discussed in Western Standard Uranium Co. v. Thurston, 355 P.2d 377, 387-388 (Wyo. 1960), which dealt, however, only with the last paragraph of the 1955 law, relating to the filing of pits dug before the effective date of the law and the drilling of holes in lieu thereof by one desiring to avail himself of the provisions of the new law. Cf. note 177 infra.

158. The discoverer of any mineral lode or vein in this state shall have the period of sixty days from the date of discovering such lode or vein in which to sink a discovery shaft thereon, or to make the open cut equivalent to such discovery shaft, or to drill the hole or holes... provided [in Wyo. Stat. §§ 30-6 (1957)]." Wyo. Stat. § 30-7 (1957), as amended by Law of Feb. 11, 1955, ch. 88, § 2, [1955] Wyo. Laws 79. The 1955 amendment added the references to open cuts and drill holes to this provision of the Wyoming law, which was enacted in 1886. It is well settled that the discoverer of a mineral lode or vein in this state shall have the period of sixty days from the date of discovery in which to record. Id. § 1, at 179. Both periods were reduced to the present sixty days by the Law of Feb. 21, 1895, ch. 108, §§ 1-2 [1895] Wyo. Laws 246-247.
important to distinguish discovery-work from the required discovery itself, and to examine some of the difficulties created by the Wyoming "drill-hole" law enacted in 1955.169

A prospector may dig a pit on a mining claim merely to show possession, without expectation of a discovery therein, even where such a pit is not required by statute, but he should not confuse discovery work with discovery, just as he should not confuse discovery work with assessment work. The casual reader of Phillips v. Brill, for example, may conclude that one drill hole, shaft, or cut is sufficient to satisfy the discovery work requirement for two adjacent claims. In that case, however, the owners of two adjoining association oil placer claims made a discovery in a well which they had commenced upon the boundary line between their claims, only one of which was involved in the case. The Court discussed, without deciding, whether one well could be used to validate two placer claims on the basis of a discovery made therein; but it did not assume, as the reader might, that discovery workings are required on placer claims. Had the Brill case involved adjacent lode claims instead, the discovery made in a hole bisected at the surface by the common

169. See note 157 supra.
160. As occurred in Whiting v. Straup, 17 Wyo. 1, 95 P. 849, 855 (1908).
161. As on placer claims. See notes 67 and 68 supra.
163. See 2 American Law of Mining § 7.1 (1960). Like assessment work, however, the discovery work requirement is intended, among other things, to evidence the assertion of the locator's interest; the amount of work required is too small to be of any real significance in developing the claim. Compare Sherlock v. Leighton, 9 Wyo. 297, 63 P. 580, 583 (1901), with 1 American Law of Mining § 5.55 at 855 (1963). See also Globe Mining Co. v. Anderson, 78 Wyo. 17, 318 P.2d 373, 385 (1957) (locator cannot adopt work done by others as his own for discovery-work purposes).
164. 17 Wyo. 26, 95 P. 850 (1908). See also the discussion of this case beginning at note 206 infra.
165. The difficulty involved in drilling a hole without deviation from the vertical to any significant depth should dissuade any locator from adopting this procedure. See, e.g., Young, Elements of Mining 79-82 (4th ed. 1946).
166. The Court does not deny that two claims can be validated by discovery in a boundary line drill hole, but the decision seems to favor requiring the locator to elect one claim or the other. Phillips v. Brill, 17 Wyo. 26, 95 P. 856, 858-860 (1908). But see Dean v. Omaha-Wyoming Oil Co., 21 Wyo. 133, 128 P. 881, 882-883 (1913), where the Court does not seem to question the procedure.
167. Discovery workings are not required on placer claims. See notes 67 and 68 supra. The owners of the claim involved in Brill did dig a pit ten or eleven feet deep prior to commencing their drill hole, however, and this fact confuses the situation in Phillips v. Brill, 17 Wyo. 26, 95 P. 856, 857 (1908).
end line 168 of the two claims might have been sufficient to validate both claims, 169 but the single hole could not have satisfied the discovery-work statutes then or now, 170 even if the Court refused to infer that the hole deviated from the vertical in its downward course. 171 Half of a discovery shaft or drill hole hardly satisfies the statutes. 172

The 1955 “drill-hole” law requires from one to five holes not less than ten feet deep, provided an aggregate depth of fifty feet is reached. 173 Length is not the criterion; depth is. One of the holes must be designated as “the discovery hole,” 174 and if the prospector chooses to drill such a hole in lieu of doing some other kind of discovery work, he apparently obligates himself to monument the hole and post a notice on the monument. 175 Furthermore, if his drill hole encounters water, the hole must be plugged, and he must set forth the facts with respect to the depth at which the water was encountered, and the plugging back of the hole, in an affidavit which “shall” be recorded. 176

168. So long as the discovery workings of a lode claim are on the long center-axis of the claim, it does not matter how close the workings are to one end line or the other, and so long as but one claim is intended to be benefited thereby, there is ordinarily no reason why the workings cannot be bisected by an end line. See 1 AMERICAN LAW OF MINING § 5.58, at 860 (1963).

