DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
PHOENIX, ARIZONA

JOHN H. JETT, DIRECTOR

LAWS AND REGULATIONS GOVERNING MINERAL RIGHTS in ARIZONA

by

VICTOR H. VERITY

8th Edition
Revised September, 1979

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INTRODUCTION

This booklet was first compiled by J.E. Busch and published in 1946 in response to the demand for a simplified statement of the mining laws. The 4th edition, made necessary by changes in the law, was a complete revision by Victor H. Verity who also updated the booklet in the 5th, 6th and 7th editions. The 7th edition was reprinted in 1977, with a supplement by John C. Lacy. A new edition was necessitated by amendments to existing laws and the enactment of many new statutes having a substantial impact on the acquisition of mineral rights and on mining operations. This 8th edition was prepared by Victor H. Verity, with substantial contributions by Larry D. Clark, Patricia G. Munger and Leo N. Smith.

The scope of the booklet is limited to the principal provisions of the federal and state mining laws as they apply within the State of Arizona. The laws are set forth generally and with a minimum of legal citation. While this information will be of assistance in avoiding many of the errors and omissions commonly made in the acquisition of mineral rights, the booklet is necessarily generalized and it will not serve to provide answers to many specific legal problems. Additionally, one must be aware of the constant changes in the laws and regulations applicable to the acquisition of mineral rights. When specific legal problems are encountered, an attorney should be consulted.

The Department of Mineral Resources keeps informed on new and pending legislation, changes in freight rates, tariffs, trade agreements, taxation and other matters which affect the mining industry. Additional information may be obtained from the Department of Mineral Resources, Mineral Building, Fairgrounds, Phoenix, Arizona.

John H. Jett, Director

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I. MINING LAW GENERALLY

The intent of the mining laws and the leasing acts, both state and federal, is to develop the mineral resources on the public domain and state land. The law is intended to protect only the bona fide prospector who stakes a claim or otherwise seeks to acquire mineral rights with a serious intention of prospecting for minerals. The best way to demonstrate good faith is to properly locate the claim, or other mineral interest, and to maintain and work it in full accordance with all legal requirements and with due regard for the rights of the surface owner, whether it be the United States, the state or a private party. Any damage to surface resources should, in all cases, be limited to that which is necessary for mineral exploration and development since needless destruction of surface resources is almost certain to create conflicts. Mere excavation of a certain volume of material which is not expected to determine the mineral potential, or even whether mineralization exists, often raises a serious question in the mind of the surface owner as to the good faith of the prospector.

Approximately 70 percent of the land in the state of Arizona is owned or controlled, as in the case of Indian reservations, by the federal government, and is subject to the provisions of the federal laws. The State of Arizona owns approximately 12 percent and, for the most part, the acquisition of mining rights on such lands is subject to state laws, entirely apart from the federal statutes. However, as a result of exchanges of land between the state and the United States under the provisions of the Taylor Grazing Act, many instances will be found where the mineral and surface estates have been separated. It is common to find minerals subject to the federal mining law in areas where the surface of the land is owned by the state. The remaining land, constituting about 18 percent, is privately owned. However, minerals have been reserved by the federal government in much of this land and mining claims may be located pursuant to the federal laws. Frequently, however, the private landowner has acquired the mineral rights and in such cases the federal and state laws governing the acquisition of mineral rights do not apply.

The federal mining laws are found in Title 30 (Mineral Lands and Mining) and a majority of the federal public land laws are found in Title 43 (Public Lands) of the United States Code. The principal regulations relating to mining on federal lands are found in Title 43 (Public lands) of the

Code of Federal Regulations, although many pertinent regulations are found in other titles. State laws on minerals, oil, and gas are found in Title 27 (Minerals, Oil and Gas) and Title 37 (Public Lands) of the Arizona Revised Statutes. Regulations adopted by the State Land Department are published by the Arizona Secretary of State.

The federal mining laws now in force are founded on legislation enacted in 1872, under which the federal government provided for disposition of all its mineral lands by location and patent. (30 U.S.C. § 21). Since 1872 there have been several major changes in the basic mining law, the most significant of which are as follows.

The mineral leasing laws provide for the acquisition of mining rights by lease from the federal government of deposits of specified minerals, including oil, oil shale, gas, potassium, sodium, phosphate and coal. The principal legislation was the Mineral Leasing Act of 1920. The Mineral Leasing Act for Acquired Lands of 1947 authorized the acquisition of leasable minerals on lands acquired by the United States. The Geothermal Steam Act of 1970 provides the exclusive means pursuant to which geothermal resources owned by the United States may be acquired and establishes a leasing system for the development and extraction of such resources. For further comments pertaining to the leasing laws see page 49.

Two acts greatly expanded the multiple use concept, particularly as applied to mineral exploration and development. The Multiple Mineral Development Act of 1954 (30 U.S.C. § 521) is designed to permit use of public lands for both mining operations under the mining laws and leasing operations under the leasing acts. This act became effective August 13, 1954, and applies to public domain and to patented lands wherein the United States has retained mineral rights. The Multiple Surface Use Act of 1955 (30 U.S.C. § 611) amended the general mining laws by providing that the holder of an unpatented mining claim could use the surface and surface resources only for prospecting, mining or processing operations and uses reasonably incidental thereto.

The Federal Land Policy and Management Act of 1976, commonly known as the "BLM Organic Act," imposed requirements for the filing of location notices and proof of labor with the Bureau of Land Management and granted the Secretary of Interior broad regulatory authority for the management, use and protection of the public lands. While such authority was previously delegated by many different statutes, this authority is centralized by the act. Major provisions pertinent to the acquisition of mineral rights

NOTICE OF NON-LIABILITY FOR LABOR AND MATERIALS FURNISHED

NOTICE IS HEREBY GIVEN that the undersigned is the owner of the following unpatented mining claims situated in the _____ Mining District, _____ County, Arizona, the names of which and the book(s) and page(s) of recording of the location notice(s) in the office of the recorder of said county, are as follows:

Claim Name	Recorded Book	Page

Pursuant to the terms of a _____ agreement entered into between the undersigned owner and _____, which is dated _____ and is for a term commencing on _____ and ending on _____, the property will be in the possession of and operated by _____.

The undersigned owner is not and will not be working or operating the claims or any part of the claims and does not intend to purchase supplies or materials for the claims or to employ any persons to labor thereon during the term of the above-described agreement.

The undersigned owner will not be liable for labor performed or materials or merchandise furnished in the operation or development of the claims during the term of the above-described agreement, and the claims will not be subject to a lien or any debts incurred for labor performed or materials or merchandise furnished for the operation or development of the claims during the term of the agreement.

DATED AND POSTED on the ground this ____ day of _____, 19____.

OWNER

_____

_____

STATE OF ARIZONA)
) ss
COUNTY OF PIMA)

The foregoing instrument was acknowledged before me the ____ day of _____, 19 ____ by _____.

_____
Notary Public

My Commission Expires:

_____

AFFIDAVIT OF PERFORMANCE OF ANNUAL LABOR

STATE OF ARIZONA)
) ss
COUNTY OF PIMA)

_____, being duly sworn, deposes and says:

That he is a citizen of the United States, more than eighteen (18) years of age and resides at _____, _____ County, Arizona;

That he is personally acquainted with the following unpatented mining claims situated in the _____ Mining District, _____ County, Arizona, the name(s), book(s) and page(s) of recording of the location notice(s) in the office of the recorder of said county and the BLM serial numbers of which are as follows:

Claim Name	Recorded Book	Page	A MC. No

That the notices of location of said claims are posted within the following Section(s), Township(s) and Range(s): _____ _____, G&SRM, Arizona.

That _____, whose address is _____ _____, is the owner of the above-described claims.

That between the ____ day of _____, 19 ____ and the ____ day of _____, 19 ____, at least _____ dollars worth of work and improvements were done and performed upon or for the benefit of each of the said claims, not including the location work of the said claims;

That such work and improvements consisted of _____ _____ _____ and were performed by _____ _____;

That all of the above-described work and improvements were performed by or at the expense of _____, the _____ of said claims, for the purpose of complying with the laws of the United States pertaining to assessment or annual work;

Dated this ____ day of _____, 19 ____.

_____

SUBSCRIBED AND SWORN TO before me this ____ day of _____, by _____.

My Commission Expires:
_____

_____
Notary Public

include the Secretary's authority over the classification and withdrawal of lands (see page 11) and matters pertaining to conveyances and exchanges of federal lands. (See page 6).

II. LANDS SUBJECT TO MINERAL ENTRY

The mineral discovery and the posted location notice of a mining claim must be either upon public lands of the United States, lands in which the United States has retained the minerals or state lands. However, not all such lands are open to mining location. Similarly, not all lands are subject to entry under the various leasing laws.

In recent years the determination of whether federal lands are open to mining location has become exceedingly complex. It is impossible to make a general statement in this booklet that will serve the purpose of instructing as to whether or not a specific tract of land is open to mineral entry. This fact can be determined only by consulting the public records of the county and the United States. Although copies of location notices are required to be recorded in the office of the recorder in the county in which the claims are situated, the county records do not reflect the status of the land at the time a location was made. Thus, administrative actions relating to the mineral status of the land, such as withdrawal from or restoration to mineral entry, are not evident from a review of the county records. Similarly, examination of the location notices and proof of annual labor, which must now be filed both with the county recorder and with the Bureau of Land Management, will not reveal whether the land was open to location at the time of the mineral entry. Thus, the determination of the status of the land at the time of a location must be based upon the federal land status records and the laws then in effect. The availability of lands for entry under the leasing laws must also be ascertained from the federal records.

Nothwithstanding legislation or administrative action which may have limited or even prevented the acquisition of mineral rights in specified lands of the United States or in state land, mining rights may have vested in locators by reason of valid locations made prior to the effective date of such legislation or action, and the validity of such claims are not affected thereby. In such instances, the date of the legislation or the administrative action is all-important and must be taken into consideration in determining the status of the mineral rights.

Determination of whether a tract of land has been affected by the numerous laws, regulations and administrative actions affecting public lands and mineral entries requires examination of the records of the Bureau of Land Management, United States Department of the Interior, 2400 Valley Center, Phoenix, Arizona 85703, for information regarding whether public domain of the United States was at some particular time, or presently is, open to mineral entry. Personnel of the Bureau are not available to search the records, nor is such information supplied by mail. The records are open to the public at specified hours. Helpful information may be obtained from the Department of Mineral Resources publication entitled Arizona Land Status and Ownership Determination. However, unless a person is experienced in such matters, it is advisable to employ a knowledgeable individual to determine the land status.

To ascertain the mineral status of state lands and whether such lands are open to exploration under a prospecting permit or mineral claim location, the records of the State Land Department, 1620 West Adams, Phoenix, Arizona 85007, must be examined.

In addition to determining whether applicable laws and regulations preclude mineral exploration, it is also necessary to ascertain that the land has not been previously encompassed within a valid location. A notice of location of a mining claim which has been recorded in the county recorder's office and filed with the Bureau of Land Management, and which meets all legal requirements as to form, will describe the claim in a manner which will greatly facilitate identifying its situs on the ground. Although a recent amendment to the Arizona location laws requires that the county recorder maintain maps depicting claims which have been recorded, this requirement is not mandatory as to claims located prior to September 3, 1978. Thus many claims may not appear on the recorder's map. The records of the Bureau of Land Management pertaining to unpatented mining claims will remain incomplete until the deadline for the required filings has passed and the filed information has been fully processed. Thus, while an examination of the records of the Bureau of Land Management and of the county recorder's office may reveal pre-existing, conflicting claims, these records may not be relied upon exclusively and they do not obviate the necessity for a careful inspection of the ground upon which a claim is to be situated. A complete physical inspection of the ground must always be performed in order to determine whether the land is encompassed within a previously located claim.

As noted above, it is of the utmost importance that the public records and the land be carefully examined by a qualified person in order to determine its status. Needless

CLAIM MAP

Lode ( )
Placer ( )

↑
N

Scale: 1" = _____

1. The above map depicts the _____ mining claim, which is located in Section(s) ____, Township(s) ____, Range(s) ____, G&SRM, _____ County, Arizona.

2. Type of corner and location monuments used are as follows: _____

3. The bearings and distances between claim corners are as depicted on the above map.

Instructions:

(i) If the land is surveyed, a corner of the claim or group of contiguous claims must be tied by course and distance to a monument of the public land survey; if the land is unsurveyed, a corner must be tied by course and distance to an established survey monument of a United States Government agency or a United States Mineral Monument; if no such monuments are available, a corner must be tied by course and distance to some prominent natural object or other permanent monument as shown on the map.

(ii) A north arrow, the scale and the bearings and distances between corners must be shown on the map.

(iii) The map must be no larger than 8½" by 14" and the scale must be no more than 1 inch equals 2,000 feet.

(iv) If the claim is a placer with exterior limits conforming to legal subdivisions of the public lands survey, the legal description may be used in place of the information required by item (i) and the bearings and distances between corners need not be provided.

LOCATION NOTICE
(Placer)

NOTICE IS HEREBY GIVEN that the _____ placer mining claim has been located by _____, whose address is _____.

The general course of this claim is _____ and it is situated in the _____ Mining District, _____ County, Arizona.

This claim is ____ feet in length and ____ feet in width. This claim runs from the location monument on which this notice is posted ____ feet in a _____ direction to the _____ end line and _____ feet in a _____ direction to the _____ end line. The claim boundaries are marked by six monuments, one at each corner and one at the center of the _____ line of the claim and one at the center of the _____ line of the claim. The location monument on which this notice is posted is situated within Section _____, T. _____, R. _____, G&SRM, Arizona. This claim encompasses portions of the following quarter section(s), Section(s), Township(s), and Range(s): _____

_____

G&SRM, Arizona, and consists of approximately _____ acres.

The locality of this claim with reference to some natural object or permanent monument and additional information (if any) concerning its locality are as follows:

_____

_____

_____

_____

DATED AND POSTED on the ground this ____ day of _____, 19 ____.

LOCATOR:

_____

_____

_____

A claim map must be recorded. See page 77.

to say, it is essential that the exact legal description of the land in question be available in order to ascertain the land status, and the failure to ascertain the proper legal description may result in the expenditure of time and money on an invalid location. Finally, it should be noted that although the land may be open to mineral entry, it may be subject to special restrictions pertaining to the acquisition of mineral rights and mining operations on the lands. These too must be ascertained.

While the status of each tract of land must be individually examined to determine whether it is open to mineral entry, consideration of the availability or nonavailability of various categories of land provides an initial basis for determining land status. Brief comments regarding those categories of land most commonly encountered by the mineral prospector and the availability of these lands for mineral entry are set forth below. These comments are necessarily brief, however, and are not to be taken as a substitute for a thorough examination of the public records pertaining to a particular tract of land.

A. LANDS AVAILABLE FOR MINERAL ENTRY

1. National Forests

National forests are open to mineral entry, with some exceptions. Areas withdrawn for administrative, recreational, experimental and other uses may be closed entirely to mining, and operations on mining claims in wilderness areas are subject to special limitations. Mining claims in some areas, even though located prior to the Multiple Surface Use Act of 1955, may by reason of special legislation or regulation include the right to use only so much of the surface as is reasonably necessary to carry on mining operations in order to minimize interference with the purposes for which the forest was established. The Supervisor of each forest should be consulted for details regarding mineral entry and acquisition.

Regulations recently promulgated by the Forest Service now affect virtually all exploration and mining operations on national forest lands. These regulations are discussed beginning at page 45.

2. Grazing Districts

There are four grazing districts in Arizona on the public domain of the United States. These were established under the provisions of the Taylor Grazing Act (43 U.S.C.

§ 315) and are managed pursuant to provisions of the the BLM Organic Act. Notwithstanding issuance of a grazing lease, the lands remain open to mineral entry. The grazing lessee has no vested rights in the land, and his lease is subject to cancellation.

Information regarding grazing leases may be obtained from the appropriate District Grazing Office, the address of which is available from the Bureau of Land Management, Phoenix, Arizona.

3. Land Exchanges

Under the provisions of the Taylor Grazing Act, exchanges of land were authorized both with the states and with private persons. The exchange provisions of the Taylor Grazing Act were repealed by the BLM Organic Act, and all exchanges of federal land are now made pursuant to the BLM Organic Act. The Taylor Grazing Act permitted either the United States or the exchanging party, or both, to reserve minerals and to except them from the exchange conveyance. The BLM Organic Act permits the Secretary of the Interior to convey or retain the minerals in an exchange. Therefore, for all lands exchanged under the authority of either act, it is necessary to review the status of each tract of land which has been involved in an exchange to determine ownership of the minerals and whether they may be acquired under federal or state law.

4. Stock-Raising Homesteads

All minerals in lands patented under the Stock-Raising Homestead Act of 1916 (43 U.S.C. § 291) are reserved to the federal government, together with the right to "prospect for, mine and remove the same." A great many stock-raising homestead patents covering land in Arizona were issued, and conflicts occasionally arise between ranchers and miners, usually due to a lack of information about the provisions of the law. A development which may give rise to further conflicts has been the subdivision of stock-raising homesteads for residential sites near Arizona's growing cities. Some stock-raising homesteads in and around Tucson and Phoenix were included in land withdrawn from mineral entry in 1962. See page 16. Although the BLM Organic Act repealed substantial portions of the Stock-Raising Homestead Act, the repeal did not affect the right to acquire minerals reserved to the United States. Such lands are subject to disposal under the provisions of the federal mining and leasing laws. Any person qualified to locate a mining claim may enter upon the land for the purpose of prospecting for minerals and locating mining claims. The prospector must not damage or destroy the permanent improvements or cultivated crops by reason of such prospecting.

