Colorado Coalition of Land Trusts

Mineral Development and Land Conservation

A Handbook for Conservation Professionals

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Great Outdoors Colorado funded this project, but it is not GOCO's product. However, GOCO urges Colorado's conservation community to seriously consider the recommendations contained in this document.

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The CCLT welcomes additional comments from conservation organization practitioners and others who use this book. It is our hope to be able to improve its usefulness with updates in the future.

Introduction

So why does the Colorado Coalition of Land Trusts care about mineral and energy development?

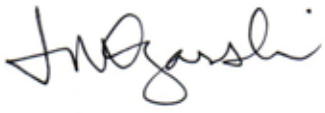
The answer is that as both stewards of the land and as Coloradoans who care about the economic growth of our state, we cannot afford not to.

Colorado's energy sector is strong and growing, and is a critical base of our economy. At the same time, land conservation organizations are working hard to double the 2 million acres of Colorado's wildlife habitat, working farms and ranches, and scenic vistas that already have been conserved. Voluntary conservation easements are, and will continue to be, a critical tool for conserving these irreplaceable landscapes where we live, work, and play.

The best way to reduce conflicts between land conservation and mineral development is to make sure everyone operates, from the beginning, with the best possible information. The impressive team of experts who contributed to this handbook did exactly that—they compiled a state-of-the art guide that will be a well-used resource for every land conservation professional in Colorado and beyond.

With input from oil and gas and conservation attorneys, scientists, industry professionals and other conservation professionals, *Mineral Development and Land Conservation: A Handbook for Conservation Professionals* is a tool that will help conservation professionals evaluate new projects and inform landowners of the potential impacts of mineral development on land they are considering or have already put under conservation easement. Although the Handbook is primarily designed to address conservation easements, owners of lands in fee title will also find compelling sections on split estate issues, impacts, and surface use agreements.

The Colorado Coalition of Land Trusts serves the community of land trusts and government open space programs and the organizations and individuals who work alongside them to conserve Colorado's natural resources, wildlife habitat, working farms and ranches, scenic landscapes, and outdoor nature-based recreational opportunities. We are pleased to present this Handbook as another piece in a series of technical assistance that improves the quality and permanence of land conservation.



Jill N. Ozarski
Executive Director

Chapter One

Introduction to Mineral Rights and Conservation Easements

In fewer than 3 years in the mid-1800s, 100,000 prospectors flooded into Colorado to search for gold. Mineral development continued, on some scale, for the 150 years since, and modern-day explorers don't just look for gold. The state holds deposits of silver, oil, gas and a host of other metals and minerals integral to manufacturing and energy production.

Today, private landowners, government and nonprofit organizations guard Colorado's wildlife and scenic areas, often the same places that contain valuable fuel and ores. Whether conservation of land can co-exist with mineral development is a hotly debated and critical issue.

To promote land conservation, Colorado's legislature created significant tax incentives for private landowners who donate conservation easements to permanently protect land. Generally, a conservation easement is a binding legal agreement between a landowner and a land trust or government agency. It permanently limits land use to protect natural resources. The limitations imposed by an easement vary. One designed to protect crucial wildlife habitat may prohibit all development. An easement to protect agricultural production could allow farming, but ban subdivisions.

The benefits are tied to and supplement the incentives adopted decades ago by the U.S. Congress. Federal and state tax incentives are available only to those who donate conservation easements and meet specific requirements, including restrictions on mineral development. Section 170(h) of the Internal Revenue Code and Section 1.170A-14 of the U.S. Treasury Regulations provide specific requirements for conservation easement donations.[1] In general, a federal tax credit requires preservation for education or public use; fish, wildlife or plant habitats or ecosystems; open space, including farm- and forestland; and historically important lands or structures. (See Appendices 1 and 2 for specific definitions.)

If more than a remote probability exists that surface mining could occur, the donation of a conservation easement will not qualify for tax incentives. Surface mining methods are typically used to strip mine coal, and remove hard rock minerals, sand and gravel. Other mining methods, such as drilling for oil and gas and underground mining for coal and uranium, are not considered surface mining. Whether such other mining methods are permitted and to what extent must be determined on a case-by-case basis, analyzing a number of site-specific factors.

To make the issue more complex, the right to mine belongs to the minerals owner(s), who may not own the surface. In Colorado, federal or state government, or private third parties often own minerals, not the landowner. In the conservation context, a divided ownership can create conflict between a surface owner who wants to conserve his land and a mineral owner who wants to develop the minerals beneath it.