169. See infra at notes 208-211.

170. See notes 154 and 156 supra.

171. No attempt was made in Brill to prove that the drill hole did deviate from the vertical, and the Court therefore refused to infer that it did. Phillips v. Brill, 17 Wyo. 26, 95 P. 856, 859 (1908). A similar result was reached five years later in Dean v. Omaha-Wyoming Oil Co., 21 Wyo. 133, 128 P. 881, 882-883 (1913), where the Court found it unnecessary to reach the question of whether two separate discoveries in a boundary-line drill hole will validate two adjacent claims, since a survey showed that the well was not on the claim in question at all.

172. See 1 AMERICAN LAW OF MINING § 5.58, at n.11 (1963); Poplar Creek Consol. Quartz Mine, 16 Interior Dec. 1 (1953). An attempt to quarter the discovery workings on a common corner where the end lines of four lode claims meet would be clearly inadequate for all four claims in view of WYO. STAT. § 30-25 (1957) which requires discovery shafts to be “always equally distant from the side lines of the claims.”

173. WYO. STAT. § 30-6(2) (1957).

174. WYO. STAT. § 30-6(3) (1957): “[I]n the event that more than one such hole shall have been drilled.”

175. WYO. STAT. § 30-6(3) (1957) provides as follows:

The discoverer shall designate one of the holes thus drilled as the discovery hole, in the event that more than one such hole shall have been drilled. The said hole shall be marked by a substantial post or other permanent marker, placed at and adjacent to the hole and within five feet thereof, firmly fixed in the ground, and extending at least thirty inches in height above the ground, and on which shall be placed the name of the claim, the owner thereof, the depth of the hole, and the date of the drilling thereof.

Since designation of a discovery hole is necessary only in the event that there is more than one hole, it is not clear that monumenting and posting is required where there is but one hole.

176. WYO. STAT. § 30-6 (1957). Cf. note 177 infra.
Under the rationale of the Thurston case,\textsuperscript{177} failure to comply with the requirements of the statute with respect to drill holes encountering water would not jeopardize the locator's rights to his mining claim, but there is another provision of the 1955 law\textsuperscript{178} which may trap the unwary:

The drilling of such hole, or holes, or the sinking of the shaft or making of the discovery pit otherwise provided for in this act [§§ 30-1 to 30-26] shall be made a matter of record by the recording in the office of the county clerk of the county in which the claim shall be situated the affidavit or sworn statement of the discoverer, locator, owner or his or their agents stating the date of such work, the nature thereof, the person or persons by whom performed, the location of such work within the claim, and the nature of the mineral discovered. Such affidavit may be a part of the location certificate to be thereafter recorded in accordance with the provisions of this act.

The creation of the rights provided for in this act are based upon the truth of the statements contained in such affidavit or statement and the certificate of location, herein otherwise provided for, and

\textsuperscript{177} Western Standard Uranium Co. v. Thurston, 355 P.2d 377, 387-388 (Wyo. 1960). This case considered an alleged failure to comply with the last paragraph of Wyo. Stat. § 30-6 (1957), which reads as follows:

The owner of any mining claim located prior to the effective date of this act [§§ 30-1 to 30-26 [an insertion by the Compiler which is obviously erroneous; "Laws 1955, ch. 88, § 1," is intended]] and who has performed discovery work may avail himself of the provisions hereof by making the drill hole or holes herein provided for and filling any discovery cut previously made, and making and placing of record the affidavit herein provided for, together with a statement of the filling of such discovery pit or cut, and that the said work was done and the affidavit made for the purpose of obtaining the benefits of this act.

The Court observed that the Legislature provided no penalty for failure to comply with this provision, noted that mandatory application of the statute would not serve the objects of the discovery-work requirements, and dismissed as unreasonable the contention that one must comply with this provision to rely on drill holes to validate claims on which pits were dug prior to the effective date of the provision. If limited to the facts of the case, and to the paragraph under consideration, the reasoning of the Court is correct; any other result would have defeated a locator who had apparently complied with all applicable discovery-work provisions of the law existing in 1954 when he performed the work then required and whose only alleged fault was in not proving what he had properly determined he had ahead before adverse location, and drilled holes as he had the right to do without regard to the new statute. As indicated in the text, the same reasoning would apply to a failure to comply with the provisions of the 1955 law as to water-bearing strata, since these have nothing to do with the objects of the discovery-work requirement of the mining laws. This also "is not a condition precedent but an incident or regulation prescribing mining methods or operation on public lands." Western Standard Uranium Co. v. Thurston, 355 P.2d 377, 387 (Wyo. 1960).