LOCATION NOTICE
(Lode)

NOTICE IS HEREBY GIVEN that the _____ lode mining claim has been located by _____, whose address is _____.

The general course of this claim is _____ and it is situated in the _____ Mining District, _____ County, Arizona.

This claim is _____ feet in length and _____ feet in width. The claim runs from the location monument on which this notice is posted _____ feet in a _____ direction to the _____ end line and _____ feet in a _____ direction to the _____ end line. The claim boundaries are marked by six monuments, one at each corner and one at the center of each end line of the claim. The location monument on which this notice is posted is situated within Section ____, T. ____, R. ____, G&SRM, Arizona, and this claim encompasses portions of the following quarter section(s), Section(s), Township(s), and Range(s):

_____

_____

G&SRM, Arizona.

The locality of this claim with reference to some natural object or permanent monument and additional information (if any) concerning its locality are as follows:

_____

_____

_____

_____

DATED AND POSTED on the ground this ____ day of _____, 19 ____.

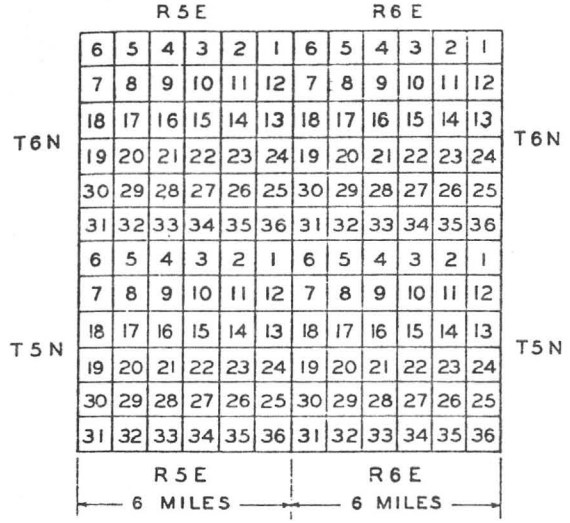
LOCATOR:

_____

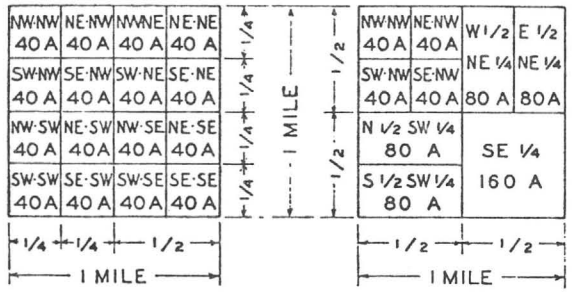
_____

_____

A claim map must be recorded. See page 77.



FOUR TOWNSHIPS WITH 36 SECTIONS EACH



As noted above, any person who has acquired from the United States the mineral deposits in Stock-Raising Homestead lands may re-enter and occupy so much of the surface as may be necessary for all purposes reasonably incidental to the mining and removal. However, this is conditioned on securing the written consent of the surface owner, upon payment to the owner of the agreed value of damages to cultivated crops, grazing land and permanent improvements, or upon the execution of a sufficient bond to the United States for the benefit of the owner of the land, securing payment of damages to cultivated crops, grazing land and permanent improvements.

It is of course preferable to come to a private agreement with the homestead owner rather than resort to the posting of a bond. If the efforts to negotiate fail, the mining claimant has an absolute right to post a bond, the amount of which will be determined by the Bureau of Land Management, and upon posting such bond he may re-enter the land to conduct mining operations. Forms for the bond and instructions relating thereto may be obtained from the United States Bureau of Land Management, Phoenix, Arizona.

Every care should be exercised to respect the rights of surface holders. To avoid misunderstanding, the prospector may wish to inform the surface owner of his intention to prospect the land and to locate mining claims. Travel by vehicle should be restricted to established roads wherever possible. The prospector should avoid unnecessary damage to grass or other forage, and keep away from water holes when his presence there will prevent stock from coming in to water.

5. Agricultural Homesteads and Other Federal Dispositions

Only a very limited number of mineral substances found in lands covered by various types of agricultural homestead patents, including Desert Land Entry patents and Enlarged Homestead patents, may be acquired under the general mining laws or the leasing acts.

The early homestead laws did not reserve minerals to the government and those minerals vested in the patentee. In 1909 the federal government began reserving coal in some homestead patents. (30 U.S.C. § 81) The Agricultural Entry Act of 1914 (30 U.S.C. § 121) provided that patents issued under the various agricultural land laws (including the Desert Land entries and Enlarged Homesteads) were to contain a reservation to the United States of phosphate, nitrate, potash, oil, gas, and asphaltic minerals, provided the lands were withdrawn or classified for such minerals or were known to be valuable for such deposits. This list was supplemented by the addition of sodium in 1933. (30 U.S.C. § 124). These substances, if found in Arizona and reserved

to the United States, will be subject to the provisions of the leasing laws. All other minerals belong to the agricultural patentee. Under the Act of 1914, it was possible to show that the lands were nonmineral and to obtain patent thereto without a mineral reservation of any kind. The agricultural patent must be examined in each case to determine what minerals, if any, were reserved by the United States. However, practically all minerals in such lands were conveyed to the owner of the land.

Numerous other laws have authorized the disposition of federal lands, including the Isolated Tract Act of 1846, the Townsite Act of 1864, the various Railroad Right of Way Acts, the Recreation and Public Purposes Act of 1926 and the Small Tract Act of 1938. Although virtually all laws authorizing the disposition of federal lands to private parties were repealed by the BLM Organic Act, the provisions of the various acts pursuant to which these lands were conveyed governed the reservation of minerals, or selected minerals, and each must be examined in detail to ascertain the status of the lands conveyed pursuant to these statutory provisions. The disposition of federal lands is now governed by the BLM Organic Act which requires, with limited exceptions, that minerals be reserved to the United States in all conveyances of federal land.

6. Reclamation Withdrawals

The public domain of the United States in Arizona may be withdrawn for reclamation purposes, and substantial portions of the public domain have been included in such withdrawals along the Colorado, Gila, Salt and Bill Williams Rivers and some tributaries. However, these areas do not necessarily remain closed to entry under the general mining laws. It is within the discretion of the Secretary of the Interior to determine whether or not an area withdrawn for reclamation purposes shall be restored to mineral entry and the conditions under which mining shall be conducted. (43 U.S.C. § 154). Mining locations in some areas may be entirely prohibited, while in other areas they may be made subject to restrictions which will be incorporated into any mineral patent that may be issued.

The office of the State Director of the Bureau of Land Management, Phoenix, Arizona is authorized to receive applications for the "Restoration of Withdrawal" and, after consulting with the Bureau of Reclamation, if the latter office does not report adversely, may grant such restoration and designate the restrictions applicable to mining operations.

sections and a horizontal line separates north-south sections.

All of the foregoing is illustrated by the maps on the opposite page. Four townships and the numbering of the sections within the townships are shown. Additional diagrams show how a single section is further subdivided into 40-acre tracts, and how land within a section may be described.

Public land surveys made prior to 1910 are marked by stone corners. These are firmly set stones and, for section corners, will be notched on the south and the east side with as many miles as the corner is from the south and the east boundary of the township. Thus, a corner common to sections 15, 16, 21, 22, for example, will have 3 notches on its south side or edge, and 3 notches on its east side or edge. The quarter-section corners will have "¼" chiseled on the stone.

J. MINING PARTNERSHIP AND GRUBSTAKE AGREEMENTS

A mining partnership differs from the ordinary general partnership since a sale of one partner's interest will not dissolve the partnership. Neither does the death of a partner terminate the partnership, for the successor to the deceased becomes the partner of the survivor. In both general and mining partnerships, one partner may bind the other for obligations incurred in the conduct of the business.

A grubstake is an agreement between two or more persons whereby one party usually furnishes money, or money and supplies, and the other party prospects for minerals and locates mining claims. The parties are tenants in common of the claims thus located, and the agreement may even constitute a mining partnership. Since such agreements are usually verbal, it is difficult to determine what was intended if a dispute arises. Grubstake agreements should be reduced to writing and should clearly state the exact terms on which the parties have agreed.

K. PUBLIC LAND SURVEY

Anyone seeking to acquire rights in land, whether pursuant to a mining location or otherwise, must understand the survey system which forms the basis for property descriptions.

Lands are surveyed into townships 6 miles square. Surveys start from an initial point from which a base line is carried east and west, and a guide meridian north and south. In Arizona this is known as the Gila and Salt River Meridian - usually written G&SRM. Townships are numbered consecutively north and south and ranges east and west, according to the distance and direction from the initial point. Thus, Kingman is situated in Township 21 North, Range 17 West; Lakeside is in Township 9 North, Range 22 East; Bisbee is in Township 23 South, Range 24 East; and Yuma is in Township 8 South, Range 23 West.

Each township is subdivided into 36 sections, each 1 mile square, the boundaries of which run due north and south and east and west in a regular and uniform township. Since 1910, at the corners of each section the surveyor has set an iron pipe with a brass cap which is stamped with the township, range and the sections having a common corner. At each one-half-mile on each section line a smaller pipe is set with a cap which is stamped "¼", designating it as quarter corner, and the sections to which it is common are also marked. A vertical line separates the east-west

7. Lake Mead National Recreation Area

The Lake Mead Recreation Area is covered by several withdrawals. Mining operations are not totally prohibited, but are limited to leasing under such restrictions as will not prevent interference with the activities of the National Park Service, the U.S. Fish and Wildlife Service and the Bureau of Reclamation. (16 U.S.C. § 460n). For details, inquiries should be made to Lake Mead Recreation Headquarters, Boulder City, Nevada or to the U.S. Bureau of Land Management, Phoenix, Arizona.

8. Power Sites

By the terms of the "Mining Claims Rights Restoration Act of 1955" (30 U.S.C. § 621), all public lands of the United States previously or thereafter reserved for power development or power sites were opened to entry for the location and patent of mining claims, both lode and placer, under the general mining laws. All power rights in such lands were retained by the United States.

The locator of a mining claim on land reserved for such purposes must, within 60 days of location, file a copy of the notice of location with the U.S. Bureau of Land Management, Phoenix, Arizona. A placer claimant may not conduct mining operations for a period of 60 days after the date of filing such notice. Within this latter 60-day period, the Secretary of the Interior may serve the locator with a notice of hearing to determine whether placer mining operations would substantially interfere with other uses of the land. Following the hearing placer mining may be allowed, prohibited or permitted with certain restrictions. The act contains no such limitation with respect to lode mining claims. Within 60 days after the expiration of any assessment year, a statement as to the assessment work done or improvements made on both lode and placer claims must be filed with the Bureau of Land Management.

9. State Lands

Lands owned by the State of Arizona are open to prospecting and location. State owned minerals within these lands are subject to state law and not federal law. State mineral laws are discussed beginning at page 57.

10. City of Prescott Watershed

Mining locations made after January 19, 1933 within approximately 3,600 acres in the Prescott Municipal Watershed situated in the Prescott National Forest are subject to certain restrictions named in the law regarding

the acquisition and use of surface resources. Valid claims in existence on the above date and thereafter maintained may proceed to patent without these restrictions. (16 U.S.C. § 482a).

11. Game Refuges and Wildlife Areas

Lands within state game refuges are generally open to the acquisition of mineral rights. However, certain access restrictions may be imposed by the Arizona Game and Fish Commission. Generally, lands which are a part of the National Wildlife Refuge System, including refuges, ranges, management areas, waterfowl protection areas and other areas for the protection and conservation of wildlife, are not open to mineral entry. See page 18 for additional information regarding such areas.

12. Stock Driveways

Mineral rights may be acquired in stock driveways. However, limitations are imposed upon the conduct of operations on such lands and the locator acquires restricted surface rights.

B. LANDS NOT OPEN TO MINERAL ENTRY

Throughout Arizona there are large areas of public domain that are not open to mining entry. The withdrawals are so numerous that it is beyond the scope of this booklet to attempt a complete coverage of such withdrawals. Furthermore, these areas change from day to day, and a published list rapidly becomes obsolete. The following comments are intended to convey only a general idea of lands not open to mining location or entry in order that the prospector may be alert to such a possibility so that he may make the recommended investigations of the records in the county, state and federal offices to determine the land status.

It should be noted that if a claim is located on land not open to location, the subsequent opening of the area to location will not validate the claim. This principle applies to withdrawals for reclamation, power sites, recreational areas, military reservations, Indian reservations and other withdrawals from mineral entry.

1. Classification Act of 1964 and BLM Organic Act

In 1964 Congress enacted two statutes which provided for the classification and disposal of public lands. One

which require an application for use and obtaining a permit for such use. There must be strict compliance with these laws in order to obtain water rights.

Percolating ground water is not subject to the Arizona statutes relating to appropriation. The mine operator may use such water on the land from which it is obtained for mining and milling and other purposes as he may deem appropriate. Should it become necessary to obtain water from other sources, such as a flowing stream or a spring, even though found upon the mining claim, a permit from the state is required. Instructions and forms for making application for water rights may be obtained from the Arizona Water Commission, Phoenix, Arizona, and it may be desirable to obtain qualified assistance for the completion and processing of applications to appropriate water rights.

Even when water is not subject to the appropriation procedures, no well may be drilled for the development and use of groundwater without first filing a notice of intention to drill with the Arizona Water Commission. Additionally, such water may be subject to restrictions on the nature and place of its use.

It should be noted that the current Arizona statutes relating to groundwater are undergoing substantial revision by the Arizona Groundwater Management Study Commission, and new legislation may be submitted to the state legislature in the near future.

I. ROADS, RIGHTS-OF-WAY AND WASTE DISPOSAL

Problems are occasionally encountered regarding the use of lands in conjunction with mining operations, such as the use of existing roads, the establishment of new ones, rights-of-way for pipelines and power lines and other uses of the land. Generally, such matters can be resolved to the mutual satisfaction of the prospector and the owner of the land in question. If agreement cannot be reached, there are provisions in the Arizona statutes for exercise of the right of eminent domain to acquire land for waste and tailings disposal, for establishment of roads, pipelines, and transmission lines.

Information regarding rights-of-way on state lands can be obtained from the State Land Department, Phoenix, Arizona. Applications for rights-of-way on federal lands, when required should be directed to the Bureau of Land Management, Phoenix, Arizona or the agency having administrative responsibility for the land in question.

Clean Air Act of 1963, as amended, (42 U.S.C. § 7401), (pursuant to which ambient air quality standards and pollutant limitations are established) and the Federal Water Pollution Control Act (33 U.S.C. § 1251) (which regulates effluent discharge). Other legislation, such as the Noise Control Act of 1972 (42 U.S.C. § 4901), the Safe Drinking Water Act (42 U.S.C. § 300f) and the Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901) may also be applicable to mining activities. Additional legislation provides protection for endangered species of wildlife and plants and for the protection and preservation of historical, archeological, cultural and scientific resources. Numerous additional statutes, regulations and licensing requirements are applicable to uranium operations, including the recently enacted Uranium Mill Tailings Act of 1978 (42 U.S.C. § 2111), which regulates the use and disposition of tailings and by-product materials from uranium operations.

Much of the legislation discussed above is supplemented by state statutes and regulations, and in some instances by county and municipal ordinances.

Information regarding these matters may be obtained from the respective state or federal agency responsible for the administration of these laws.

G. TAXES

In Arizona an unpatented mining claim not being operated is not assessed for taxes. A patented mining claim not being operated and buildings and improvements on either kind of claim not being operated are taxed on an assessed valuation of 18 percent of the market value or 25 percent of market value if they are used for commercial or industrial purposes. Producing mines or mining claims, the personal property and improvements thereto and the mills and smelters operated in conjunction with such mines are taxed on an assessed valuation of 60 percent of the market value. Additional taxes are levied based on the gross proceeds from mining operations.

H. WATER AND WATER RIGHTS

In an arid state such as Arizona, rights to surface waters are based upon prior appropriation. In the early history of the state these rights were acquired by prior beneficial use alone, but are now regulated by state laws

act, commonly known as the Classification Act, provided that the Secretary of the Interior was to develop and promulgate criteria for the classification of public lands and was to review such lands for a determination of their suitability for disposal or for retention and interim management pending implementation of the recommendations made by a review commission. (43 U.S.C § 1411). The companion act authorized the Secretary of the Interior to dispose of lands which had "been classified for disposal." (43 U.S.C. § 1421).

Although both acts expired by their own terms on December 31, 1970, these acts are of potential significance to the mineral prospector. The Classification Act provided that publication in the Federal Register of a proposed classification segregated the land from entry under the general mining laws and the mineral leasing laws unless the notice otherwise specified. The segregation was effective for a 2-year period and could be extended for an additional 2-year period. Lands classified for disposal and subsequently sold contained a reservation of minerals to the United States. However, the terms of the act provided that upon such sales, the lands were withdrawn from appropriation under the mining and leasing laws. Although the act expired December 31, 1970, sales for which notice had been published prior to the expiration date could be consummated and a patent issued in accordance with the terms of the act.