1 Copies of the Code and Regulations are included as Appendix 1 and 2, respectively.

Chapter Two

Tax Laws Related to Conservation Easements and Mineral Development

THE FOLLOWING TAX LAW EXPLANATION DETAILS THE REQUIREMENTS TO DONATE A CONSERVATION EASEMENT AND QUALIFY FOR FEDERAL AND STATE TAX INCENTIVES. The principles are helpful for conservation organizations when they consider an acquisition and to ensure the conservation values' protection in perpetuity.

2.1 Landowner Owns Surface and Minerals

Under the Code and Regulations, a conservation easement must prohibit mineral development by surface mining methods or it will not qualify for federal tax benefits.[2] When the landowner owns all mineral rights associated with the land, then he/she has complete control over actual and potential development. The landowner can grant a conservation easement containing language that prohibits or restricts mineral development.

After a conservation easement is in place, the landowner and any subsequent owner or lessee of the land who wishes to develop minerals or to allow any third party to develop minerals, must abide by its terms. If the conservation easement prohibits mineral development entirely, then any attempt to explore for or extract minerals will violate the easement. The grantee of the conservation easement has the right to enforce it by taking action to prevent mineral development or requiring restoration of any land damaged by mining.

2.2 Landowner Owns Surface, Not Minerals

If the surface of the land and the mineral rights are not owned by the same party, it is known as a split estate. When a split estate exists, the landowner retains the right to restrict the surface estate through a conservation easement, but he/she does not have the right to restrict the mineral estate. The conservation easement is not legally enforceable against the owner of the mineral estate. (See Chapter 4 for discussions about different types of split estates.)

As a general rule, the Code provides that in order to qualify for tax benefits, the landowner must own both the surface estate and the mineral estate.[3] Because split estates are common in Colorado, this general rule would severely limit landowners' efforts to preserve land through conservation

2 If a landowner retains a qualified mineral interest and if at any time there may be extraction or removal of minerals by any surface mining method, the conservation easement fails to protect the conservation purposes in perpetuity. 26 U.S.C. § 170(h)(5)(B)(i); Treas. Reg. § 1.170A-14(g)(4)(i). However, the Regulations permit methods of mineral development that are "not irremediably destructive of significant conservation interests" and have a "limited, localized impact" on the land. Treas. Reg. § 1.170A-14(g)(4)(i).

3 *See* 26 U.S.C. § 170(h)(5)(B); Treas. Reg. § 1.170A-14(g)(4)(ii)(B).

easements. Fortunately, the Code and the Regulations grant an exception.[4] When the landowner does not own the mineral estate, the conservation easement can still qualify for tax benefits "if the probability of surface mining occurring on such property is so remote as to be negligible." [5]

On a case-by-case basis, a geologist makes a factual determination whether the probability of surface mining is remote.[6] The analysis considers geological and geophysical factors, as well as economic data, to evaluate the commercial feasibility of surface mining when the conservation easement donation is made. [7] In practice, a landowner or conservation organization obtains a written report from a geologist who reviews the ownership of the mineral estate, inventories mineral resources present on or under the land and determines whether any mineral resources present could be economically extracted by a surface mining method. If the geologist concludes that there are no mineral resources present or that mineral resources are present but cannot be extracted through a commercially feasible method, the geologist can usually issue an opinion that the probability of surface mining is so remote as to be negligible. (See Chapter 8 for in depth mineral assessment reports.)

2.3 Limited and Localized Mining Activities

Although the Code and the Regulations require conservation easements to prohibit surface mining, the Regulations allow some mineral development under certain circumstances. The Regulations permit methods "not irremediably destructive of significant conservation interests" and that have a "limited, localized impact" on the land.[8] According to the Regulations, a landowner or mineral developer can meet these standards by concealing production facilities or making them compatible with existing topography, and restoring surface alteration to its original state after extraction is completed.[9] A conservation organization should also require development to be consistent with preservation of the conservation values of the land.