\textsuperscript{178} Wyo. Stat. § 30-6 (1957) (emphasis added).
no rights of any kind or nature shall vest or exist or be created or arise when any material statement or representation therein made is false.

These provisions clearly apply even where drill holes are not used in lieu of the other kinds of discovery workings, and a prospector not familiar with this sort of statute\(^{179}\) may easily overlook the affidavit requirement if he decides neither to drill nor to read this section of the Wyoming statutes.\(^{180}\) Whether failure to record the required affidavit jeopardizes more than the constructive notice afforded by an otherwise adequate recorded location certificate or not,\(^{181}\) it is clear that failure to complete the required discovery work \textit{and} to file the discovery-work affidavit opens the claim to relocation and evidences the failure to do the work as well.\(^{182}\)

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\(^{179}\) States with similar statutes are listed and discussed in 1 \textit{American Law of Mining} §§ 5.55, at 854-855, and 5.61 (1963). The New Mexico statute, N.M. Rev. Stat. § 63-2-3.1 (1953), which is otherwise similar to the Wyoming statute, is limited to drill holes.

\(^{180}\) The requirement is, for example, completely overlooked in 1 \textit{American Law of Mining} § 5.61 (1963), where the Wyoming statute is said to be one which if “drilling must be evidenced by affidavit of the fact of drilling must be evidenced by affidavit.” WYO. STAT. § 854-855 (emphasis added). Similarly, the title of Wyo. Stat. § 30-6 (1957) (“When open cut equivalent to discovery shaft; drilled hole in lieu of discovery shaft; requirements as to drilled hole”) is of little help to the casual reader.

\(^{181}\) See note 177 supra. In effect, the statute makes the filing of an affidavit of discovery work a part of the required discovery work, and in principle, at least, there is no reason why failure to record the affidavit should not have the same effect as failure to do the work would have. But since no rights are created in the 1955 Act as to any kind of discovery working other than drill holes, the word “act” in the next-to-last paragraph of Wyo. Stat. § 30-6 (1957) must be construed to include Wyo. Stat. §§ 30-3(1) and 30-7 (1957), as it was by the Compiler in the preceding paragraph, if it is to be strictly construed either for constructive-notice purposes or for all purposes. The fact that the word “act,” despite the Compiler’s conclusion to the contrary, is obviously used in a different sense in the last paragraph of Wyo. Stat. § 30-6 (1957) is, perhaps, significant, as is the fact that the Compiler did not even guess at the meaning of the word in the next-to-last paragraph of the section. It would seem that if discovery work of any kind other than drill holes is actually done, constructive notice alone should be affected by a failure to record the required affidavit.

\(^{182}\) A different question is presented where the required discovery work has been completed but the discovery work affidavit, required by Wyo. Stat. § 30-5 (1957), has not been filed. While the Legislature has created a provision in the mandatory language of “shall,” it has not provided a statutory penalty or result in cases where the mandate is ignored or neglected by failing to file the affidavit at all. Alternative legal consequences of such failure readily come to mind: (1) Failure to file the affidavit might be deemed a substantial noncompliance with a material condition of location. If so, the ground claimed should logically be held to be open to relocation by others for so long as the affidavit remains unrecorded, even though the discovery work has actually been done. Such a result, although commendable from the standpoint of giving literal meaning to the mandatory language used by the Legislature, seems harsh. (2) Failure to file the affidavit might be deemed either a less-than-substantial noncompliance with a material condition of location or a failure to take advantage of a provision designed to confer the benefits of constructive notice and prima facie evidence that the work was done. If so, it would follow that the locator in the event of contest, might, by other means that third parties had actual notice of the facts that the work was done. Whether the ground remained open to relocation by the failure of the first locator to file the
Discovery: The Sine Qua Non of a Valid Mining Claim

Until the discovery of a vein or lode within the limits of a claim, the Federal mining laws,\textsuperscript{183} and the Wyoming statutes also,\textsuperscript{184} appear, as we have seen,\textsuperscript{185} to prohibit the location of a lode mining claim. Even though the prohibition is more apparent than real, it is, however, clear that the discovery requirement exists, and that it extends to placer claims as well.\textsuperscript{186} A discovery of a valuable mineral deposit is, in fact, absolutely essential to establish the validity of any lode or placer mining claim.\textsuperscript{187}

In the earliest Wyoming case to consider a question involving discovery,\textsuperscript{188} the Wyoming Supreme Court said:

affidavit would be a question of fact as to which the ultimate burden of proof should remain on the party asserting forfeiture, even though the first locator may have lost the statutory benefits of having filed an affidavit. Such a legal consequence would seem to be more in harmony with the apparent object of the statute of providing for record evidence of the performance of the discovery work.