Classifications, withdrawals and sales are now governed by the provisions of the BLM Organic Act. The act directs the Secretary of the Interior to prepare and maintain an inventory of all public lands and their resources and to develop and maintain land use plans for the public lands. The act also governs the withdrawal and disposition of public lands. Notices or applications to withdraw public lands must be published in the Federal Register and such notices have the effect of segregating the public land from mining and leasing entry to the extent specified in the notice. If action on the withdrawal is not taken within 2 years, the segregative effect of the proposed withdrawal expires at the end of the 2-year period. The BLM Organic Act also contains a review procedure pursuant to which most public land withdrawals which have closed lands to mining and leasing are to be reviewed within 15 years and recommendations made for the restoration of the lands to mineral entry or leasing or the continuation of the withdrawal.

The BLM Organic Act also provides for the sale and disposition of public lands which are determined to be unsuitable or no longer required for federal use or which are necessary for selected private uses. With limited exceptions, all dispositions of public land pursuant to the BLM Organic Act must contain a reservation of minerals to the United States, together with the right to prospect, mine and remove the minerals under applicable laws and regulations promulgated by the Secretary.

2. National Parks and Monuments

National parks and monuments are not open to mineral entry. Such areas include the Grand Canyon and Petrified Forest National Parks, and the Chiricahua, Organ Pipe Cactus, Saguaro and Wupatki National Monuments, and many others in different parts of the state which have been established for scientific, historical, educational, scenic or recreational purposes.

All lands within these areas are now withdrawn from location, leasing or entry under the public land laws. Although as recently as 1976 Organ Pipe Cactus National Monument and Coronado National Memorial were open to mineral location, these areas are now closed. Claims which were valid at the time of the establishment of the respective park or monument, or at the time of withdrawal from mineral entry, retain their validity. However, such claims are subject to stringent restrictions, including limitations on access and surface operations. In some areas, including Organ Pipe Cactus National Monument and Coronado National Memorial, mining operations have been temporarily suspended. Information regarding these limitations may be obtained from the Superintendent of the respective park or monument.

3. Recreational or Other Public Uses

In addition to national parks and monuments and national recreation areas, other areas may be set aside for public use. The state, a county or a municipality may petition for the use of such land. (43 U.S.C § 869). As a general rule, after receipt of a petition to establish an area for recreational or other public use, the Bureau of Land Management withdraws the contemplated area from all forms of entry and during such time all mining locations are prohibited. The lands may be leased or sold by the United States to the petitioning body. The statute expressly provides that each patent or lease so issued shall contain a reservation to the United States of all mineral deposits in the lands conveyed or leased and of the right to mine and remove the same under applicable laws and regulations to be established by the Secretary of the Interior. Unless and until such regulations are issued, the area remains closed to mineral entry.

Examples of such recreational areas are the Tucson Mountain Park, leased to the Pima County Board of Supervisors, and the Phoenix Mountain Park. The lands in Phoenix Mountain Park were purchased from the United States under a special act of Congress, subject to a mineral reservation to the United States and a provision (effective 1927) that mining be conducted only under such rules and regulations as the Secretary of the Interior may prescribe. In

should be informed as to applicable state mine safety laws and regulations. These may be obtained in booklet form from the office of the State Mine Inspector, 1700 West Washington, Phoenix, Arizona 85007. Additionally, the operator should be aware of the potential applicability of federal statutes and regulations pursuant to the Federal Mine Safety and Health Act (30 U.S.C. § 801). While an analysis of these statutes and regulations is beyond the scope of this booklet, the operator should be aware of their broad applicability and of the health and safety standards which are imposed. Additional information may be obtained from the Mining Enforcement and Safety Administration, Phoenix, Arizona.

D. WORKMEN'S COMPENSATION

Every employer, except the employer of domestic servants, is subject to the provisions of the Arizona statutes relating to Workmen's Compensation for both occupational accidents and diseases. Every operator should familiarize himself with the regulations and the law in order to insure compliance with their requirements. Complete information may be obtained from the Industrial Commission of Arizona, 1601 West Jefferson, Phoenix, Arizona 85007.

E. LABOR LAWS

The statutes pertaining to labor in mines in Arizona will be found in a booklet issued by the State Mine Inspector's Office, Phoenix, Arizona. Information may also be obtained from the Industrial Commission of Arizona. It should be noted that the mine operator must not employ a person under 16 years of age.

F. ENVIRONMENTAL PROTECTION

In addition to the numerous federal and state statutes discussed throughout this booklet, the mineral prospector should be aware of other federal and state statutes and regulations pertaining to environmental protection. Some of the principal legislation includes the National Environmental Policy Act of 1969 (42 U.S.C. § 4321), (pursuant to which an environmental impact statement may be required for certain exploration and mining activities), the

does not require a spouse's signature on a conveyance of an unpatented mining claim by the other spouse. However, it is recommended that both join in the conveyance. Both spouses must join in the conveyance of patented claims or in the assignment of a mineral lease on state land.

Pursuant to the BLM Organic Act, Department of Interior regulations require that whenever the owner of a mining claim, mill site or tunnel site which has been filed with the Bureau of Land Management sells, assigns or otherwise transfers all or any part of his interest, the transferee must file a notice of transfer with the Bureau of Land Management, Phoenix, Arizona within 60 days after completion of the transaction. The notice must contain the serial number assigned to the claim and the name and mailing address of the person or persons to whom the interest was sold, assigned or otherwise transferred. If a person acquires an interest through inheritance, he has 60 days after completion of the transfer within which to comply with the above requirements. There is no fee for filing the notice of transfer of interest. The only effect of failure to file this notice is that in the event the claim is contested only the owners of record with the Bureau of Land Management will be personally notified of the contest. Any other owners will be put on notice only by publication and will be bound by any contest proceeding even though they have not been personally served.

B. NO LIEN NOTICE

The owner of a mine or mining claim can protect himself against liens by posting a nonliability notice, as provided in A.R.S. § 33-990 when the property is being worked by others under a lease, bond or option. The law requires that the owner conspicuously post the notice at the collar of all working shafts, tunnels and entrances to the mine and boarding houses, on or before the day the lessee or those working the claim begin operations. A copy must be recorded in the office of the recorder of the county in which the mine or claim is located within 30 days after the date of the lease, bond or option. Failure to post such a notice renders the property subject to labor and material liens. A form of no lien notice is included at the back of this booklet.

C. MINE SAFETY RULES

Prior to commencing operations a mining operator

the case of both parks, such regulations have never been issued, and the park areas remain closed to mineral entry.

Other forms of recreational withdrawals, such as campsites in the national forests, may also be closed to mineral entry. These are usually small areas and are not generally of significance.

4. Wilderness Areas

A National Wilderness Preservation System was established by legislation which became effective in 1964, and which is commonly known as the Wilderness Act of 1964. (16 U.S.C § 1131). The system is to be composed of federally owned areas designated by Congress as "wilderness areas." The act gave immediate wilderness status to national forest areas classified as "wilderness," "wild" or "canoe" at least 30 days before the effective date of the act. The act also directed a review of national forest primitive areas and roadless areas within the national park system and national wildlife refuges and game ranges for possible designation as wilderness areas. Pursuant to other authority, other national forest lands have been and continue to be evaluated for possible inclusion in the wilderness system. Additions to the wilderness system may be made only by act of Congress.

The Wilderness Act provided for the continued applicability of the mining and leasing laws until midnight December 31, 1983, after which time the lands in wilderness areas will be withdrawn from mineral entry. All prospecting, mining and leasing activities within wilderness areas are subject to regulations promulgated by the Secretary of Agriculture governing mining activity in national forest lands (see page 45) and special regulations governing activities within wilderness areas. Mining activity must be conducted in a manner consistent with the preservation of the wilderness character of the lands and stringent access and operating limitations are imposed. Mechanical equipment is authorized only when essential. The Wilderness Act provides that claims located after September 3, 1964 will entitle the claimant only to such use of the surface as is reasonably required in connection with mining operations and requires restoration as near as practicable of the surface of the land disturbed by mining activity. All patents issued for claims within wilderness areas grant title only to the mineral deposit and to timber necessary for mining, and the surface and other surface resources are to be reserved to the United States.

A wilderness review program for lands administered by the Bureau of Land Management has been mandated by the BLM Organic Act. Public lands identified as suitable for

inclusion in the wilderness system are to be recommended to Congress for designation as wilderness areas. During the review process, public lands are managed so as not to impair their suitability for wilderness designation. However, existing mining and leasing activities may continue in the manner and to the degree in which such activities were conducted on October 21, 1976. The act also specifies that during the review period the lands remain subject to appropriation under the mining and leasing laws unless withdrawn from entry for reasons other than their preservation as wilderness. At the printing of this booklet, final regulations are being prepared by the Department of Interior governing mineral operations on public lands subject to wilderness review under the BLM Organic Act. See page 48.

At the present time, 13 regions in Arizona have been designated as wilderness areas pursuant to the Wilderness Act. These include four national monument areas (Chiricahua, Organ Pipe Cactus, Petrified Forest and Saguaro National Monument Wilderness Areas) and nine national forest areas (Chiricahua, Galiuro, Mazatzal, Mt. Baldy, Pine Mountain, Pusch Ridge, Sierra Ancha, Superstition and Sycamore Canyon). Numerous other areas have either been endorsed by the administration for inclusion in the wilderness system, including the Imperial, Cabeza Prieta and Kofa National Wildlife Refuges, or have been recommended to the administration for possible inclusion. Several other areas have been designated for further planning studies and possible future inclusion in the wilderness system. Recommended and future planning areas are subject to the regulations governing mining and leasing operations in wilderness areas.

The Bureau of Land Management wilderness review program, which is being conducted at this time, will identify Bureau of Land Management lands having potential wilderness qualities. During the inventory process, those lands clearly lacking potential wilderness characteristics will be eliminated from further consideration and the remaining lands will be subject to more intensive review. For information regarding the current status of specific lands, contact the Bureau of Land Management, Phoenix, Arizona.

5. Experimental Forests and Ranges

Lands such as the Sierra Ancha Experimental Forest within the Tonto National Forest in Gila County, and the Santa Rita Experimental Range in the Coronado National Forest in Pima County, are designated for special research purposes. The Sierra Ancha is closed to all forms of mineral entry, including both the mining and the leasing laws. The Santa Rita Range is closed to mining location, but is subject to the leasing laws.

issued pursuant to competitive bidding. Upon receipt of a lease application, the department publishes a call for bids, describing the land involved, the royalty and the annual rental which will be required. The lease is offered to the highest and best bidder based upon the first year's bonus to be paid to the State Land Department.

All leases must provide for the payment of a royalty of not less 12½ percent of the gross value of the resources at the well head and an annual rental of not less than $1.00 per acre. Leases are issued for a primary term of 10 years and as long thereafter as geothermal resources are produced in paying quantities. In the event drilling is being diligently pursued at the expiration of the lease term, the lease may continue in effect for an additional 2-year period. Not more than 2,560 acres may be included within any one lease. While the lease lands must be in as compact a body as possible, noncontiguous lands may be included within one lease. The lessee may be required to post surface damage and restoration bonds.

Application forms and additional information pertaining to geothermal leasing may be obtained from the State Land Department, Phoenix, Arizona.

G. LEASE OF STATE LANDS FOR COMMERCIAL PURPOSES AND RIGHTS-OF-WAY

State mineral leases grant the lessee the right "to use as much of the surface as required for purposes incident to mining." Oil and gas leases provide that "the lessee shall have the right to use as much of the surface of the lands as reasonably necessary for its operations under the lease," and geothermal lessees "have the right to use as much of the surface of the lands as reasonably necessary for its operations under the lease as determined by the department." Should additional state land be required for incidental uses, application should be made to the State Land Department for a commercial or right-of-way lease for the intended uses.

VIII. GENERAL INFORMATION

A. CONVEYANCE OF MINING CLAIMS

Although Arizona is a community property state, the law

A noncompetitive lease is issued for a term of 5 years and for as long thereafter as oil, gas or other hydrocarbon substances are procured and produced in paying quantities. A lease upon which drilling operations are being diligently pursued at the time of its expiration may continue in effect for a period of 2 additional years and so long thereafter as the oil, gas and other hydrocarbons are produced in paying quantities.

When state lands are located within a known geological structure of a producing oil or gas field, the lands may be leased only by competitive bidding. Upon the receipt of an application to lease, or whenever in the opinion of the department there is a demand for the leasing of such lands, the department publishes notice for sealed bids. The notice specifies the royalty to be required, which may not be less than 12½ percent, and describes the offered land, which must be not less than a one-quarter section, nor more than 2 sections.

The bidder offering the highest bonus is awarded the competitive lease, which is for a term of 5 years and as long thereafter as oil, gas or other hydrocarbon substances are produced in paying quantities. An annual rental of $1.00 per acre must be paid, but is credited against any royalty payments due.

Additional information regarding oil and gas leasing may be obtained from the State Land Department, Phoenix, Arizona. Detailed state laws and regulations govern the production and conservation of oil and gas and provide for the issuance of well drilling permits, the spacing of wells, pooling of interests and other matters. Additional information may be obtained from the Arizona Oil and Gas Conservation Commission, Phoenix, Arizona.

F. LEASE OF STATE LANDS FOR GEOTHERMAL RESOURCES

The State Land Department is authorized to issue leases for the development and sale of geothermal resources. Geothermal resources include all products of geothermal processes embracing indigenous steam, hot water and hot brines, steams and other gases, including those resulting from water, fluids or gas artifically introduced into geothermal formations, heat or other associated energy found in geothermal formations and any mineral or minerals, exclusive of fossil fuels and helium gas, which may be present or associated with geothermal steam, water or brines. The geothermal statutes do not contain provisions for prospecting permits or noncompetitive leases for the development of geothermal resources, and all leases must be

6. Military Reservations

The federal government has created numerous military reservations throughout the Western states which are closed to mineral entry. Some of the withdrawals for military purposes in Arizona include Fort Huachuca and Luke, Williams, Yuma and other air bases. Also included are gunnery and bombing ranges, such as the Luke-Williams and Wilcox Ranges and the Yuma Test Station.

7. Reclamation Withdrawals

If an area is withdrawn for possible use for the construction of reclamation facilities, mining claims may be located only if the Secretary of the Interior, acting within the discretion granted to him by law, declares the land open for entry under the mining laws. See page 8. Applications for restoration to entry may be filed with the Bureau of Land Management, Phoenix, Arizona by persons qualified to locate mining claims.

8. Residential Area Withdrawals

The Surface Mining Control and Reclamation Act of 1977 authorized the Secretary of the Interior to withdraw from mineral entry lands designated as unsuitable for mining operations. Public domain may be withdrawn pursuant to this authority only if the area consists of land of a predominantly urban or suburban character which is used primarily for residential or related purposes or if mining operations on federal lands would have an adverse impact on lands used primarily for residential or related purposes.

9. Agricultural Homesteads

Most of the minerals found on lands acquired pursuant to agricultural homesteads are not open to location under the mining laws. Nearly all of the few minerals reserved by the United States pursuant to such homesteads are subject to the leasing laws and not to location under the general mining law. See page 7.

10. Small Tracts for Residence and Other Uses

Prior to its repeal by the BLM Organic Act, the Small Tracts Act of 1938 authorized the Secretary of the Interior, in his discretion, to sell or lease a tract of vacant unreserved public land, not exceeding 5 acres, if the land was chiefly valuable for residential, recreation, business or community site purposes. (Formerly codified in 43 U.S.C.

§ 682a). Patents to such lands contain a reservation to the United States of all minerals, and the right to prospect for, mine and remove the same under such regulations as the Secretary of the Interior may prescribe. If no regulations are issued, the land remains closed to mining. Regulations have been issued pursuant to which leasable minerals on small tracts may be acquired, but regulations have not been issued for the acquisition of minerals under the general mining laws. Therefore, the lands remain closed to the location of mining claims.

11. Acquisition of Minerals by the Surface Owner

The BLM Organic Act authorizes the Secretary of the Interior to convey mineral interests owned by the United States to the owner of the surface estate. This authorization is limited to those situations where the surface is in non-federal ownership, and such a conveyance may be made only if it is determined that there are no known mineral values in the land or that the federal reservation of mineral rights precludes or interferes with nonmineral development of the land and that such development is a more beneficial use of the land. Mineral interests so conveyed vest in the surface owner and may not be acquired under the mining or leasing laws.

12. Tucson and Phoenix Withdrawals

Subject to valid existing rights, the mineral interests of the United States which had been reserved in patents or other conveyances issued under the public land laws (such as Stock-Raising Homestead patents) were withdrawn from appropriation under the mining and mineral leasing laws and from disposal under the Materials Disposal Act of 1947 as to specific lands in and around Tucson and Phoenix described in two acts which became effective October 5, 1962. (P.L. 87-747 and P.L. 87-754).