2.3.1 Surface Mining Activities

Based on guidance in the Regulations, many Colorado conservation easements allow landowners to extract soil, sand, gravel or rock. Typically, surface mining—on a limited basis in conjunction with borrow pits—is used to extract the materials. The borrow pits are a common tool, especially for agricultural conservation easements. However, a conservation easement will not be deductible if at any time any method of mining is permitted that is inconsistent with the conservation easement purposes.[10] The United States Court of Federal Claims in Maine disqualified a charitable income tax deduction for an easement because the landowner reserved the right to extract gravel by surface mining for road construction on the property.[11] Although the Maine case may not control the review of a Colorado conservation easement, organizations should require that easements limit the landowner's rights to extract

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4 26 U.S.C. § 170(h)(5)(B)(ii); Treas. Reg. § 1.170A-14(g)(4)(ii)(A). Prior requirement that mineral interests be separated from the surface prior to June 13, 1976 was deleted from 26 U.S.C. § 170(h) in the Taxpayer Relief Act of 1997. References to June 13, 1976 in Treas. Reg. § 1.170A-14(g)(4)(ii)(A)(1) are no longer relevant.

5 26 U.S.C. § 170(h)(5)(B)(ii); *see also* Treas. Reg. § 1.170A-14(g)(4)(ii)(A)(3); I.R.S. Priv. Ltr. Rul. 86-30-056 (Apr. 30, 1986); I.R.S. Priv. Ltr. Rul. 87-21-017(Feb. 17, 1987). This exception is only available where the surface and mineral owners are not deemed "related persons" under § 267(b) or § 707(b); generally, family members and certain corporate entities are deemed "related persons". Treas. Reg. § 1.170A-14(g)(4)(ii)(2).

6 Treas. Reg. § 1.170A-14(g)(4)(ii)(A).

7 *Id.*

8 Treas. Reg. § 1.170A-14(g)(4)(i).

9 *Id.*

10 *Id.*

11 *Great Northern Nekoosa Corporation and Subsidiaries v. United States,* 38 Fed.Cl. 645 (1997). In *Nekoosa,* the landowner conceded that gravel is a mineral under Maine law but argued that it is not a "subsurface" mineral, and accordingly is not a "qualified mineral interest" under Section 170(h)(5) and (6). The court disagreed, reasoning that 170(h)(5) and (6) are part of a statutory scheme to protect land; and that it would not "adopt a definition of 'subsurface' that would allow disruption of the landscape" and thus "negate the legislative intent of the statute and … undermin[e] the policy which the charitable deduction for conservation purposes was sought to promote." *Id.* at 657, 658

minerals so that the use is consistent with the protection of the land's conservation interests; limited in scope, size, and purpose; and conducted in a manner consistent with the Code and the Regulations.

2.3.2 Oil and Gas Development

What about oil and gas development? Do the Code and the Regulations permit some level of oil and gas development to occur without affecting the eligibility of a conservation easement for tax benefits? Mineral development, such as drilling to access subsurface minerals, might be compatible with the specific conservation values protected by the easement and permitted by the Code and Regulations if they do not irremediably destroy the surface.

The Regulations and other guidance issued by the Internal Revenue Service distinguish between situations where the mineral estate is wholly owned by the owner of the surface estate and when some or all of it is owned by a third party. If the surface owner also owns the mineral estate, there is no split estate. The conservation organization can draft the conservation easement to include sufficient controls and restrictions to ensure the protection of the conservation values. However, with a split estate, the surface owner does not control the mineral estate and the conservation easement does not bind any third-party mineral estate owner.

The Regulations give two examples of mineral development that a conservation easement may allow without affecting its deductibility.

1. In the first example, the landowner owns both the surface estate and the mineral estate on land containing southern bottomland hardwoods, considered a critical ecosystem in the South.[12] The landowner donates the entire interest in his land but reserves the right to drill for oil and gas. The landowner covenants and can ensure the drilling will have no more than a temporary, localized impact that will not interfere with the overall conservation purpose of the donation.[13] The Regulations determine that this donation would qualify for a deduction because the landowner has restricted mineral development to protect the conservation purpose of the donation. [14]
2. In the second example, the facts are the same except that the landowner conveys the mineral estate to a third party subject to a recorded document that prohibits removal of any minerals by any surface mining method and then donates a qualified real property interest, which can include a conservation easement. Because the mineral estate is subject to recorded prohibitions against surface mining and the removal of any minerals in a manner that would harm the bottomland hardwood ecosystem,[15] the donation of any conservation easement would also qualify for a deduction.[16]

In the second example, the conveyance of the mineral estate included the same recorded prohibitions on the manner of extraction that the donated interest included. Because the landowner restricted the mineral conveyance, the landowner was able to control the mineral development despite conveying the mineral estate to a third party. However, any conservation easement donated in this manner should include the right for the conservation organization to enforce the recorded prohibition and prohibit termination.