183. 30 U.S.C. § 23 (1964): "[N]o location of a mining claim shall be made until the discovery of the vein or lode within the limits of the claim located." The object of this provision "is evidently to prevent the appropriation of presumed mineral ground for speculative purposes, to the exclusion of bona fide prospectors, before sufficient work has been done to determine whether a vein or lode really exists." 43 C.F.R. § 3413.1 (1968).

184. See note 66 supra and see also Wyo. Stat. § 30-1 (1957). Compare Wyo. Stat. § 30-6(2) (1957): "[T]he discoverer of a mineral deposit may, at his option, in lieu of a discovery shaft . . . drill or cause to be drilled, a hole, or holes, . . . at least one of which shall cut or expose deposits of valuable minerals sufficient in quality to justify a reasonably prudent man in expending money and effort in further exploration or development." Section 30-6(2) is of fairly recent origin. Law of Feb. 11, 1955, ch. 85, § 1, [1955] Wyo. Laws 78. Cf. Western Standard Uranium Co. v. Thurston, 355 P.2d 377, 388 (Wyo 1960), describing this provision as a "definition in aid of and to be construed with" 30 U.S.C. § 23 (1964).

185. See notes 65-66 supra.

186. Whiting v. Straup, 17 Wyo. 1, 95 P. 849, 853 (1908). Cf. 43 C.F.R. § 8416.3 (1968); E. De Soru & A. Morrison, supra note 31, at 259-261. But see Van Horn v. State, 5 Wyo. 501, 40 P. 964, 966 (1895), where the Court quotes from Gregory v. Pershbaker, 73 Cal. 109, 14 P. 401 (1887), to the effect that as to placer claims, there is no condition in the acts of Congress, local laws, or practices of miners, that requires the discovery of valuable mineral before the location was made. What is meant, evidently, is that the acts of location need not proceed in any particular order, and since Van Horn is both an oil placer case, as to which Congress ratified claims located in anticipation of discovery, and a criminal case (prosecution for destruction of a building), it should not be taken literally in this regard. See notes 9 and 46 supra; Sherwood & Greer, supra note 2, at 11, n.53.

187. Whiting v. Straup, 17 Wyo. 1, 95 P. 849, 851, 853, 854 (1908). The discovery requirement is precisely the same for placer claims as for lodes, except for the additional requirement, as to lodes, that mineral deposits in rock in place, as opposed to float rock or loose rock and earth, must be disclosed. See note 188 infra.

188. Columbia Copper Mining Co. v. Duchess Mining, Milling & Smelting Co., 13 Wyo. 244, 79 P. 385, 386 (1905). In this case, the Wyoming Supreme Court affirmed a lower-court decision on conflicting evidence, and in describing the conflict in the evidence for and against discovery by a prior locator, the Court recognized the need for discovery of mineralized rock in place, rather than loose rock and earth at the surface.
It is conceded that a discovery of mineral is . . . necessary . . . But just what constitutes such a discovery is often a question. Many definitions of discovery have been given by the courts . . . Whether or not a discovery has been made is always a question of fact.

Not unnaturally, a good deal of the litigation involving mining claims has turned on questions of where,\(^{189}\) when,\(^{190}\) and by whom\(^{191}\) a discovery may or must be made, and upon the basic issue of what constitutes a discovery. Cases involving the latter question, three of which we will discuss in detail, illustrate most of the important concepts.