13. Indian Reservations

Indian reservations in Arizona total more than 19,400,000 acres or approximately 27 percent of the state's area. All reservations are now closed to the location of mining claims under the general mining laws. There may be valid claims in existence which were located when such lands were open for location, particularly on the Papago Reservation which was not closed to location until May 27, 1955. (25 U.S.C. § 463).

In general, Indian tribal lands may be leased for mining purposes by authority of the tribal council or other

an annual rental of not less than $1 per acre and the payment of a royalty in an amount which is not less than the true appraised value of the common mineral product.

Pursuant to an Arizona supreme court decision which established that common mineral products and other natural products of the land must be sold through competitive bidding, the State Land Department no longer issues leases for these materials. New regulations have been promulgated which require that all products be disposed of pursuant to public auction, except for sales to governmental agencies. An application to purchase common mineral products must be filed with the department. After the filing of the application, the department may issue permits for limited exploration and testing for such products on the land in question. All nongovernmental sales are by public auction after the advertising of the sale and pertinent terms, including the minimum royalty rate, which is established by appraisal.

The successful bidder must execute a sales agreement which is for a term of not more than 20 years. The royalty rate established by the bid is fixed for the first 2 years and thereafter is subject to reappraisal by the department. The sales agreement imposes limitations on the conduct of operations and requires surface restoration upon the termination of operations. The commissioner may require a bond to assure performance of the sales agreement, and a surface restoration and damage bond is mandatory.

E. LEASE OF STATE LANDS FOR OIL AND GAS

Leases for oil and gas on state land are acquired by direct application to the State Land Department and may not be acquired through the location of mineral claims or through a prospecting permit. As discussed below, both competitive and noncompetitive leases may be obtained.

When state lands are not located within any known geological structure of a producing oil and gas field, the person making the first application for the lease may be issued a lease without competitive bidding. Not more than 2,560 acres of land confined to an area of 6 miles square may be included in any one lease. The annual lease rental is $1.25 per acre, payable partly in advance and partly within 90 days after the discovery of oil or gas in paying quantities. A noncompetitive lease also requires the payment of a royalty of 12½ percent of the market value of all oil, gas and other hydrocarbons produced, sold and removed from the lands. The royalty is payable at the time of sale or removal, as the department may elect.

as is given to locators upon the public domain of the United States. The state mineral lessee is also accorded the right to use so much of the surface as is required for purposes incidental to mining, and the right of ingress to and egress from other state lands, whether or not leased for purposes other than mining.

The annual rental for a mineral lease is $15 per claim, which is payable in advance at the time of the application for the lease and at the beginning of each subsequent annual period. The state receives a royalty of 5 percent of the net value of the minerals produced from the claim, which is defined as the gross value after processing (where processing is necessary for commercial use) less the actual cost of transportation from the place of production to the place of processing, less costs of processing and taxes levied and paid upon the production thereof. In those cases where minerals are not processed for commercial use, the net value is the gross proceeds, or gross value, at the place of sale or use, less the actual cost of transportation from the place of production to the place of sale or use, less taxes, if any, levied and paid upon production.

A state mineral lessee must perform annual labor, as required by the laws of the United States, upon each claim (lease) or group of claims in common ownership. The annual labor must commence at the expiration of 1 year from the date of location, and the lessee must furnish proof of such performance to the State Land Commissioner within 90 days after the expiration of each annual period for performance.

D. LEASE OF STATE LANDS FOR COMMON MINERAL PRODUCTS

"Common mineral products, materials and property" are excluded from the location and leasing provisions applicable to valuable minerals. By statute, such products are defined as cinders, sand, gravel and associated rock, fill-dirt, common clay, disintegrated granite, boulders and loose float rock, waste rock and materials of similar occurrence commonly used as aggregate, road material, rip-rap, ballast, borrow, fill and other similar purposes. While these materials may not be acquired pursuant to a prospecting permit or the location of state mining claims, they may be purchased from the state.

The Arizona statutes provide that the State Land Department may issue leases for the severance, extraction and disposition of common mineral products from state lands. Such leases are to include not more than one legal subdivision of approximately 40 acres and are to be issued for a term of not more than 10 years. The statute provides for

authorized tribal representatives and with the approval of the Secretary of the Interior. Such leases are for a term not to exceed 10 years and so long thereafter as minerals are produced in paying quantitites. (25 U.S.C. § 396a). There are two reservations, the San Carlos and the Hualapai, where, pursuant to procedures established under the Indian Reorganization Act of 1934 (25 U.S.C. § 477), only the consent of the tribal council is necessary for a mineral lease with a term of no more than 10 years. However, a term of longer than 10 years requires the approval of the Secretary of the Interior or his duly authorized representative.

All lands allotted to Indians in severalty (with exceptions not applicable in Arizona) may be leased by the allottee for mining purposes for any term of years as may be deemed advisable by the Secretary of the Interior, who is authorized to make necessary rules and regulations to carry out the purpose of the statute. (25 U.S.C § 396). Regulations currently in effect provide that the term shall be the same as for tribal lands.

For details of prospecting and leasing procedures on that portion of the Navajo Reservation within the State of Arizona, contact the Navajo Area Office, Window Rock, Arizona 86515. For all other reservations within Arizona, communicate with the United States Bureau of Indian Affairs, Phoenix Area Office, Phoenix, Arizona 85012, or with the Superintendent of each agency. Agency headquarters from which information pertaining to the acquisition of mineral rights on Indian reservations in Arizona can be acquired are as follows:

Colorado River Indian Agency, Parker, Arizona 85344 (Colorado River and Fort Mojave Reservations)

Fort Apache Agency, Whiteriver, Arizona 85941 (Fort Apache Reservation)

Fort Yuma Indian Agency, Yuma, Arizona 85364 (Cocopah Reservation)

Hopi Indian Agency, P.O. Box 120, Oraibi, Arizona 85634 (Hopi and Kaibab Reservations)

Papago Indian Agency, Sells, Arizona 85634 (Papago and San Xavier Reservations)

Phoenix Consolidated Agency, Route 1, Box 700, Scottsdale, Arizona 85256 (Fort McDowell Reservation)

Pima Indian Agency, Sacaton, Arizona 85247 (Gila River and Maricopa Reservations)

Salt River Indian Agency, Scottsdale, Arizona 85251 (Salt River Reservation)

San Carlos Indian Agency, San Carlos, Arizona 85550 (San Carlos Reservation)

Truxton Canyon Indian Agency, Valentine, Arizona 86437 (Havasupai, Hualapai, Camp Verde and Yavapai Reservations)

14. Wildlife Refuges and Other Wildlife Areas

As a general rule, wildlife refuge areas and wildlife management areas are closed to mineral entry. However, virtually all wildlife refuge areas were established by executive order and the status of each area must be ascertained from the records of the Bureau of Land Management, Phoenix, Arizona. The Grand Canyon National Game Preserve, which covers approximately the area occupied by that portion of the Kaibab National Forest which lies north of the Colorado River, is closed to mineral location. Leasing may be permitted, but only pursuant to special conditions to insure no damage to the area or its wildlife. The Havasu Lake National Wildlife Refuge, the Imperial National Wildlife Refuge, and the Kofa, Cibola and Cabeza Prieta National Wildlife Refuges are closed to entry under the mining and leasing laws. In those cases where mining and prospecting are permitted to continue on valid mineral entries existing at the time of withdrawal, operations are subject to regulations governing such activities.

15. Administrative Sites

There are numerous withdrawals of lands for use as administrative sites, including ranger stations, inspection stations, border patrol stations and other similar uses. These lands are not open to mineral entry.

16. Uranium on Certain Withdrawn Lands

Certain withdrawn lands under the jurisdiction or control of the Department of Energy, which assumed certain functions of the Atomic Energy Commission and the Energy Research and Development Administration, may be leased in accordance with applicable regulations.

Upon termination of a prospecting permit, the permittee is required to submit to the State Land Department information concerning drilling, including the total depth, lithologic logs and logs of surveys including "gamma ray, resistivity, caliper and deviation surveys." No chemical assays are required and the information is kept confidential for a 1-year period. In addition, the permittee may request that the information be held confidential for an additional 1-year period.

The permittee has the exclusive right to apply for a mineral lease upon establishing that a valuable mineral deposit has been discovered on state land within the permit area. A separate lease is issued for each rectangular subdivision of 20 acres, more or less, or lots within which a discovery has been made. Upon receipt of a lease application, the required filing fee and satisfactory proof of discovery of a valuable mineral deposit, the commissioner will issue a mineral lease to the applicant. For purposes of the annual labor requirement, the land within the rectangular subdivision or lot for which such lease is issued is considered a mining claim and is deemed to have been located as of the date of the filing of the lease application. No extralateral rights are acquired for leases issued pursuant to a prospecting permit.

C. LEASE OF STATE LANDS FOR VALUABLE MINERALS

As previously noted, neither a state mineral claim nor a prospecting permit results in the right to mine and remove valuable minerals from state land. The locator or permittee must obtain from the State Land Department a mineral lease, and all mining operations must be conducted in accordance with the terms of the lease. This section deals with leases for valuable minerals and not common mineral materials which are discussed separately at page 64.

Both the mineral locator and the permittee under a prospecting permit have a preferred right to obtain a mineral lease upon the discovery of a valuable mineral deposit and application to the State Land Department. All mineral leases are issued for a term of 20 years, with a right to renew for an additional 20-year term. A state mineral lease confers the right to extract and ship minerals, mineral compounds and mineral aggregates from the claim. On all leases except those acquired pursuant to a Type A location, this right is limited to the area located within planes drawn vertically downward through the exterior boundary lines of the claim. In the case of leases obtained pursuant to Type A locations, the lease confers extralateral rights on the discovery vein in the same manner

The statutes define the term "exploration" as activity conducted on state land to determine the existence or non-existence of a valuable mineral deposit, including geological, geochemical or geophysical surveys conducted by qualified experts, and drilling, sampling and excavation, together with the costs of assay and metallurgical testing of samples from the land. Formerly, all exploration work had to be performed within the boundaries of a single permit. However, the statute has been amended, and a permittee may expend the required sums on one or more contiguous permits under a common plan of development so long as the total area of the contiguous permits can be included within a square measuring 3 miles on a side. Where work in excess of the annual expenditure requirements is performed, the permittee may carry such excess expenditures forward and apply them to expenditure requirements for succeeding permit years. If the permittee is unable or unwilling to expend funds for exploration, he may, in lieu of exploration work, make a cash payment to the State Land Department in the amount required for exploration expenditures.

The initial rental fee of $2 per acre paid at the time of obtaining the permit covers the first 2 years' rental, and even though the permittee must make application for renewal and submit proof of expenditures at the end of the first year, no additional rent is then due. The last 3 annual periods for which a prospecting permit may be renewed are subject to an annual rental of $1 per acre for the land for which the renewal application is filed. The permittee may relinquish all or any part of a prospecting permit at any time, but no part of the advance rental may be refunded nor does such a relinquishment excuse the annual expenditure requirement for any permit year commencing prior to such relinquishment.

While the mineral exploration permit is in force, no person except the permittee and the authorized agents and employees of the permittee are entitled to explore for valuable minerals on the state land covered by the permit. The permittee has such surface rights as are necessary for prospecting and exploration for minerals, but may remove from the land only that amount of mineral required for sampling, assay and metallurgical test purposes. The permittee also has the right of ingress and egress from the land across other state lands along routes approved by the commissioner.

An exploration permit may be assigned in whole or in part by the permittee, but an assignment is not effective until a copy is filed with the department and approved by the commissioner.

17. Spanish Land Grants

The lands in a valid Spanish Land Grant are not, as a general rule, open to mining locations, since all mines and minerals were usually included with the grant. Although Congress provided that certain confirmation patents were to reserve to the United States "gold, silver, or quicksilver mines or minerals," such reservations apply only to such mines and minerals known to exist at the time of the confirmation patents. These grants have given rise to many complex legal questions, and the title to each must be examined to determine the status of mineral ownership.

18. Mexico-United States Border

By a presidential proclamation in 1907 all public lands within 60 feet of the international boundary between Mexico and the United States were reserved from entry under the general mining and leasing laws.

19. Railroad Lands

Pursuant to several acts, the Congress of the United States granted public lands to the transcontinental railroads for the purpose of aiding in the construction of railroads across the country. As a general rule, these grants excluded mineral lands, except lands known to contain iron and coal. However, the patents which were issued to the railroads contained no reservations of minerals, and the railroads thus acquired title to any minerals within these lands. Subsequently, the railroads sold substantial quantities of such land, but in most instances retained the minerals. Accordingly, mineral rights in railroad lands are often vested in private parties and must be acquired by lease or purchase. The records for each tract of land must be carefully examined to determine the status of mineral ownership, not only with respect to the original grant but also any subsequent conveyances or exchanges.

III. MINING LOCATIONS ON PUBLIC DOMAIN OF THE UNITED STATES

A. SUBSTANCES WHICH MAY BE LOCATED

A majority of the mineral substances commonly sought on

public domain of the United States situated in Arizona are subject to mining location under the general mining laws. The following are exceptions: deposits of coal, oil, gas, oil shale, phosphate, geothermal resources and certain sodium and potassium compounds, all of which may be acquired only under the mineral leasing laws. See page 49 for information concerning the leasing laws. Additionally, common varieties of sand, stone, gravel, pumice, pumicite, cinders, clay, and similar surface resources may not be acquired by location under the general mining laws. These substances are obtained by purchase from the United States under the terms of the Materials Disposal Act of 1947. See page 52. Petrified wood has also been removed from location under the general mining laws. (30 U.S.C. § 611).

Exploration for minerals on lands owned by the State of Arizona is governed by state law and federal law is applicable only to the extent it is specifically referenced in the state statutes. Exploration rights for state owned minerals may be obtained through a prospecting permit for a maximum term of 5 years with an exclusive right to a mineral lease upon proof of discovery of valuable minerals. See page 60. Alternatively, upon the discovery of a valuable mineral deposit on state land, a state mining claim may be located. The acquisition of oil and gas rights are governed by separate legislation (see page 65), as are geothermal resources. See page 66. Pursuant to either a prospecting permit or a state mining claim, upon the discovery of a valuable mineral deposit a mineral lease may be obtained. Prior to the extraction of any minerals, oil or gas or geothermal resources from state land, a lease must be obtained from the State Land Department. The term "mineral" does not include "common mineral products, materials and property," otherwise known as common varieties.

The manner in which mining claims are located varies according to whether the minerals are on public domain of the United States (or lands in which minerals have been reserved by the United States) or on lands owned by the State of Arizona. In some respects the procedures are similar, but in others it differs greatly. Care must be taken to determine whether the land is public domain or state land in order to apply the correct location procedures.

B. WHO MAY LOCATE A MINING CLAIM

Any citizen of the United States, or anyone who has declared his intention to become a citizen, an association of citizens or a qualified corporation may locate a mining

with other information required by the State Land Department. Applicaton forms are available from the department. The application and filing fee are filed with the State Land Department, and all applications are stamped with the time and date of filing with the department. A priority accrues based upon the time of filing, and the land is deemed to be withdrawn from mineral location while the application is pending.

If the State Land Commissioner finds that the applicant is entitled to a prospecting permit, the applicant is notified by registered or certified mail of the amount of rental to be paid for the prospecting permit and whether a bond will be required. Within 15 days after the mailing of this notice, the applicant must pay the initial rental, $2.00 per acre, for the land designated in the notice and, if required, file a bond. Upon payment of the rental and the filing of the required bond, the commissioner issues the prospecting permit. If the applicant fails to make the payment or furnish the bond within the 15-day period, the application is cancelled.

As noted above, the State Land Commissioner may in his discretion, require a surety bond for the payment of loss from damage or destruction caused by the permittee to grasses, forage, crops and improvements of the owner and the lessee of the surface of the state land to be included in the permit, or the land across which the permittee may exercise the right of ingress and egress. The commissioner may also require the permittee to furnish a bond which will guarantee restoration of the surface to its former condition upon partial or total relinquishment of land, or the cancellation or expiration of the permit other than by issuance of a mineral lease.

A prospecting permit is issued for an initial 1-year term and is subject to four annual renewals, for an aggregate term of not to exceed 5 years. The permit terminates automatically at the end of each annual term unless prior to expiration the permittee files with the department an application for renewal for the ensuing annual period. At the time of making application for renewal, the permittee must file an affidavit showing expenditures in "exploration" for mineral deposits in the amount required during each annual period. The required expenditure must be not less than $10 for each acre covered by the permit during each of the first 2 years and during the last 3 years not less than $20 dollars per year for each acre. In addition to the affidavit of expenditure which must be filed by the permittee when making application for renewal, other proof in support of such expenditures may be required by the commissioner.

As with a Type A location, one copy of the location notice, together with the county recorder's certificate of recordation, must be filed in the office of the State Land Commissioner within 30 days from the date of location. Additionally, the locator must submit evidence or proof of the discovery of a valuable deposit of mineral on each claim within 30 days after the time of location. The locator has a period of 90 days within which to file an application for a mineral lease, but a lease will not be issued unless the proof of discovery has been submitted within the 30-day period.