Other IRS-issued guidance suggests oil and gas development is permissible under certain circumstances. One example is a revenue ruling that determined the donation of a conservation easement was proper where the landowner reserved the right to access subsurface minerals by slant drilling

12 Treas. Reg. § 1.170A-14(g)(4)(iii), example 1.
13 *Id.*
14 *Id.*
15 *Id.*
16 *Id.*

from an adjacent property so that the surface would not be disturbed.[17] Subsequently, the IRS issued a private letter ruling[18] where the conservation easement reserved a right for the landowner to explore for or extract subsurface minerals located more than 500 feet below the surface.[19] The IRS determined the conservation easement was deductible because the mineral development was required to be accomplished in a manner that resulted in only a limited and localized impact and no permanent destruction of any significant conservation purpose.[20] Both the revenue ruling and the private letter ruling involved fact situations where there was not a split estate.

In a private letter ruling involving a third party-owned mineral estate and operating gas wells on the land encumbered by the conservation easement, the IRS determined that the conservation easement was deductible because the "wells and the gas lines in connection with them do not derogate the scenic or conservation nature of the proposed easement in gross."[21] The IRS seemed persuaded by the fact that the gas wells could co-exist with the conservation purposes the easement sought to protect. This private letter ruling is helpful in analyzing a situation where the oil and gas infrastructure already exists.

17 Rev. Rul. 75-373, 1975-2 C.B. 77.

18 Private letter rulings only benefit those parties for which the ruling was specifically made, and practitioners may not cite private letter rulings as precedent for any purpose. 26 U.S.C. § 6110(k)(3).

19 Priv. Ltr. Rul. 82-47-024 (Aug. 18, 1982).

20 *Id.*

21 *Id.*

Chapter Three

Analysis of Potential Oil and Gas Development

WHEN THE LAND HAS ACTUAL OR POTENTIAL FOR OIL AND GAS DEVELOPMENT, HOW DO LANDOWNERS AND CONSERVATION PROFESSIONALS DETERMINE WHETHER A CONSERVATION EASEMENT DONATION WILL QUALIFY FOR TAX BENEFITS AND MEET THE REQUIREMENTS OF THE CONSERVATION ORGANIZATION?

3.1 Landowner Owns the Mineral Rights

When the landowner owns the mineral rights but has not leased them to a third party, and there is no existing oil and gas development on the land, the landowner can donate a conservation easement that meets the requirements of the Code, Regulations and the requirements of the conservation organization by prohibiting all mineral development in the conservation easement. When the landowner completely prohibits mineral development, it does not matter whether oil and gas reserves are present, nor whether development of the oil and gas reserves is financially and physically feasible. The landowner can simply prohibit all mineral development. (See Appendix 5 for sample conservation easement provisions.)

What if the landowner wants to permit oil and gas development but restrict development just enough so that the conservation easement donation will still qualify for tax benefits? The conservation organization must make inquiries and determinations about whether:

- Permitting oil and gas development fits the mission of the conservation organization;
- Oil and gas development will have an impact on the conservation values and the conservation purposes of the conservation easement;
- The impacts can be mitigated in a manner that adequately protects or enhances the conservation values; and
- The conservation values can be protected.

(See Chapter 9 for some mineral development impacts on conservation values.)

Drafting provisions to permit oil and gas development in a conservation easement can range from simple to extremely complex. Simple drafting permits oil and gas development but requires the prior approval of the conservation organization, which it could grant or deny at the time of the request. This option requires no discussion about the location or the extent of the mineral development and delays the negotiation until the landowner is ready to pursue mineral development. The advantage to this approach is that tough decisions are delayed until actual mineral development is proposed on the land. This delay is also a disadvantage because each party may have a different idea of the permissible extent of the mineral development. (See Appendix 5 for sample conservation easement provisions.)

A more complex provision specifies areas where mineral development can occur and precisely how the grantor must undertake the development, including mitigation measures and best management practices. The advantage to this approach is that both parties can reach an understanding prior to the conservation easement donation. A disadvantage is the amount of time and effort required to create the specificity.

3.2 Landowner Does Not Own Mineral Rights

When the landowner does not own the mineral rights but the mineral assessment report shows a potential for oil and gas development, how do a landowner and a conservation organization determine whether an easement could adequately protect conservation values? The conservation organization needs to make inquiries and determinations about:

- Whether permitting oil and gas development fits the mission of the conservation organization;
- Whether the oil and gas development will have an impact on the conservation values and the conservation purposes of the conservation easement;
- If the impacts can be mitigated in a manner that would adequately protect or enhance the conservation values;
- Who owns the mineral rights;
- Whether the mineral rights have been leased to third parties.
- The location and extent of potential oil and gas development;
- The intensity of mineral development permitted by existing laws and regulations; and
- Whether the owner or developer of the mineral estate would consider working with the landowner to accommodate the conservation easement and enter into a surface use agreement or would agree to a subordination of the mineral owner's rights to the conservation easement. (See Chapter 6 for the process to investigate mineral rights ownership, Chapter 9 for the impacts of mineral development and Chapter 11 for options to negotiate surface use agreements.)