For most purposes, the question of what constitutes a discovery arises in disputes between the locator and the owner of the paramount title; such disputes, which are frequent today, are beyond the scope of this article.\(^{192}\) This is not to

\(^{189}\) It is commonplace to read that a discovery must be made within the boundaries of a locator's claim upon otherwise open, unappropriated public mineral lands. See Columbia Copper Mining Co. v. Duchess Mining, Milling & Smelting Co., 13 Wyo. 244, 79 P. 385 (1905); Sherwood & Greer, supra note 2, at 6-12; 1 AMERICAN LAW OF MINING §§ 4.29-4.34 (1960). Dean v. Omaha-Wyoming Oil Co., 21 Wyo. 133, 128 P. 881 (1913), is an interesting example. In that case, the defendant attempted to validate an oil placer claim by a discovery well drilled just at the quarter-section line which was the southern boundary line of the claim. A subsequent survey indicated that the boundary line was incorrectly determined in the first instance, and, as correctly surveyed, the boundary line was determined to be a few feet to the north of the defendant's well. In holding for the plaintiff, whose claim conflicted with that of defendant, the Wyoming Supreme Court noted that the defendant's discovery was invalid because it was located off the claim as shown by the subsequent accurate survey. Compare Masek v. Ostlund, 358 P.2d 103 (Wyo. 1960). See also Phillips v. Brill, 17 Wyo. 26, 95 P. 855 (1908), discussed infra beginning at note 206.

\(^{190}\) A discovery made by a locator within the boundaries of his own claim will create no rights if, at the time the discovery is made, the locator is trespassing upon ground validly possessed and held by someone with superior rights. See Sherwood & Greer, supra note 2, at 6-12, and the cases there cited.

\(^{191}\) In Whiting v. Straup, 17 Wyo. 1, 95 P. 849 (1908), for example, it was urged that a discovery made in behalf of a stranger upon lands claimed by another inured to the benefit of the latter, who had not yet made a discovery of his own. The Court rejected this contention, and in view of the fact that in the reverse situation, where the stranger attempts to adopt the discovery of a prior locator, relocation is necessary, there is no reason to question the result in Whiting absent adverse possession. Compare WY. STAT. §§ 30-4 and 30-9 (1957) with 1 AMERICAN LAW OF MINING § 5.9, at n.1 (1963). Whiting was not, in fact, a simple case, since the discovery was made on a portion of a claim conveyed to a third party by the original locator after he had conveyed the remainder, before discovery, to another. The original locator was then employed by the third party, in whose behalf he made a discovery on the portion of the claim owned by his then-employer. The Court did not, therefore, find it necessary to determine whether a discovery by the original locator, absent the conveyance to the third party, would have inured to the benefit of his first grantee.

\(^{192}\) Hundreds of decisions involving the sufficiency of purported discoveries, as against the United States, are collected in the looseleaf Gower Federal Service (Mining), published periodically by the Rocky Mountain Mineral Law Foundation, Boulder, Colorado.
say that the test of a valid discovery as applied by the Federal Government in determining title to its own property is irrelevant to the Wyoming miner.\(^{193}\) On the contrary, the rules applied by the Department of the Interior, rightly or wrongly, are of vital importance to any miner.\(^{194}\) But since they find little or no support in the Wyoming cases involving disputes between competing prospectors,\(^{195}\) we shall leave

\(^{193}\) The test is the "prudent-man" test which is discussed \textit{infra} at notes 197-198. The application of that test to particular factual situations is the subject of much recent litigation. See note 194 \textit{infra}.


\(^{195}\) The fundamental issue in cases such as those cited in note 194 \textit{supra} is whether there is \textit{any} discovery sufficient to validate a claim as against the United States. In disputes between competing prospectors, the issue is not \textit{whether} but \textit{when} a discovery was made. In the latter case, different rules apply, such as those mentioned in Columbia Copper Mining Co. v. Duchess Mining, Milling & Smelter Co., 12 Wyo. 244, 79 P. 385, 386 (1905), where the Court quoted from I. C. Lindley, \textit{Miner's} 610 (2d ed. 1903), to the effect that a sufficient discovery takes place when prospectors find "indications of mineral that he is willing to spend his time and money in following with the expectation of finding ore; and a valid location of a mining claim may be made of a ledge deep in the ground, or appearing on the surface, not in the shape of ore, but in vein matter only." See also Western Standard Uranium Co. v. Thurston, 365 P.2d 377, 382-384 (Wyo. 1960), and compare Diamond Coal & Coke Co. v. United States, 233 U.S. 286 (1914). In this case, which arose in Wyoming, the Government sued to annul homestead patents and it was in the defendant company's interest to negative both discovery and the existence of valuable minerals. The evidence showed that the patentees had stated in affidavits that the lands were sought for agricultural purposes and that they contained no valuable coal. Relying on evidence that the district was known generally to contain coal, that the lands in controversy were situated near an outcrop, and down dip from a coal-bearing formation, the Court found that the evidence as a whole afforded a reasonable ground for believing that a considerable territory in the vicinity could be mined profitably, and that this information was available to the agricultural patentees. Mr. Justice Van Devanter said, id. at 349:

\begin{quote}
There is no fixed rule that lands become valuable for coal only through its actual discovery within their boundaries. On the contrary, they may, and often do, become so through adjacent disclosures and other surrounding or external conditions . . . .
\end{quote}