B. PROSPECTING PERMITS ON STATE LANDS

An alternative means for the acquisition of mineral rights on state lands is a state prospecting permit, which grants exclusive mineral prospecting rights on such lands during the time the permit is in effect. A permit may be effective for up to a maximum of 5 years, and the permittee may acquire a mineral lease on lands when a valuable mineral deposit has been discovered. A prospecting permit may not be used to explore for oil and gas, common mineral products or geothermal resources, all of which are governed by separate legislation. The prospecting permit provides a means in addition to the location of state mineral claims for acquiring a state mineral lease. Thus, a person desiring to obtain a state mineral lease may comply with either the procedures for the location of mineral claims or he may apply for a prospecting permit. However, the locator of a mineral claim has only the very limited period of 30 days in which to submit proof of discovery of a valuable mineral deposit and 90 days to apply for a lease, while the permit grants the prospector a term of up to 5 years in which to conduct exploration and submit proof of discovery. The prospecting permit provides a more realistic means of exploration for minerals which are located at depth and are generally covered completely by alluvium.

Any citizen of the United States, partnership or association of citizens, or a corporation organized under the laws of the United States or any state or territory and authorized to transact business in Arizona may apply to the State Land Commissioner for a mineral exploration permit on state land. An application may include one or more rectangular subdivisions of 20 acres, more or less, or lots, in any one section. If it is desired to explore land in different sections, a separate application must be made for the land in each section. There is no limit to the number of permits for which application may be made. The application must be in writing and contain a description of the land for which the applicant seeks a mineral exploration permit, together

claim upon public domain of the United States. The location of a mining claim by an alien or transfer to an alien is not absolutely void, but is voidable.

The statutes of Arizona provide that a mineral claim may be located upon state land by any citizen of the United States, partnership or association of citizens or a corporation organized under the laws of the United States or of any state or territory thereof.

There is no limitation on the number of mining locations that can be made by a qualified locator on federal or state lands.

C. GENERAL CONSIDERATIONS

1. Lodes and Placers

A valid mining claim within the State of Arizona upon public domain of the United States or on lands where the United States has reserved the minerals must be located either as a lode claim or a placer claim. A lode claim is defined as a "claim upon veins or lodes of quartz or other rock in place." (30 U.S.C. § 23). All "forms of deposit, excepting veins of quartz, or other rock in place . . ." are located as placers. (30 U.S.C. § 35). Thus, a well-defined vein confined within walls of country rock is located as a lode claim, while valuable minerals which occur as particles in loose, unconsolidated material, such as gold in sand and gravel, are located as a placer claim. When such a distinction is not clear-cut, it often becomes difficult to determine whether a deposit should be located as a lode or a placer. Nevertheless, the locator must make a decision. Unfortunately, he does so at his peril at the inception of the location, before he has had time to explore the deposit to determine its true geological characteristics. This problem is further complicated by court decisions, sometimes conflicting, rendered in borderline cases. In doubtful cases, the ground may be located by both lode and placer claims. Whether the mineral in a deposit is metallic or nonmetallic is not determinative. Rather, the nature of the mineral occurrence determines the correct type of claim.

The test to apply to determine the correct location is whether the deposit is in a vein, lode, ledge, zone or belt of mineralized rock lying within boundaries clearly separating it from the surrounding rock. If so, it should be located as a lode claim. If not, it should be located as a placer claim. This rule is not infallible, but it presents the best general rule which can be offered to the mining locator. The disseminated copper porphyry deposits commonly

found in Arizona have been customarily located and patented as lodes.

2. Federal and State Legislation

The federal mining law provides that a mining claim shall not exceed 1,500 feet in length along the vein or lode and shall not extend more than 300 feet on each side of the middle of the vein at the surface. (30 U.S.C. § 23). The states may enact legislation, if not in conflict with the laws of the United States, governing the location, manner of recording and amount of work necessary to hold possession of a mining claim, subject to the following federal requirements:

> The location must be distinctly marked on the ground so that its boundaries can be readily traced. All records of mining claims shall contain the name or names of the locators, 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. (30 U.S.C. § 28)

Thus, the federal law definitively establishes only the maximum dimensions of a mining claim and the requirements set forth above. All of the Western mining states have adopted legislation supplementing the federal laws, and no two states have identical provisions. The requirements of the individual states must be met in order to make a valid location within each state.

The courts have given a liberal construction to the mining laws, having in mind that they are intended for the benefit of the practical prospector and miner. However, there must be substantial compliance with the statutory requirements.

Assuming the land is open to mineral entry, the requirements to locate a mining claim on public domain in Arizona are:

1) Discovery;

2) Location by the posting of a location notice;

3) Recordation of a copy of the location notice and a map, plat or sketch;

4) The marking of boundaries on the ground; and

are not applicable. Since the performance of discovery work on claims located on federal lands is no longer required, it would appear that no discovery work is required to be performed for a Type A location. This does not eliminate the requirement, however, for the discovery of a valuable mineral deposit.

The Arizona statutes also require that the locator of a Type A claim submit to the State Land Commissioner satisfactory proof of the performance of discovery work within such reasonable time as the Land Commissioner prescribes. Current regulations of the State Land Department require that the evidence of discovery be provided within 30 days after the time of location.

After all of the required acts of location and filings have been completed, the locator has a preferred right to a mineral lease within 90 days after location. The locator of a Type A claim will acquire extralateral rights on the discovery vein to the same extent as similar locations on federal lands.

2. Location of a State Claim without Extralateral Rights (Type B Claim)

In addition to the Type A claim discussed above, the Arizona statutes provide that any mineral claim may be located in conformity with the lines of the public land survey and embracing not more than 20 acres. (A.R.S § 27-232(B)). A lease obtained pursuant to such a location does not confer extralateral rights and mining rights are confined within planes drawn vertically downward through the exterior boundary lines.

The statutory provisions for the location of a Type B claim do not incorporate the federal location procedures by reference, but rather set forth specific requirements for the location of such a claim. The locator must mark the location on the ground by erecting a monument or placing a post extending at least 3 feet above the surface of the ground at each angle corner of the claim, as nearly as possible. A memorandum stating the name of the locator, the name of the claim and designating the corner by reference to cardinal points must be attached to each monument or post. Within 30 days after the location, the locator must file for record in the office of the county recorder of the county in which the claim is located, a notice of location with the name of the locator, the name of the claim, the date of location, and the legal description of the land claimed.

Location or so-called discovery work is not required on Type B mineral claims, but proof of discovery is necessary.

Instructions and forms pertaining to prospecting permits, the location of mineral claims and applications for mineral, oil and gas and geothermal leases may be obtained from the State Land Department, 4th Floor, 1624 West Adams, Phoenix, Arizona 85007.

A. LOCATION OF MINERAL CLAIMS ON STATE LAND

The Arizona statutes provide that the discoverer of "a valuable mineral deposit on any state land may enter upon and locate the deposit as a mineral claim." (A.R.S. § 27-231). The term "mineral" is defined as including mineral compound and mineral aggregate. There are two types of state mineral claims, one of which includes extralateral rights, while the other does not. These are commonly referred to as Type A and Type B claims, respectively. The procedures to be followed for each type of claim is discussed below.

1. Location of a State Claim with Extralateral Rights (Type A Claim)

A mineral deposit which is a vein, lode or ledge may be located in the manner provided for the location of mineral claims upon the public domain of the United States. (A.R.S. § 27-232(A)). A copy of the location notice, together with the county recorder's certificate of record-ation, must be filed in the office of the State Land Commissioner within 30 days after the date of location. Additionally, the current Arizona statutes provide that the locator of a Type A claim must "perform discovery work required by law for mining claims under the laws of the United States . . . or an equivalent amount of development drilling of a reasonable value of one hundred dollars on each claim." (A.R.S. § 27-233(B)).

The statutory requirement for discovery work was not revised in conjunction with the revision of the state laws pertaining to the location of claims on federal lands, which became effective on September 3, 1978, and the discovery requirement for the location of a Type A claim must be interpreted in light of the recent amendments. As noted above, Type A claims must be located in the same manner as claims on federal lands. Thus, the locator must monument his claim, prepare the location notice and the required map, plat or sketch, as discussed beginning at page 25. It should be noted, however, that a copy of the recorded location notice must be filed with the State Land Department within 30 days after the date of location and thus the time periods relating to the location of claims on federal lands

5) The filing of a copy of the location notice and any required supplemental information with the Bureau of Land Management, Phoenix, Arizona.

3. Discovery

A "discovery" of mineral is the foundation upon which the entire mining law is based. It is the inception of title to a mining claim. The courts have uniformly held that a discovery on each and every claim is an indispensable prerequisite to the validity of each location. The discovery of mineral must be within the boundaries of each claim but need not be on the center line nor at the location monument. It may be in a drill hole, and, of course, may be on the outcrop of a lode.

Federal mining law does not specify how or where the discovery must be made on a mining claim. The Bureau of Land Management in patent proceedings accepts a discovery at any point within the claim, including discoveries made by diamond or churn drilling, and does not require that it be at the location monument. This is a sensible application of the law, particularly in view of recent developments in the field of geophysics whereby ore bodies have been discovered at depths ranging from a few hundred to more than a thousand feet below the surface. The only practical way to make a discovery at such depths is by drilling.

Federal mining law does not define discovery and no precise standards have been established by the Department of the Interior. The department, prior to the turn of the century, promulgated the "prudent man" test. The federal courts, including the United States Supreme Court, approved and adopted the "prudent man" test, the essence of which is that to constitute a discovery, minerals must be found in such quantity and quality 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 develop-ing a valuable mine. The department and the courts have consistently held that it is not sufficient that there is only a showing of minerals that would warrant further explo-ration in the hope of finding a valuable deposit. For a number of years the validity of mining claims was sustained and mineral patents granted on proof of the existence of mineralization which, under present-day rulings of the Department of the Interior, would be inadequate to sustain a patent or even the validity of an unpatented claim.

In more recent years the department has developed and the courts have sanctioned, a more stringent application of the "prudent man" test. Under this test, in order to establish a discovery, the locator must demonstrate the existence of a mineral deposit which can presently be mined,

removed and marketed at a profit. In determining whether a mineral deposit has such present economic value, consideration is given to all costs of production, including the cost of compliance with applicable labor, health, safety, environmental and other laws and regulations. Accessibility to market, availability of financing, adequacy of water supplies, and the current market price of the mineral or minerals to be extracted are also important factors in the determination of whether a discovery has been established.

The Department of the Interior is becoming increasingly more stringent in the application of this test to determine the adequacy of a mineral discovery both in patent proceedings and in contests challenging the validity of unpatented mining claims. Thus, the mining claim owner should be wary of initiating patent proceedings before sufficient exploration work has been completed to clearly demonstrate the existence of a valuable mineral deposit. If there is a failure to supply such proof, not only will the patent be denied but the mining claims may be declared invalid.

With the passage of years, easily found surface showings of minerals are becoming relatively scarce. The prospector is usually confronted with the necessity of locating his claim over ground which looks promising but which does not contain a then provable discovery. There is no prohibition in the law against making such a location. However, the locator's possessory rights (pedis possessio) depend upon actual possession of each claim and due diligence in trying to make a discovery thereon. To what extent the courts will protect the locator in that possession is not easily answered, for it depends upon the facts of each case. There is urgent need for a revision of the mining laws so as to permit the locator a reasonable time to establish a discovery.

The use of Geiger counters, scintillometers and various geophysical and geochemical techniques in the search for minerals raises an interesting question. Do the readings obtained on such instruments, standing alone, constitute a discovery of valuable mineral in a vein or lode sufficient to support a valid mining location? This matter has not been conclusively resolved by the courts or by legislation. Thus, the locator should support such readings by assays and actual sample evidence of mineralization.

In practice, the other acts of location often precede a discovery, but the location is valid only from the date of discovery. Therefore, it is possible that another locator may come upon the ground prior to discovery, in a manner sanctioned by law, and upon making a discovery locate a valid claim, thus extinguishing the attempted location of the first locator. Additionally, the validity of a mining

claimant ignores the published notice or does not establish the validity of his claim, the claim will be subject to the provisions of the act reserving surface resources to the United States prior to patent.

A person claiming a right to an unpatented mining claim located prior to the effective date of the act may insure that he receives a copy of any notice pertaining to a determination of surface rights by recording in the county recorder's office where the notice of location is recorded an acknowledged request for a copy of such notice. The request must contain the name and address of the person requesting a copy of the notice, the date of location, the book and page of recording of the location notice (and it is also advisable to include the book and page of any amended notices of location) and the section or sections of the public land surveys which are embraced by the mining claim.

VII. ACQUISITION OF MINERAL RIGHTS ON STATE LAND

The term "state lands" refers to lands and minerals owned by the State of Arizona. The acquisition of minerals on state land is governed by legislation found in Title 27 of the Arizona Revised Statutes and State Land Department regulations published by the Arizona Secretary of State. Neither the federal mining laws nor the state laws relating to the acquisition of federally owned minerals apply to state lands except as they may be specifically incorporated.

Minerals on state lands may be mined only pursuant to a state lease. Although mineral claims may be located on state land, this does not confer the right to extract minerals and the act of location is only a part of the procedure leading to the issuance of a mineral lease. A patent to state lands may not be acquired under the state mineral leasing laws and the greatest interest which a locator may acquire in state land is a leasehold for 20 years, with a preferred right to renewal.

All state lands are subject to a mining location except those lands under state leases for mineral, commercial or homesite purposes and lands being specifically used or controlled by state institutions. All state lands are subject to leasing for oil and gas under the provisions of Arizona statutes. Additionally, state lands may be leased for the development of geothermal resources. The acquisition of these substances on state land are also governed by state laws, and the federal statutes and regulations have no applicability.

reasonably incidental thereto. The mining claimant may use timber on the claim only to the extent required for his prospecting, mining or processing operations and uses reasonably incident thereto, including buildings, and to provide clearance for such operations or uses. Since the cutting or removal of timber must be in accordance with sound principles of forest management, except where required to provide clearance, it is advisable to consult the agency administering the land prior to the cutting of any timber.

A mining claim prior to patent is subject to the right of the United States to manage and dispose of both vegetative and mineral surface resources, except locatable minerals, as well as the right of the United States to use so much of the surface as may be necessary for such purposes and for access to adjacent land. However, such use must not endanger or materially interfere with the prospecting, mining or processing operations of the mineral locator. In the event the United States disposes of timber from the claim and subsequently the locator requires more timber for his mining operations than is available within the claim, he is entitled to obtain from other areas timber which is substantially equivalent in kind and quality to the timber disposed of by the United States from the claim.

The need for the Multiple Surface Use Act arose from the fact that thousands of mining claims had not been located for bona fide mining purposes, but for acquisition of timber, homesites, grazing, water and other nonmineral uses. To prevent these abuses, representatives of the mining industry and the federal government collaborated in drafting the act governing multiple surface use of unpatented claims. The rights of an owner to patent his claim are not diminished by the act, and when the patent issues he acquires full ownership of the surface and surface resources as well as the minerals, subject to the provisions of the Multiple Mineral Development Act, as discussed above. The act does not apply to lands in any national park, national monument or Indian reservation.

The Multiple Surface Use Act established a procedure for determining surface rights to claims located prior to July 23, 1955. The procedure is initiated by the federal agency which administers the public domain on which the claim is situated, and a notice is published stating that a determination of surface rights on the mining claim will be made. The claimant may file a verified statement containing the information required by the act, and the claim will be examined by a mineral examiner from the agency which administers the affected land. If the claim is found to be valid, a stipulation may be entered into establishing the locator's rights to the surface resources. If the examination discloses a doubt as to the validity of the claim, a hearing will be held on that issue. If the

claim without a discovery may be challenged by the federal government in an administrative contest proceeding to have the claim declared null and void.

Since the type of discovery and the manner of locating differ as between lodes and placers, each will be described separately.

D. LODE CLAIMS

1. Location

As noted above, the requirements of both the federal and state mining laws must be met in order to locate an unpatented mining claim. The following must be performed to locate a lode claim on public domain of the United States within the State of Arizona:

1) Make a discovery of "mineral in place," that is, enclosed within the surrounding country rock. Detached pieces of mineral that are scattered throughout or on top of the soil, commonly called "float," do not constitute a discovery which will validate a lode location.

2) Erect at one corner of the claim, and within the boundaries of the claim, a conspicuous monument of stones not less than 3 feet in height or an upright post securely fixed and projecting at least 4 feet above the ground.

3) Post a location notice signed by the name of the locator in or on the "location" monument or post. The notice, a form of which is included at the end of this booklet, must contain:

a) The name of the claim.

b) The name and address of the locator. The locator can locate for himself, for himself and others or for others.

c) The date of the location.

d) The length and width of the claim in feet and the distance in feet from the "location" monument to each end of the claim. As noted above, the maximum length is 1,500 feet and the maximum width 600 feet.

e) The general course of the claim.

f) The locality of the claim with reference to some natural object or permanent monument whereby the claim can be identified and, if known to the locator, the identification of the section, township and range in which the notice of location of the claim is posted. Note that in addition to the above, quarter sections encompassed within any portion of the claim must be included in the information filed with the Bureau of Land Management. See page 35.