This case serves to point up the fact that different standards apply in determining whether lands are mineral and whether a discovery has been made, depending on whether the conflict is between a mining locator and an agricultural claimant, a mining locator and another mining locator, or a mining locator and the United States as owner of the paramount title.
analysis of Departmental decisions on the subject to other writers.\textsuperscript{196}

It will suffice, for our purposes, to say that the "prudent-man" test is recognized in Wyoming\textsuperscript{197} and that mere inference or indications of mineral are not enough.\textsuperscript{198} These principles have been applied by the Wyoming Supreme Court, in modern context, in two carefully-reasoned cases which rank among the leading American mining decisions of this Century.

\textit{Globe Mining Co. v. Anderson,}\textsuperscript{199} was a suit by the Globe Mining Company to quiet title to ten of its uranium claims designated Phil Nos. 3 through 12. The defendant, Anderson, filed a cross-petition to quiet title to five junior and conflicting claims designated the Andria Nos. 1 through 5. In September, 1953, the plaintiff's predecessors identified a radioactive anomaly through the use of an airborne scintilla-

\begin{itemize}
\item \textsuperscript{196} See, e.g., Gray, \textit{New Concept of Discovery and Title to Unpatented Mining Claims}, 10 ROCKY MT. MINERAL L. INST. 491 (1965), and the materials cited in note 28 supra.
\item \textsuperscript{197} Granlick v. Johnston, 29 Wyo. 349, 213 P. 98, 99 (1923), \textit{quoting} Chrisman v. Miller, 197 U.S. 313, 332 (1905), with approval. Chrisman adopted the following test set forth originally in Castle v. Womble, 19 Interior Dec. 455, 457 (1894):
\begin{quote}
[\textit{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. To hold otherwise would tend to make of little avail, if not entirely nugatory, that provision of the law whereby "all valuable mineral deposits in lands belonging to the United States ... are ... declared to be free and open to exploration and purchase."]
\end{quote}
See also United States v. Ohio Oil Co., 240 F. 996 (D. Wyo. 1916), and compare Wyo. STAT. \S\ 30-6(2) (1957), which requires the disclosure of "deposits of valuable minerals sufficient in quality to justify a reasonably prudent man in expending money and effort in further exploration and development." This provision of the Law of Feb. 11, 1955, ch. 38, \S\ 1, [1955] Wyo. Laws 78, was compared with 30 U.S.C. \S\ 23 (1964) in \textit{Western Standard Uranium Co. v. Thurston}, 355 P.2d 377, 382-384, 388 (Wyo. 1960).
\item \textsuperscript{198} Granlick v. Johnston, 29 Wyo. 349, 213 P. 98 (1925); Whiting v. Straup, 17 Wyo. 1, 9 P. 345, 354 (1908); Dean v. Omaha-Wyoming Oil Co., 21 Wyo. 133, 128 P. 381 (1913). In Dean, the Wyoming court rejected claims that oil had been discovered where it was demonstrated merely that shallow holes or wells showed indications of oil in the form of shallay seepage or shale grease. As Judge Riner pointed out, three years later, mere indications do not suffice to constitute a discovery. United States v. Ohio Oil Co., 240 F. 996 (D. Wyo. 1916). As should be obvious, a location notice may be "understood as constituting discovery ... [but] the notice itself is not evidence of discovery; that fact must be otherwise shown." Bergquist v. West Virginia-Wyoming Copper Co., 18 Wyo. 234, 106 P. 673, 680 (1916). Furthermore, "discovery includes the elements of geological formation, value, and character of the vein matter." \textit{Id.} at 686 (Scott, J., concurring).
\item \textsuperscript{199} 78 Wyo. 17, 318 P.2d 373 (1957). This case is discussed at length, in connection with the distinction between lodes and placeres, in \textit{Sherwood & Greer, supra} note 2, at 16-32. \textit{Cf.} Note, Wyo. L.J. 176 (1961).
\end{itemize}
tion counter. Later, samples were taken and the ground was located. Then in November of that year, discovery pits were dug on each of the plaintiff's claims. Prior to April of 1955, some shallow digging was done on the claims numbering 5 through 8 and some material was blocked out for mining. In May of 1955 the defendant also identified the anomaly by airborne means. Believing the plaintiff's locations to be defective, the defendant located his Andria claims over portions of the Phil Nos. 3 through 12. One of the questions framed by the trial court was whether the plaintiff had properly complied with the discovery requirement of the law. On this issue, the trial court found for the defendant, rejecting plaintiff's evidence of discovery, which was based on the reading of scintillation and Geiger counters. The trial court also found that there was insufficient evidence to show that any samples taken allegedly from Phil Nos. 5, 6, and 8 came from a vein or rock in place. The Supreme Court reversed in part, finding that there was uncontradicted testimony that mineral samples were taken from rock in place in pits on Phil Nos. 5, 6 and 8; the plaintiff was therefore held to have made a discovery on those claims. But as to the other claims, the Supreme Court accepted in principle the holding of the trial court that radiometric measurements do not suffice to constitute discovery, and affirmed, saying:

[T]here was no evidence of a sampling and assaying of a vein, lode, or rock in place in Phil Nos. 3, 4, 7, 9, 10, 11, and 12 and, therefore, no discovery on these claims—unless we recognize the readings of electrical instruments such as scintillation and Geiger counters as sufficient to support discovery. This we are reluctant to do, since such counters while helpful in prospecting for uranium cannot be relied upon as the only test. For instance, plaintiff's witness, Grant, testifying about his general investigation on the subject, said that in certain areas where the background count was high an assay showed no uranium. . . . Thus, with the exception of Phil Nos. 5, 6, and 8, there is no evidence in the record on which to base discovery of a vein, lode, or mineral bearing rock in place within the limits of

any Phil claim. This is required by both the Federal and Wyoming statutes relating to lode claims, and plaintiff is obligated to sustain the burden of proof in that respect. . . . Plaintiff did not meet this burden as to Phil Nos. 3, 4, 7, 9, 10, 11, and 12 by a presentation of competent evidence showing the situation as to each claim. It follows that those Phil Claims stand invalid and may not receive further attention . . . .

But in Western Standard Uranium Co. v. Thurston, decided three years later, the Court seemed to reach a different result in considering whether there was sufficient evidence of discovery in connection with uranium claims. This was a suit by a senior locator to quiet title to thirteen lode claims as against the defendant company, a junior locator. The trial court gave summary judgment for the plaintiff, Thurston, on the issue of discovery. The facts as shown by plaintiff’s affidavits indicated that the plaintiff located his claims in a known uranium area in 1954. In locating his claims he considered the general geology and geologic conditions affecting the area generally. The plaintiff took samples from adjoining claims and assays thereof showed definite values; he was also able to trace a trend onto his own claims. In the summer of 1957, the plaintiff drilled four-inch drill holes on all of his claims adjacent to existing discovery pits and probed the drill holes with a radiometric device. Each probe showed a positive reaction in two zones where miners in the area relied on radiometric readings to indicate uranium ore. The plaintiff also relied on visual samples taken from the drill holes before the defendant entered and attempted to locate in October, 1957. An assay made after the suit was begun showed varying amounts of $U_3O_8$ in the samples taken from the drill holes. There was also evidence of commercial production both north and south of plaintiff’s claims.

In affirming a summary judgment for the plaintiff on the issue of discovery, the Supreme Court, in an opinion by District Judge Guthrie, acknowledged that a discovery could not have been based on any one of the plaintiff’s acts, but emphasized that, taken together, the facts tended to sustain

the plaintiff’s claim of discovery. Consistent with its earlier decision in the *Globe* case, the Court reiterated that radiometric readings do not constitute a discovery, but conceded that they are important facts when considered with other existing facts to confirm what might not be otherwise sufficient evidence.202 Liberally construed in favor of the first to locate, the Court had no difficulty in upholding not only Thurston’s discoveries, but the summary judgment in his favor on this issue as well, summing up the law as to the sufficiency of a discovery, as between competing locators, as follows:203

There is no reason to conclude that the trial court based its findings upon any particular one of these evidentiary facts nor is there any reason to believe that the court should or did ignore the many combined pertinent facts and factors which were disclosed by the plaintiff’s showing on the motion for summary judgment and which so definitely, on the facts herein, distinguish this case from the *Globe* case.

It may be conceded that a discovery could not be based on any one of the above facts but they are all relevant facts which should be considered as component parts of an assemblage of physical facts which might and would “justify a reasonably prudent man in expending money and effort in further exploration or development.” For this court to rule otherwise would require it to adopt a position that a man or men engaging in a specialized business can never be reasonably prudent men unless their methods and operation follow the court’s concept of the proper manner of conducting their business and substituting the judgment of the court for experts in their respective fields.

... While no case examined allows the predication of a discovery solely on radiometric readings, the importance of such readings, when taken into consideration with other facts and factors, is universally recognized. To fail to do so is to deny progress or recognize that scientific tools by con-


continued use and experience can and usually do evolve from unreliability to respected accuracy when properly applied to their ultimate uses.