2. Recording

Within 90 days from the time of location, an executed copy of the location notice must be recorded in the office of the recorder of the county in which the claim is situated, together with a map, plat or sketch of the claim. Note that the federal filings required by the BLM Organic Act must also be made within 90 days of the date of location. See page 34. If the posted notice of location does not contain the section, township and range in which the notice is posted, this information must be added to the notice prior to recording. If the land has not been surveyed, the locator must identify the projected, protracted or extended section, township and range in which the notice is posted.

The required map, plat or sketch must be:

1) In legible form and not more than 8½ inches by 14 inches in size;

2) On a scale of not more than 1 inch to 2,000 feet; and

3) Based upon the performance of a survey which is commensurate with the abilities of the locator.

The locator is not required to employ a professional surveyor or engineer for the preparation of the map, plat or sketch. However, the boundaries and position of the claim or claims must be set forth with such accuracy as would permit a reasonably knowledgeable person to find and identify the claim on the ground. The locator may show contiguous claims on one map, plat or sketch so long as the claim being located is clearly identified.

The map, plat or sketch must contain the following information:

nor by the locator of a mining claim under the general mining laws. The need for corrective legislation became apparent and Congress first passed temporary measures validating mining claims on leased lands and then followed with the enactment of permanent measures in the 1954 act.

The general purpose of the Multiple Mineral Development Act is to permit the full utilization of the same tract of land for the extraction of both leasable minerals and locatable minerals. In addition to providing procedures for the validation of certain previously located claims which otherwise would have been invalid, the act opened to location under the general mining law lands included within a prospecting permit or lease, or application therefor, and lands known to be valuable for minerals subject to disposition under the Leasing Act of 1920, as amended. The act was later amended to include lands subject to lease or permit or known to be valuable for geothermal resources. All claims located after August 13, 1954 are subject to a reservation to the United States of all leasable minerals and the right to enter upon and use so much of the surface of the claim as is necessary for the exploration, development and mining of such leasable minerals. Any patents issued for claims located after August 13, 1954 will be subject to the same reservation if at the time of the issuance of the patent the claimed lands were included in a permit or lease, or an application therefor, or were known to be valuable for leasable minerals.

All operations for leasable and locatable minerals are to be conducted, so far as reasonably practicable, in a manner compatible with one another and so as not to damage the deposit, the improvements or the facilities of the other party. Where simultaneous operations cannot be so conducted, provision is made for the resolution of conflicts by a court of competent jurisdiction.

The act also sets forth a procedure under which an applicant, offeror, permittee or lessee under the mineral leasing laws may require a mining claimant to come forth and assert any claim which the locator may have to leasable minerals by virtue of a location predating the act. Failure of a mining claim owner to establish such rights does not result in a forfeiture of his claim, but will subject the mining claim to the reservation to the United States of leasable minerals and other rights, as discussed above.

The Multiple Surface Use Act of 1955 (30 U.S.C. § 611) amended the general mining laws by limiting the rights of the holder of an unpatented mining claim in his use of the surface and surface resources. Prior to issuance of patent, any mining claim located after the effective date of the act, July 23, 1955, may not be used for any purposes other than prospecting, mining or processing operations and uses

possesses some property which gives it a special value for such uses, which value is reflected by the fact that it commands a higher price in the market place. Differences in chemical composition or physical properties are held to be immaterial if they do not result in a distinct economic advantage of one deposit over another.

Removal of mineral material under a belief that it is locatable may expose the miner to liability for wrongful removal of a mineral that is subject to sale under the Materials Disposal Act.

If a deposit of building stone should be found that has some property giving it distinct and special value, it should be located as a placer claim in accordance with the provision of a statute relating to building-stone entry under the mining laws. (30 U.S.C. § 161).

VI. MULTIPLE USE OF FEDERAL LANDS

The public domain is administered under a multiple use concept which is intended to maximize the benefits derived from public land and to provide, to the extent possible, for the coexistence of simultaneous multiple uses of public lands. Two acts passed in the mid-1950's greatly expanded multiple uses, particularly as they pertain to mineral exploration activities on public lands. These acts, both of which continue to be of significance to mineral prospectors, are discussed below.

The Multiple Mineral Development Act of 1954 (30 U.S.C. § 521) applies to public domain and lands wherein the United States has retained mineral rights. A brief explanation is necessary to understand the purpose of this legislation. The Leasing Act of 1920 did not expressly close any public lands to location of nonleasable minerals under the mining laws. However, it was determined by the Secretary of the Interior that those lands which were under lease or were known to contain leasable minerals were not open to location of other minerals under the mining laws. Similarly, it was held that location of a valid mining claim on lands not leased and not known to contain leasable minerals precluded the granting of a lease even though leasable minerals might subsequently be discovered on such lands.

With the discovery of uranium on the Colorado Plateau, great numbers of mining claims were located on land previously leased for oil and gas. This important source of fissionable material could be mined neither by the lessee

1) The name of the claim.

2) Whether the claim is a lode, placer or millsite claim.

3) The locality of the claim with reference to the section, township and range in which the claim is situated, together with a course and distance tie from a corner of the claim or continguous group of claims to a monument of the public land survey, if the land has been surveyed. If the land has not been surveyed, a corner of the claim or claim group must be tied by course and distance to an established survey monument of a United States government agency or United States mineral monument. If no such monument can be found through the exercise of reasonable diligence, the map must show the course and distance from one corner of the claim or claim group to some prominent natural object or other permanent monument described on such map.

4) The scale of the map.

5) The county in which the claim is situated.

6) A north arrow.

7) The type of corner and location monuments used.

8) The bearings and distances between corners.

When a mining claim is located on lands reserved for power sites, a copy of the location notice must be filed with the United States Bureau of Land Management, Phoenix, Arizona, within 60 days after date of location, as explained on page 9. In other instances, filings with the Bureau of Land Management, Phoenix, Arizona must be made within 90 days of the date of location.

3. Marking Boundaries and Performing Location Work

A lode claim must be monumented on the ground within 90 days from the time of location in a manner so that its boundaries can be readily traced. This is accomplished by erecting 6 substantial posts projecting at least 4 feet above the surface of the ground or by erecting substantial stone monuments at least 3 feet high. A post or monument

must be erected at each corner of the claim and at the center of each end line. A post must be not less than 1½ inches in cross section. The post may be of any material as long as it may be readily distinguished as a monument. Each monument must be marked so as to identify the corner or end center of the claim or claims to which it pertains, such as "N. E. Corner Patricia #1." Prior to September 3, 1978, the effective date of recent amendments to the Arizona location statutes, it was not necessary to so mark each of the monuments.

End lines must be parallel if the locator is to acquire extralateral rights in a vein or lode. If side lines are not straight lines, monuments must be erected at angle corners.

Prior to September 3, 1978, the Arizona location statutes required that a locator either sink a location shaft on the claim to a depth of at least 8 feet or, in lieu thereof, perform location work consisting of drilling a hole not less than 10 feet in depth in any one hole and costing at least $100 for the actual doing of such drilling at the point where done. Under certain circumstances, the law permitted drilling at one point for a group of contiguous claims. It was also necessary to record an affidavit of drilling. These requirements have been eliminated from the Arizona statutes, and Arizona law now requires only the posting of the location notice, the monumenting the claim, the preparation of the required map, plat or sketch and the recording of it, together with an executed copy of the location notice. Of course, the federal filing requirements must also be met. See page 34.

Failure to meet these requirements within the times and at the places specified is deemed an abandonment of the claim and all right and claim of the locator is forfeited. For the locator's own protection there should be full compliance with the law, and it is advisable to record the location notice and perform all other acts of location as rapidly as possible without necessarily taking advantage of the full statutory periods allowed.

4. Relocation

Arizona law provides that the relocation of an abandoned or forfeited claim may be made in the same manner as an original location. Upon relocation, the new locator may use the mineral discovery of the former locator and may adopt the monuments of the prior claim. If the original location work for the claim being relocated included the recording of a map, plat or sketch, the locator may perform relocation work by resurveying or by verifying the accuracy of the boundaries and positions of the claim as shown on the

varieties were expressly removed from the operation of the general mining laws by the Multiple Surface Use Act of 1955. (30 U.S.C. § 611). Such substances may not be acquired by the location of mining claims, but may be acquired only pursuant to the provisions of the Materials Act. However, this does not prevent a mining location based upon the discovery of some other mineral occurring with these common varieties. An example would be gold associated with gravel, which may be located as a placer claim. The Multiple Surface Use Act expressly provided that "common varieties" did not include deposits of such materials which are valuable because the deposit has some property giving it distinct and special value, and does not include so-called "block pumice" which occurs in nature in pieces having one dimension of 2 inches or more.

The Materials Disposal Act authorizes the Secretary of the Interior or the Secretary of Agriculture, depending on which department administers the land in question, under such rules and regulations as they may prescribe, to dispose of mineral materials of the type described above and vegetative materials, including, but not limited to, timber, grass and cactus. Such materials may be disposed of only upon payment of adequate compensation, to be determined by the Secretary, and where appraised at more than $1,000 must be advertised and sold to the highest bidder. Provisions are made in the act for federal, state and local governmental agencies to obtain such materials for noncommercial purposes without charge.

A difficult question is posed by the provision of the Multiple Surface Use Act which states that "common varieties" do not include deposits of such materials which are valuable because the deposit has some property giving it distinct and special value. Shall the prospector locate the deposit as a mining claim or proceed under the Materials Disposal Act, which may involve competitive bidding? If a mineral material occurs commonly, how is it determined that it "has distinct and special value?" It cannot be said as a matter of law that any given deposit of a mineral substance named in the Multiple Surface Use Act is not a common variety and therefore locatable. Rather, it depends on the facts of each particular case. In interpreting these facts, the Department of Interior has held that in order to show that a deposit is not a common variety, a mining claimant must establish both that the deposit has a unique property and that the unique property gives it a distinct and special value. In applying these criteria there must be a comparison of the deposit under consideration with other deposits of similar materials, and it must be shown that the deposit under consideration has some property which gives it value for purposes for which the other deposits are not suited or, if the material is to be used for the same purposes as similar materials of common occurrence, that it

geothermal steam is being produced or utilized in commercial quantities and the lands are not needed for other purposes. Land within a known geothermal resources area must be leased competitively, and noncompetitive leases may be issued for other lands. Nonexclusive exploration rights for geothermal resources may be acquired by application to the Bureau of Land Management. The lessee must pay a royalty of not less than 10 percent nor more than 15 percent of the amount or value of the steam, heat or energy which he sells or utilizes. Additionally, the lessee must pay a royalty of not more than 5 percent of the value of any by-product sold or utilized, and the Secretary may require the production of valuable by-products under certain circumstances. However, if the byproduct is one of the minerals subject to the mineral leasing laws, the royalty rates of those statutes apply.

Leases which are no longer capable of producing geothermal steam in commercial quantities may be extended up to 5 years for as long as by-products are produced in commercial quantities. If such by-products are minerals subject to the mineral leasing laws and the lease is primarily valuable for the production thereof, the lessee may convert his geothermal lease to a lease under the provisions of the appropriate leasing statutes. Similarly, claims for by-product minerals which would otherwise be subject to the general mining laws may be located within 90 days after the termination of the geothermal lease.

All prospecting and leasing activities pursuant to the various leasing laws are subject to detailed regulations governing all phases of exploration and mining activity. The regulations address such matters as the qualification of applicants, acreage limitations, the posting of compliance bonds, limitations on assignments and transfers and the use and management of surface resources. Additionally, the United States Geological Survey is responsible for technical matters pertaining to such activities. Information regarding the requirements for each of the various type of leases may be obtained from the Bureau of Land Management, Phoenix, Arizona.

V. MINERAL MATERIALS DISPOSAL

The Materials Disposal Act of 1947 (30 U.S.C. § 601), as amended, authorizes the disposal of mineral materials including, but not limited to, petrified wood and common varieties of sand, stone, gravel, pumice, pumicite, cinders and clay on federal lands. Deposits of these common

map, plat or sketch and by preparing and recording a map, plat or sketch, as described above. The relocation must, of course, comply with the federal filing requirements.

5. Amendment

A location may be amended at any time and the monuments changed to correspond with the amended location, but no change may be made which will interfere with the rights of others. The original discovery must be retained. The amended location notice must be posted on the ground and recorded. If the amendment changes the exterior boundaries of the claim, a new or amended map, plat or sketch must be also recorded. The amended location notice, together with any supplemental information required by the BLM Organic Act, must be filed with the Bureau of Land Management, Phoenix, Arizona. The notice should be entitled "Amended Location Notice" and should contain the statement:

> This is an amendment to the _____ lode (or placer) claim, located _____, 19____, and of record in Book _____, Page _____, in the Office of the Recorder of _____ County.

6. Mineral Rights of a Lode Locator

The locator of a valid lode claim on public domain of the United States which is open to mineral entry acquires all minerals which may be acquired by location, including those which may occur as placer-type deposits. The common varieties of certain substances which occur on the surface and which are obtainable only by purchase under the terms of the Materials Disposal Act are not acquired by a lode location, nor are mineral substances subject to the leasing laws. However, these substances may be acquired if a patent is obtained. The locator may acquire extralateral rights, as discussed below.

7. Extralateral or Apex Rights

By specific provision in the mining law, the locator of a lode claim is given the right to follow the vein on its downward course beyond the side lines of his mining claim. End lines must be parallel, and extralateral rights are confined within planes passed vertically downward through these end lines.

The nature of many ore bodies, such as disseminated copper porphyries, makes it very difficult to prove, even by expert testimony, whether or not the deposit is a vein or

lode within the meaning of the law so as to entitle the claim owner to extralateral rights. In many instances, owners of adjoining claims have entered into "sideline agreements" whereby their respective rights were confined by planes passed vertically downward through the side lines, thus eliminating the possibility of costly litigation in an attempt to establish extralateral rights.

In the event a question of extralateral rights arises, each case must be decided upon its own facts, and it is not possible in a booklet of this size to do more than make a very general statement of the law.

E. PLACER CLAIMS

1. Generally

The classic example of a placer is the occurrence of gold particles in gravel. Other minerals, both metallic and nonmetallic, may be located as placers. Some flat-lying deposits, though contained within the country rock, may be located as a placer, whereas the same mineral in a distinct vein or lode would be located as a lode claim.

Under certain circumstances a placer claim may be prospected for lodes and a lode claim located over the placer claim. Therefore, if the locator of a placer claim knows of the existence of lodes within his claim boundaries, he should locate the lodes as such for his own protection. If there are known lodes within the placer claim, the owner of the placer claim must declare such lodes when making application for a patent. Should the known lodes not be declared, they remain open for location as lode claims even after a patent issues for the placer claim. On the other hand, if there are no known lodes at the time of patent but their existence is subsequently disclosed, the placer patent conveys all valuable minerals, both lode and placer.

Some substances that were located formerly as placers are now specifically excluded from mining locations by the Multiple Surface Use Act of 1955. See page 53.

2. Size of Claim

A placer claim may not include more than 20 acres for each individual claimant, but there is no limit to the number of claims that an individual or association of individuals may locate.

A group of individuals may locate an "association" placer claim with a maximum of 160 acres. Thus, two indivi-

value of the coal, and the royalty is subject to readjustment at the end of the primary term and every 10 years thereafter.

Although amendments to the oil and gas statutes have also deleted the provisions for prospecting permits and preference right leases, lands not within a known oil and gas field may be leased non-competitively for a primary term of 10 years and so long thereafter as oil or gas is produced in paying quantities. Royalties are set at 12½ per cent of the amount or value of production. Competitive leases are issued for a term of 5 years, and so long thereafter as oil or gas in paying quantities is produced. A royalty of not less than 12½ percent is also payable. Annual rentals for both competitive and non-competitive leases are established by regulation and vary according to the type of lease and date of issuance.

The Geothermal Steam Act of 1970 (30 U.S.C. § 1001) established procedures for obtaining leases from the federal government for geothermal resources, and this act is the exclusive means by which the rights to such resources may be acquired on federal lands. The act authorizes the issuance of leases for the development and utilization of "geothermal steam and associated geothermal resources," which include:

1) All products of geothermal processes, embracing indigenous steam, hot water and hot brines;

2) Steam and other gases, hot water and hot brines resulting from water, gas or other fluids artifically introduced into geothermal formations;

3) Heat or other associated energy found in geothermal formations; and

4) Any by-product derived therefrom.

The Secretary of the Interior is authorized to issue leases on public, withdrawn or acquired lands administered by him or by the Forest Service, as well as on lands conveyed by the United States subject to a reservation of geothermal resources. The courts have held that where land was conveyed prior to the passage of this act subject to a reservation of minerals, the United States retains title to the geothermal resources as well.

Geothermal leases are issued for a primary term of 10 years and so long thereafter as geothermal steam is produced or utilized in commercial quantities, not to exceed an additional 40 years. The lessee may have a preferential right to a renewal of the lease for a second 40-year term if

Minerals which are subject to lease are removed from the operation of the general mining laws, and can be acquired only pursuant to the leasing statutes and regulations applicable to the mineral in question. With the exception of the vast Navajo and Hopi Reservations, which are subject to different statutes and regulations, there has been only sporadic activity in Arizona involving leasable minerals and thus the leasing laws will be only briefly summarized in this booklet.

The leasing laws, as originally enacted, provided for competitive leasing of lands known to be valuable for leasable minerals and the issuance of prospecting permits on other lands. The prospecting permit could then lead to the issuance of a preference right lease upon discovery of "commercial quantities" of coal or a "valuable deposit" of the other enumerated substances. While these laws have been substantially amended as they apply to coal and oil and gas, the statutes pertaining to leases of nonfuel minerals have remained essentially unchanged since their original enactment. Lands known to be valuable for such minerals must be leased competitively, while a prospecting permit may be issued if the land is not known to be valuable for such substances. In addition to the discovery of a "valuable deposit," a sodium and potassium permittee must also demonstrate that the lands are "chiefly valuable" therefor in order to obtain a lease. The conditions of the various types of leases, including the lease term, rental and royalty, vary significantly depending upon the substance involved and reference must be had to the particular statutes and regulations applicable to each mineral substance.

Under the Federal Coal Leasing Amendments Act of 1976, coal leases may now be issued only by competitive bidding. The act and recently issued regulations have established a complex system for the determination of which lands are to be offered for leasing. This is based in part on a determination of anticipated demand for coal and anticipated production from existing leases, as well as an analysis of the environmental impact which coal mining will have on lands proposed to be leased. Under recently issued regulations, the Bureau of Land Management will incorporate the criteria established by the Surface Mine Control and Reclamation Act of 1977 for designating lands unsuitable for surface coal operations into the procedures for preparation of land use plans mandated by the BLM Organic Act. Lands designated as unsuitable or otherwise failing to meet the leasing criteria, will not be offered for leasing. Coal leases are issued for a term of 20 years and so long thereafter as coal is produced annually in commercial quantities. However, any lease not producing in commercial quantities at the end of 10 years will be terminated. Royalties for newly issued leases are set at not less than 12½ percent of the

duals may locate an association placer claim of 40 acres, three individuals 60 acres, etc., up to a maximum of 160 acres by eight individuals in a single claim. However, all locators must be bona fide. If "dummy" locators are used, the validity of the claim may be subject to challenge.

3. Location

In order to meet the requirements of the federal and state laws, a placer claim on public domain of the United States within the State of Arizona must be located as follows:

1) Make a discovery of placer material. Discovery of mineral in place in a vein or lode will not validate a placer location. Only one discovery of mineral is required to support a placer location, whether it be of 20 acres by an individual, or of 160 acres or less by an association of persons. However, in the event of a contest or in patent proceedings, such a discovery may not conclusively establish the mineral character of all of the land within the claim.

2) Erect a monument or post and post a location notice signed by the locator which contains the same information as is required for a lode claim. See page 25.

The location should conform as nearly as practicable to the United States system of public land surveys and the rectangular subdivision of sections. This is not required where compliance would necessitate the placing of the claim lines upon previously located claims or where the claim is surrounded by prior locations. Strict conformity may not be practical, such as where a placer deposit occurs in the bed of a meandering stream. Where a placer location by one or two persons can be entirely included within a square 40-acre tract, by three or four persons within two square 40-acre tracts placed end to end, by five or six persons within three square 40-acre tracts, and by seven or eight persons within four square 40-acre tracts, such locations will be regarded as within the requirements where strict conformity is impractical.

A form for use in locating a placer claim will be found at the end of this booklet. As with lode claims, placer claims may be amended and relocated. See pages 28-29.

4. Recording

A copy of the location notice must be recorded with the recorder of the county in which the claim is situated,

within 90 days after the date of location. Additionally, a map, plat or sketch containing the same information as is required for lode claims must be recorded. However, if the placer claim has exterior limits conforming to legal subdivisions of the public survey, the map, plat or sketch may include the legal description of the claim instead of the requirements of numbered items 3 and 8 on page 27.

The filing requirements of the BLM Organic Act are equally applicable to placer claims and the location notice, and any required supplemental information, must be filed within 90 days of the date of location. When a mining claim is located on lands reserved for power sites, a copy of the location notice must be filed with the United States Bureau of Land Management, Phoenix, Arizona, within 60 days after date of location, and the placer claimant may not conduct mining operations for a period of 60 days after the date of filing such notice. See page 9.

5. Marking Boundaries and Performing Location Work

A placer claim is monumented in the same manner as a lode claim. See page 27. However, an apparent inconsistency in the law requires that the placer claim be located by six monuments, one at each corner and two at the "end center lines." Until this statutory requirement is eliminated, the claim should be monumented with all six monuments.

6. Mineral Rights of a Placer Locator

The locator of a valid placer claim on public domain of the United States acquires all placer minerals. Lodes, leasable minerals and the common varieties of certain substances which occur on the surface and which are obtainable only by purchase under the Materials Disposal Act are not acquired, although they may be acquired if a patent is obtained. The placer locator's mining rights extend within vertical planes passed downward through the claim boundaries, and there are no extralateral rights. The right to mine minerals from known veins within the placer claim, together with extralateral rights on such veins, may be acquired by the location of lode claims on the veins or lodes.

F. MILL SITE

Mill site is the name given to a tract of not more than 5 acres of nonmineral land used for mining, milling and other operations in connection with a mining claim. The

complex and requires an approved mineral survey, the filing of an application, the posting and publication of notice and other detailed requirements. The services of a qualified individual should be obtained for assistance with these matters.

The patent to a lode claim grants to the patentee the surface and all minerals within the claim. Surface rights may be restricted by reason of applicable provisions of various legislation, including the Stock-Raising Homestead Act, the Agricultural Homestead Acts, the Wilderness Act and other legislation. Leasable minerals will be reserved to the United States only if the lands were included in a permit or lease, or application therefor, or the land was known to be valuable for leasable minerals at the time of the issuance of the patent. The same applies to a placer patent, except that veins or lodes known to exist in a placer claim at the time the application for a patent is made must be declared. If this is not done, the veins or lodes known to exist at the time of the application remain open for location even after the issuance of the placer patent.

Additional information regarding patenting procedures and a pamphlet may be obtained from the United States Bureau of Land Management, Phoenix, Arizona.

IV. FEDERAL MINERAL LEASING LAWS

Leasable minerals on federal lands are acquired pursuant to the terms of several federal statutes. The initial leasing legislation was the Leasing Act of 1920, as amended (30 U.S.C. § 181), which established a system for leasing the following minerals: coal, phosphate, sodium, potassium, oil and gas, oil shale, native asphalt, solid and semisolid bitumen and bituminous rock (including oil-impregnated rock or sands from which oil is recoverable only by special treatment after the deposit is mined or quarried). In addition, there are several specialized statutes pertaining to the leasing of certain lands or substances. For example the leasing of sulphur is permitted only in the states of Louisiana and New Mexico. (30 U.S.C. § 271). The Mineral Leasing Act for Acquired Lands of 1947 (30 U.S.C. § 351) opened acquired lands for the acquisition of leasable minerals. In 1970, a leasing system was established for geothermal resources.

2. Public Domain Administered by the Bureau of Land Management

Two sets of rules governing the conduct of mineral exploration and development activities on public lands administered by the Bureau of Land Management have been proposed in recent years. Neither set of rules has been finally adopted, however. The proposed rules published in the December 6, 1976 Federal Register would apply to all lands administered by the Bureau of Land Management, including mineral rights reserved to the United States under the Stock-raising Homestead Act and Section 8 of the Taylor Grazing Act. The proposed rules published in the January 12, 1979, Federal Register would apply to potential and identified wilderness study areas, including all lands which have not been excluded from the wilderness inventory required by the BLM Organic Act.

The proposed rules in substance apply a management procedure similar to that presently used by the Forest Service, including the requirements for the filing of a plan of operations and procedures for minimizing the disturbance of surface resources and the reclamation of such resources.

As noted, neither set of proposed regulations has yet been published as final regulations. However, it is anticipated that these regulations will be finalized in the near future, and operators and claimants should anticipate their future applicability to lands managed by the Bureau of Land Management.

L. PATENTING MINING CLAIMS

Until a patent has been issued, a mining claim is an incomplete title which can be maintained only by the annual expenditure for work and improvements required by law. Should the owner of an unpatented mining claim desire to acquire the absolute title, and at the same time clear the record of possible adverse claims, he should make application for a patent from the United States government.

Of first importance is the fact that there must have been a discovery of mineral on each and every claim. Discovery on one claim, no matter how extensive or valuable, will not serve to validate other claims in the group which lack a discovery. Additionally, at least $500 worth of improvements must be made upon each claim, or if done on one or more claims for the benefit of a group of contiguous claims, the work must be of a value of not less than $500 per claim and of such a nature that it tends to benefit all of the claims in the group. The patenting process is rather

owner of a "quartz mill or reduction works" not owning a mine in connection with his mill or works may also acquire a mill site. (30 U.S.C. § 42)

While the federal laws are silent as to the manner of locating a mill site, the Arizona statutes provide that such sites are to be located in the same manner as lode claims. The map, plat or sketch recording requirement must also be met. Additionally, the mill site locator must comply with the federal filing requirements of the BLM Organic Act. See page 34. The mill site may only be located upon vacant and unappropriated public domain which is nonmineral in character. No annual assessment work is required, but the BLM Organic Act requires the recording and filing of a notice of intention to hold the mill site. See page 43.

A mill site may be patented subject to the same preliminary requirements as are applicable to lode and placer claims. A mill site is not valid and a patent will not issue unless actual and present use for permitted purposes is shown. A mill site may adjoin the boundaries of a mining claim, but if adjacent to the end line of a lode claim proof of nonmineral character may be more difficult, as a question may arises regarding whether the vein, on its strike, enters the mill site.

It may be that one mill site will not be sufficient for the intended uses and it may be necessary, and is permissible, to locate, use and patent more than one mill site. However, this does not imply a right to one mill site for each mining claim.

G. TUNNEL LOCATION

Although no provisions for a tunnel location are contained in the Arizona statutes, a tunnel location is expressly provided for by the federal laws. (30 U.S.C. § 27). It is not a mining claim, but rather gives the locator a right to drive a tunnel a maximum distance of 3,000 feet from the portal along the line of the tunnel site as marked on the surface. Any veins cut in driving the tunnel which do not appear on the surface, and which were not previously known to exist, may be located by the tunnel operator as lode claims. Subject to the limitations discussed below, the right to veins so discovered relates back to the time of location of the tunnel site.

Locations made on the line of such tunnel of veins or lodes which do not appear on the surface and made by other parties after the commencement of the tunnel and while the same is being prosecuted with reasonable diligence are not

valid. However, failure to prosecute work on the tunnel for a period of 6 months is considered an abandonment of the right to all undiscovered veins on the line of the tunnel.

The proprietors of a mining tunnel must post a notice of their tunnel location, giving the names of the parties claiming the tunnel right, the actual or proposed direction of the tunnel, the height and width thereof and the course and distance from the point of commencement to some permanent well-known object in the vicinity. The proprietors must also mark the boundary lines of the tunnel on the surface and the marked lines define and govern as to the boundaries within which prospecting for lodes not previously known to exist is prohibited while the work on the tunnel is being pursued.

A copy of the notice of tunnel location must be recorded in the county recorder's office, together with a sworn statement or declaration setting forth the facts in the case and stating the amount expended in prosecuting the tunnel work, the extent of the work performed and that the locator intends to prosecute work on the tunnel with reasonable diligence for the development of a vein or lode or for the discovery of mines, or both. A tunnel location must comply with the filing requirements of the BLM Organic Act.

H. FEDERAL FILING REQUIREMENT

The BLM Organic Act requires that the owner of an unpatented lode or placer mining claim or a mill or tunnel site located after October 21, 1976 must, within 90 days after the date of location, file in the proper Bureau of Land Management office a copy of the official record of the notice of location, including a description of the claim or site sufficient to locate the claimed lands on the ground. (43 U.S.C. § 1744). The act provides that the failure to so file is deemed conclusively to constitute an abandonment of the claim.

Department of Interior regulations expand upon the filing requirements set forth in the BLM Organic Act. For claims located in Arizona, all filings must be made at the State Office, Bureau of Land Management, 2400 Valley Bank Center, Phoenix, Arizona, 85073, and the notice of location and any required supplemental information must be received and date stamped by the Bureau on or before the due date. The following additional information must be provided if it is not contained in the copy of the location notice which is filed with the Bureau of Land Management:

3) A description of the type of operations and how they are to be conducted;

4) The type and standard of proposed and existing roads or access routes and the means of transportation to be used;

5) The time period in which the operations will take place;

6) The measures to be taken to minimize adverse environmental impacts on surface resources including air quality, water quality, disposal of solid wastes, scenic values, fisheries and wildlife habitats, and drainage; and

7) The steps to be taken to rehabilitate the surface resources at the end of the operations.

Once the plan is received, the District Ranger is required to evaluate the plan and notify the operator of his decision within 30 days. Under certain circumstances, an allowance may be made to permit a longer evaluation period. The District Ranger may notify the claimant that a plan is not required, that the plan is approved, that the plan requires certain changes or additions or that the plan cannot be approved until a final environmental impact statement has been prepared by the Forest Service and filed with the Council on Environmental Quality. The regulations also require that the operator, where practical, reclaim the surface disturbed in conducting operations and a bond may be required prior to the approval of the plan of operations to guarantee completion of the reclamation program.

Forms for use in filing the required notice of intent to operate and operating plan are available from the Forest Service and may be obtained from the appropriate District Ranger. At that time, it may be helpful to meet with the District Ranger to discuss proposed operations and environmental considerations which may bear upon approval of the operating plan, and any special conditions, including access, which may be involved.

The regulations discussed above are applicable to all national forest lands, including wilderness areas and wilderness study areas. These latter lands are subject to the additional requirement that operations must be conducted in accordance with the general purposes of maintaining the lands unimpaired for future use and enjoyment as wilderness and to preserve the wilderness character of the land. Authorization to utilize mechanized equipment in such areas will be granted only where the operator can establish that it is essential.

1) The use of vehicles on existing public roads used and maintained for national forest purposes;

2) Searching for and removal of small mineral samples or specimens;

3) Prospecting and sampling not involving significant surface resource disturbance and which will not involve the removal of more than a reasonable amount of mineral deposit for analysis and study;

4) Marking and monumenting mining claims;

5) Subsurface operations which will not cause significant surface resource disturbance; and

6) Operations which will not involve the use of mechanized earth moving equipment, such as bulldozers and backhoes, and will not involve the cutting of trees.

A notice of intent to operate must include sufficient information to identify the area involved, the nature of the proposed operations, the route of access to the area of operations and the method of transport.

If the District Ranger determines that such operations "will likely cause significant disturbance of surface resources," the operator will be required to submit a proposed plan of operations. This determination must be made within 15 days after receipt of the operator's notice. The regulations do not provide a definition of what constitutes a "significant surface resource disturbance," and each case must be evaluated on its own facts depending on the locale and the surface resources involved. If the operator believes a proposed plan of operations will be required, he can omit the filing of a notice of intention to operate and immediately file a proposed plan of operations.

If a plan of operations is required, it must include:

1) The name and mailing address of the operator and the claimants if they are not the operators;

2) A map or sketch identifying the proposed area and showing existing and proposed roads and access routes and the location and size of areas to be disturbed;

1) The name or number of the claim or site, or both, if the claim or site has both.

2) The name and current mailing address, if known, of the owner or owners of the claim or site.

3) The type of claim or site.

4) The date of location.

5) For all claims or sites located on surveyed or unsurveyed lands, a description must be furnished. This description must recite, to the extent possible, the section(s)and the approximate location of all or any part of the claim or site within a 160 acre quadrant of the section (quarter section) or sections, if more than one is involved. In addition there must be furnished the township, range, meridian and state obtained from an official survey plat or other U.S. government map showing either the surveyed or protracted U.S. government grid, whichever is applicable.

(6) For all claims or sites located on surveyed or unsurveyed land, either a topographic map published by the U.S. Geological Survey on which there must be depicted the location of the claim or site, or a narrative or sketch describing the claim or site with reference by appropriate tie to some topographic, hydrographic or man-made feature. Such map, narrative description or sketch must set forth the boundaries and position of the individual claim or site with such accuracy as will permit the authorized officer of the agency administering the lands or the mineral interests in such lands to identify and locate the claim on the ground. More than one claim or site may be shown on a single map or described in a single narrative or sketch if they are located in the same general area, so long as the individual claims or sites are clearly identified.

In place of the requirements described in items 5 and 6 above, an approved mineral survey may be filed. The regulations do not require that a professional surveyor be employed to prepare the map or the description of the claim. There is a one-time $5.00 filing fee for each claim filed with the Bureau of Land Management.

Although the current regulations provide that the copy of the location notice which is filed may be a copy of the instrument which is to be recorded in the county in which

the claims are situated, the BLM Organic Act requires the filing of a "copy of the official record," and therefore a copy of the recorded instrument should be filed. If this is not available, a copy of the instrument annotated with the recording information should be filed.

For mining claims located before October 21, 1976, the location notice, supplemented by the above information, must be filed on or before October 22, 1979. As discussed below, the BLM Organic Act also requires the filing of documents pertaining to the performance of annual labor. See page 40.