No better justification for adaptation of American mining law to modern problems could be devised. It is necessary, however, to decide whether Thurston overrules Globe on this point, since the two decisions are not easily reconciled.

It is not enough to say that in Thurston the Court found substantial evidence which, when taken with the radiometric readings, was sufficient to establish discovery in favor of the first locator, since the Court in Globe made no effort to favor the first locator in this regard. The distinction between the two cases lies, we believe, in another issue, which the Court found to be decisive in Globe and which it hardly considered in Thurston. In Globe, the first locator failed to establish discovery of rock in place; but in Thurston the Court assumed the samples taken by the plaintiff from deep drill holes to be from rock in place when it considered the radiometric readings. This is why the Court found it necessary to consider the plaintiff’s failure to comply with the 1955 drill-hole law when he drilled his deep holes in 1957,204 notwithstanding its conclusion that the plaintiff’s 1954 discovery pits disclosed the upper Wind River formation, which it recognized as “rock in place and where mineralization occurs . . . [as] a lode.”205 All of the pits on the claims cut into the formation, but there was no evidence that any of them disclosed anything other than higher-than-normal radiometric readings. Since the drill holes disclosed ore before the defendant located, the pits were of minor significance. In Globe, the plaintiff lost as to those claims where he failed to sample and assay what his pits disclosed; in Thurston the plaintiff won because he did sample and assay what his drill holes disclosed. So one can only conclude that the drill holes in Thurston were assumed to cut rock in place because the surface pits exposed rock in place identified as the target formation and that the absence of drill holes and evidence of rock in place as to most of the claims in the Globe case distinguishes these two cases.

204. See supra at note 177.
This brings us finally, and logically, to Phillips v. Brill, decided in 1908 by the Wyoming Supreme Court. This is one of the most interesting decisions in American mining law and compels our attention because it anticipates, in a way, modern hard rock exploration methods, even though—or perhaps because—it was, like so many cases in the Wyoming courts of sixty years ago, an oil placer case.

Phillips and three others located two adjacent eighty-acre tracts as association oil placer claims, in advance of making a discovery on either claim. Several months later, Brill and seven others located a 160-acre claim comprised of all of the southerly Phillips claim, half of the northerly Phillips claim, and forty acres adjacent to but outside the southerly Phillips claim, the Brill claim being based on a discovery made a week earlier on the forty acres not included in either of the Phillips claims, only the southerly one of which, the "Ravensbury," was at issue in the case, the Brill group having adversely the application of the Phillips group for patent. The Phillips group based their right to patent upon a discovery which they made after the Brill location in a well which they commenced upon the boundary line of their two adjoining claims on the same day the Brill group located the ground. The Phillips well was bisected at the surface by the dividing line between the two claims, but Brill made no attempt to prove that the well deviated in its downward course away from the "Ravensbury" and the Court refused to infer that it did. It also refused to decide whether one well could be used to validate two placer claims on the basis of a discovery made therein, and we can only infer from the decision what rule the Court might have applied in a true boundary-line discovery case where the owner of two adjacent claims attempts to apportion half of his drill hole discovery to each claim.

We can comprehend no reason why an owner of two adjacent, or even non-adjacent, claims cannot collar an inclined drill hole on one of his claims, or elsewhere, and drill through one claim into the other, intersecting ore in both claims. He clearly satisfies the discovery requirement as to

206. 17 Wyo. 26, 95 P. 856 (1908).
207. See the discussion of this point at note 171 supra.
208. See note 166 supra.
each claim, whether he has satisfied the statutory requirement as to a discovery hole on each claim or not, assuming the claims to be lode claims, and if the claims are placer claims, the discovery hole statute is, as we have seen, irrelevant. It would seem to us to follow, then, that the discovery requirement is equally met in the unlikely event that the collar of a hole is centered on the boundary line between two claims and intersects ore in both claims vertically beneath the collar. So long as two discovery points are established, one on each side of the boundary line extended vertically downward from the surface, what does it matter if they are but an inch apart?

In summary, the law of discovery is a complex of legal concepts and factual components, each of which must be satisfied if a valid discovery is to exist at all. Whether a discovery exists or not, however, the nature and extent of the interest acquired by location is itself a complex subject which must await investigation at another time, in connection with an examination of the myriad issues involving maintenance, amendment, and relocation of mining claims.

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209. See supra at notes 155, 170-172.
211. The minimum size drill hole permitted by Wyoming law is 1½ inches in diameter. Wyo. Stat. § 30-6(1) (1957).