I. RECORDING MAP OF EXISTING CLAIMS

The Arizona laws contain a provision permitting the recording of a map, plat or sketch for any lode, placer or millsite claim which existed on September 3, 1978 (the effective date of this statute). The owner of such a claim may, on or before October 21, 1980, file a map, plat or sketch of the claim with the county recorder. The map must contain all of the information now required to be included in a map prepared at the time of location (see page 26), and must also recite the book and page of the recording of the location notice and of any amended notices. All claims for which the point of posting of the location notices is within one section of the public land survey may be included on one map. The recording of such a map within the prescribed time constitutes, after the date of recording, constructive notice to the public of the position of the claim and gives rise to a rebuttable presumption that the claim was monumented on the ground so that its boundaries can be readily traced.

J. MAINTENANCE OF TITLE

The following remarks apply to maintenance of title to unpatented lode and placer claims located on public domain of the United States within the State of Arizona.

1. Annual Work Requirement

The federal statutes require that on each mining claim, until patent has been issued, not less than $100 "worth of labor shall be performed or improvements made during each year." (30 U.S.C. § 28). Location work, as was formerly required, is entirely distinct from assessment work and may not be substituted for the latter. The assessment year commences at 12:00 noon on September 1, and the required

6. Contribution of Co-Owners to Cost of Assessment Work

If a co-owner of a mining claim fails to contribute his share of the cost of annual work the federal and state statutes provide a means by which the owner performing the work may make a demand upon his co-owner for his proportional contribution. Should the co-owner fail to do so, the owner paying for the work may "advertise out" his delinquent partner. The statutory provisions must be strictly followed to terminate the interest of a co-owner.

7. Relocation by Delinquent Owner

The law does not prohibit a delinquent owner from relocating his claim after the expiration of the assessment year if he has not performed the required annual work. The ground is open to relocation, but the original owner has no superior rights as against others who might desire to relocate the claim, and he cannot remain in possession and exclude others if the assessment work is unperformed. However, if the locator resumes his assessment work prior to an intervening right and continues diligently until the work is fully performed, the law will protect him as against a new locator. Miners usually frown upon the practice of relocating to avoid performance of annual labor, and such a practice may lead to conflicts and litigation far more costly than the expenditure for assessment work.

As a practical matter, it is to the advantage of the owner of a mining claim who has not performed the assessment work as required by law to perform such work rather than relocate the claim. A relocation of the ground necessitates that all the acts required by the statutes for the location of a mining claim be performed. Under present conditions, the costs of relocation will usually exceed the $100 expenditure required for assessment work.

K. OPERATING REGULATIONS ON FEDERAL LANDS

1. Forest Service Lands

The U.S. Forest Service has promulgated regulations governing mineral exploration and mining operations in national forests. (36 C.F.R. Part 252). The regulations require the claimant or operator to file with the appropriate District Ranger either a "notice of intent to operate" or "plan of operations" for all operations which might cause the disturbance of surface resources, unless the operations are limited to:

automatically forfeit the claim. It does, however, render it subject to loss by relocation. The courts have held that the failure to substantially meet the assessment work requirement may constitute evidence of abandonment of the claim in proceedings initiated by the government, and the current regulations provide that the "failure of a mining claimant to comply substantially with the requirement of an annual expenditure of $100 in labor or improvements upon a claim. . . will render the claim subject to cancellation." If the claim owner has failed to perform his work in any one year, he may resume his work at any time thereafter and the validity of his claim is maintained as of the date of original location, provided the rights of third parties have not intervened. His claim is lost if he fails to do his work and a valid claim is subsequently located by another person.

If a mining claim or group of claims is surrounded by lands over which a right-of-way for the performance of annual assessment work has been denied, or such other legal impediment exists so as to prevent the mining claimant from entering upon the surface of his claims, the performance of assessment work may be deferred by the Secretary of the Interior. The claimant must make application to the Secretary for such deferment and must file in the office of the recorder in the county where the location notices are recorded a notice to the public of the claimant's petition for deferment and the order or decision of the Secretary disposing of such petition. (30 U.S.C. § 28b). Compliance with the BLM Organic Act requires that the recorded petition be filed with the Bureau of Land Management, Phoenix, Arizona.

The annual labor requirement has been waived by Congress in certain years, usually on account of wars, and in other years the time for completion has been extended. At the time of publication of this booklet, no such moratorium is in effect.

Persons in the military service of the United States may be relieved of the requirements for performance of annual assessment work during their period of service and until 6 months after termination, by reason of special legislation known as the Soldiers' and Sailors' Civil Relief Act. (50 APP. U.S.C. § 565). To obtain the benefits of this act, before expiration of the assessment year during which a person enters military service he must file in the office of the recorder where the location notices are of record a notice that he has entered the military service and that he desires to hold his mining claims under the terms of the act.

work must be performed for each assessment year except for the assessment year in which the claim is located.

For a group of contiguous claims in common ownership or control, it may be possible to perform the work and improvements on fewer than all of the claims, for the benefit of each of the claims in the group. For example, in a five claim group, $500 worth of work and improvements may be made on only one claim if the work tends to develop or benefit all the claims in the group. The mere fact that the claims are contiguous is not enough to satisfy the requirements of the law. What will tend to develop or benefit each of the claims in the group is a question of fact in each particular instance. Work may be performed on adjoining or nearby property, such as the construction of a road. However, such work must meet the test of actually benefiting and developing the unpatented claim or claims for which it is performed.

A single placer claim, whether it be 20 acres located by one person or an association placer located by a group of persons, requires only $100 in annual expenditure.

There is no limitation on how long a mining claim may be held so long as assessment work is performed as required by law. Assessment work is not required after issuance of the "Final Certificate of Mineral Entry" in patent proceedings.

Although there is no annual assessment work requirement for a mill site or a tunnel location, a notice of intention to hold such locations must be filed with the BLM, as discussed on page 43.

2. Labor and Improvements Qualifying as Annual Work

The original federal statutes and the Arizona statutes supplementing the federal laws did not describe any specific type of labor or improvement that would meet the annual expenditure requirement of $100 per claim. However, the types of labor and improvements which would meet the requirements of the federal law have been discussed in a many court decisions. Annual work may be underground or on the surface. It may be done off the claim if clearly of benefit or value to the claim. An example would be a crosscut driven for the evident purpose of intersecting a vein at depth, and this is allowable even where the portal of the crosscut is not within the claim itself or the claim group. However, it must be kept in mind at all times that work which is performed off the claims is presumed not to benefit the claims. If questioned, the burden of proof is upon the party claiming the work to establish that this work did in fact tend to develop and benefit the claim or group of claims.

The question often arises as to whether monies spent or work performed do in fact benefit the claims. The mineral locator should be careful to eliminate all doubtful items and should make certain that sufficient sums have been expended on appropriate work so as to preclude any possible question regarding whether the statutory requirements have been met.

Courts have held expenditures for the following to meet the labor and improvements requirement of the statute: buildings, if upon the claim and actually used for mining purposes; employment of a watchman, provided his services are necessary for the preservation of the property (the Arizona supreme court has declared that the services of an individual making occasional trips to the property to see if everything was all right are not expenses which can be applied toward the annual assessment work requirement); machinery, tools and equipment essential to the development of the claim; timber used for mine purposes; roadways, both on and off the property, if for the benefit of the property; surface cuts and trenches, if measurable, and not merely sample trenches; and diamond, churn, and rotary drilling. This list is not complete. There are other items of labor and improvements which qualify as assessment work. Some expenses which may not be applied as annual work are attorneys' fees, travel expenses and construction or repairs to a mill.

A federal statute enacted in 1958 (30 U.S.C. § 28-1) specifically describes certain types of permissible work which had not traditionally been considered as applicable toward the annual requirement. That statute provides that the term labor:

> shall include, without being limited to, geological, geochemical and geophysical surveys conducted by qualified experts and verified by a detailed report filed in the county office in which the claim is located which sets forth fully (a) the location of the work performed in relation to the point of discovery and boundaries of the claim, (b) the nature, extent, and cost thereof, (c) the basic findings therefrom, and (d) the name, address, and professional background of the person or persons conducting the work.

The surveys which may be performed are defined by the federal law as follows:

> 1) the term 'geological surveys' means surveys on the ground for mineral deposits by the proper application of the principles and techniques of the science of geology as they relate to the search for and discovery of mineral deposits;

the year of location. Another example is the instance where the claim owner has petitioned for deferment of assessment work due to the fact that legal impediments exist which affect the right of the claim owner to enter upon the surface of his claim or to gain access to the boundaries of his claim. (30 U.S.C. § 28b.)

Although annual assessment work is not required upon a mill site or upon a tunnel location, a notice of intention to hold must be filed with the Bureau of Land Management on or before December 30 of each year following the year in which the location notice was filed with the Bureau of Land Management. The notice must be in the form of a letter signed by the owner or the owner's agent setting forth:

> 1) The Bureau of Land Management serial number of each site;
>
> 2) Any change in the mailing address of the owner; and
>
> 3) In the case of a mill site, a statement that a claim-related mill site will continue to be used for mining or milling purposes or that an independent mill site will continue to be used for the purposes of a quartz mill or reduction works and, in the case of a tunnel site, a statement that the owner will continue to prosecute work on the tunnel with reasonable diligence for the discovery or development of the vein or lode.

Unlike the notice of intention to hold a mining claim, it is unnecessary to record a copy of the notice of intention to hold a mill or tunnel site in the local county recorder's office.

4. Failure to Timely Complete Federal Filings of Annual Assessment Work

Failure to timely complete the Bureau of Land Management filing of an assessment affidavit or notice of intention to hold is, under the BLM Organic Act, "deemed conclusively to constitute an abandonment of the mining claim or mill or tunnel site." (43 U.S.C. § 1744).

5. Failure to Perform Annual Assessment Work

Although the failure to meet the federal filing requirements pertaining to assessment work will void a claim, the failure to perform labor and improvements of a value of $100 annually for each claim does not, in and of itself,

locating claims in any National Park System unit established or enlarged after September 28, 1976 must comply with the filing requirements of the BLM Organic Act, as outlined above.

Although the Arizona statutes provide that the recording of an affidavit of annual labor prior to December 30 constitutes prima facie evidence of the performance of assessment work, prior to enactment of the BLM Organic Act the recording of assessment affidavits was not mandatory. Now, however, it is essential that the claim owner record his affidavit or notice and that it be recorded sufficiently in advance of the December 30 deadline to ensure that a copy of the recorded instrument will be available and the Bureau of Land Management filing made on or before the federal deadline.

In instances where a claim owner files a notice of intention to hold a mining claim or group of mining claims, the notice must be in the form of:

1) An exact, legible reproduction or duplicate (except microfilm) of a letter signed by the claim owner or his agent setting forth (i) the Bureau of Land Management serial number assigned to each claim described in the notice, (ii) any change in the mailing address of the owner, (iii) a statement that the claim is held and claimed by the owner for the valuable mineral contained therein, (iv) a statement that the owner intends to continue development of the claim, and (v) the reason that the annual assessment work has not been performed or the reason that an assessment affidavit or a detailed report of geological, geochemical or geophysical survey has not been filed; or

2) A copy of the decision on file in the BLM office granting a temporary deferment of annual assessment work under the provisions of 30 U.S.C. § 28b, or a copy of a petition for such deferment, recorded in the local county recorder's office, but which has not as yet been acted upon by the Department of the Interior.

An example of a situation where a notice of intention to hold is appropriate includes the situation where assessment work requirements have not as yet become due. For example, if a claim is located after noon on September 1, the initial assessment work requirement need not be performed until prior to September 1 of the second calendar year following the location. However, the BLM Organic Act requires that the owner file either an affidavit or a notice of intention to hold prior to December 30 of the calendar year following

2) the term 'geochemical surveys' means surveys on the ground for mineral deposits by the proper application of the principles and techniques of the science of chemistry as they relate to the search for and discovery of mineral deposits; and

3) The term 'geophysical surveys' means surveys on the ground for mineral deposits through the employment of generally recognized equipment and methods for measuring physical differences between rock types or discontinuities in geological formations;

As noted above, the survey must be performed by a "qualified expert" and this is defined as an individual qualified by education or experience to conduct geological, geochemical or geophysical surveys. Surveys of this type may not be applied as labor for more than 2 consecutive years nor for more than a total of 5 years on any one mining claim, and each survey must be nonrepetitive of any previous survey performed on the claim.

Prior to the enactment of the statute permitting the performance of geological, geochemical and geophysical surveys, the mere taking of samples had been held by the courts not to meet the annual labor requirements on the theory that such sampling, while necessary to determine whether actual mining work should be conducted, does not in fact develop or tend to develop minerals. In light of the statutory provision relating to geological, geophysical and geochemical surveys, it is entirely possible that where such sampling and assaying are related to surveys of that nature the expenses should be allowed.

Annual work is not cumulative, and an amount in excess of 1 year's requirement may not be carried forward to succeeding years. However, it is sometimes more economical or convenient to perform 2 years' work as one continuous job. This may be done by performing the work at the close of the current assessment year and continuing past noon on September 1 into the next assessment year, doing the required amount for the second year after 12 o'clock noon on September 1, the commencement of the new assessment year. When work is being overlapped in this manner, a careful record of the time and date of the performance of such work should be maintained so that the work may be properly allocated to each assessment year.

Annual work may be performed by the locator or owner, by someone in privity with him, or by one who has an equitable interest in the property. A lessee may do the work, or a stockholder may do the work on claims held by his company. However, labor or improvements by a trespasser will not inure to the benefit of the claimant.

Although assessment work is not required upon a mill site or a tunnel location, failure to prosecute the work on a tunnel for 6 months constitutes an abandonment of the right to all underground veins on the line of the tunnel. Money spent on a tunnel location is considered as spent on the lodes which may be discovered and located, for the purpose of the annual assessment work requirement.

A faithful and full performance of the annual work, when the law requires it, is advisable, and sufficient work should be performed to eliminate all doubt as to the adequacy of the amount and type work claimed.

Owners of valid mining claims located on land withdrawn for national defense purposes are relieved of annual work thereon until the end of the assessment year during which the withdrawal is vacated by the President or by act of Congress.

3. Recording and Filing Annual Assessment Work or Notice of Intention to Hold

Prior to the enactment of the BLM Organic Act, federal law did not require the filing of any proof of annual assessment work. The Arizona statutes permit (but do not require) the filing of an affidavit of assessment work in the office of the recorder of the county in which the claims are located, and provide that such an affidavit, if recorded on or before December 30, constitutes prima facie evidence of the performance of annual labor and improvements. A form incorporating the Arizona statutory provision for assessment affidavits is included at the end of this booklet.

The BLM Organic Act now imposes specific requirements for filing proof of annual labor and improvements both with the county recorder and with the Bureau of Land Management. The owner of an unpatented mining claim located after October 21, 1976 must, on or before December 30 of the calendar year following the calendar year in which the claim was located and on or before December 30 of each calendar year thereafter, file an affidavit of assessment work or notice of intention to hold the claim in the recorder's office of the county in which the claim is located, and file with the Bureau of Land Management, Phoenix, Arizona a copy of the official record of the affidavit or notice. The copy of the affidavit or notice filed with the Bureau of Land Management must be an exact, legible reproduction or duplicate (except microfilm) of the notice or affidavit filed for record in the county recorder's office and must contain or be submitted with a description of the claim sufficient to locate the claimed lands on the ground. The current regulations provide that the Bureau of Land Management serial number assigned to the claim at the time

of the initial filing of the location notices will be deemed a sufficient description, and the serial number must appear on or must accompany the affidavit or notice of intent to hold. In instances where detailed reports concerning geological, geophysical and geochemical surveys are recorded pursuant to 30 U.S.C. § 28-1, a legible reproduction or duplicate of the recorded report must also be filed with the Bureau of Land Management. Each affidavit or notice of intention to hold must be accompanied by any change in the mailing address of the claim owner.

As discussed below, the federal filing described above must be made even if annual labor is not required to be performed on the claim. In such a situation, a notice of intention to hold the claim must be recorded and the recorded notice filed with the Bureau of Land Management prior to the applicable December 30 deadline.

For unpatented mining claims located prior to October 21, 1976, the BLM Organic Act requires that the owner of such a claim must, within the 3-year period following October 21, 1976, and on or before December 30 of each year thereafter, record and file with the Bureau of Land Management a copy of the recorded affidavit of performance of annual labor or notice of intention to hold. The current regulations require that the affidavit or notice be for the "preceding assessment year."

With respect to claims located prior to October 22, 1976, the BLM Organic Act provides that an affidavit or a notice must first be filed on or before October 22, 1979, and on or before December 30 of each year thereafter. The act and the regulations are not clear regarding the assessment years for which affidavits should initially be filed. The cautious owner will file, on or before October 22, 1979, the affidavit of assessment work or the notice of intention to hold for the assessment year preceding the date of the original filing of his location notices with the Bureau of Land Management and the affidavits or notices for each assessment year thereafter, up to and including the assessment year ending September 1, 1979. All affidavits or notices so filed should contain or be supplemented with the additional information described above.

The owner of an unpatented mining claim, mill site or tunnel site located within any unit of the National Park System established before September 28, 1976, must file, on or before October 22, 1979 and on or before December 30 of each calendar year thereafter, either an affidavit of assessment work or a notice of intention to hold with the Bureau of Land Management, Phoenix, Arizona. The regulations presently require the Bureau of Land Management to provide a copy of each such filing to the Superintendent of the appropriate National Park System unit. Claimants