If the mineral owner or developer enters into a surface use agreement prior to the donation of the conservation easement, the conservation organization must review the scope and extent of the potential mineral development and determine if the surface use agreement will adequately protect the conservation values designated in the easement. If the surface use agreement does protect the conservation values and complies with the Regulations, a conservation easement donation can still qualify for tax benefits. (See Chapter 11 for the provisions of surface use agreements.)

If the conservation organization and the landowner determine that a donation is feasible, the conservation easement should reflect the ownership status of the mineral rights; the existence of any surface use agreement and parameters for its amendment; and a statement that confirms the adequate protection of the conservation values. (See Appendix 5 for sample conservation easement provisions.)

3.3 Existing Oil and Gas Infrastructure

If oil and gas infrastructure already exists, then in addition to the inquiries and determinations, the conservation organization must evaluate the infrastructure's impacts on the proposed conservation values. If the parties agree a conservation easement could adequately protect the conservation values and meet the requirements of the Regulations, the conservation easement must reflect the infrastructure's existence; the ownership status of the mineral rights; the existence of any surface use agreement and parameters for its amendment; and a statement that confirms the adequate protection of the conservation values. (See Appendix 5 for sample conservation easement provisions.)

Chapter Four
Split Estates

4.1 Definition

Every state permits separation of surface and mineral rights.[22] This Handbook uses the generic term split estate to apply to any and all circumstances where rights to the surface and the minerals are owned separately. A split estate exists even when a portion of the mineral estate is owned by someone besides the surface owner. Just as there are many ways to own rights in a parcel's surface—e.g. in fee, by lease, a life of the wells, or an undivided fractional share—mineral estate ownership also may have many different forms.[23]

When a split estate exists, private parties, the federal government, an individual or a combination of these may own the minerals. Another common example of split estates occurs in areas where railroads were built. As an incentive to encourage railroad construction, Congress granted both surface and mineral ownership to various railroad companies, often in alternate checkerboard sections on each side of the right of way. The railroads sold lands to settlers but generally reserved some or all of the minerals for themselves.

A split estate also occurs when a surface owner grants an oil, gas or mineral lease. As long as the lease remains in effect, the lessee controls the mineral rights referenced in the lease. The surface owner cannot later restrict or reduce the rights of the lessee.

4.2 Federal Minerals

As a result of mineral reservations in early homesteading acts in the 1800- and 1900s, the U.S. government is the most common mineral estate owner, particularly in the western United States.[24] Today, the federal government manages almost 300 million acres of subsurface mineral resources, with approximately 56 million of the total involving privately owned surfaces.[25] Thus, government-created split estates are a common feature in land transactions, particularly those involving undeveloped land in rural areas where conservation easements may be particularly desirable or important.

On private land/federal minerals parcels, the federal statute that originally created the split estate determines many of the respective rights and obligations of the surface owner and mineral holder.

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22 Phillip Wm. Lear, *Split Estates and Severed Minerals: Rights of Access and Surface Use after the Divorce (And Other Leasehold Access-Related Problems),* 50 Rocky Mt. Min. L. Inst. 10-1 (2004).

23 Numerous articles discuss many of these different forms. *See, e.g.,* Andrew C. Mergen, *Surface Tension: The Problem of Federal/Private Split Estate Lands,* 33 Land & Water L. Rev. 419 (1998); Rick D. Davis, Jr., *Conflicts Between Surface Owners and Mineral Lessees,* Landman, Nov./Dec. 2003, at 15; Charles L. Kaiser & Charles A. Breer, *Legal Issues Presented by Checkerboard, Inholding, and Split Estate Lands,* Mineral Development & Land Use 9-1 (Rocky Mt. Min. L. Fdn. 1995); Owen M. Lopez, *Upstairs/Downstairs: Conflicts between Surface and Mineral Owners,* 26 Rocky Mt. Min. L. Inst. 995 (1980).

24 BLM Facts, www.blm.gov/nhp/facts. Last visited May 30, 2008.

25 *Id.*

Many statutes contained provisions that defined the mineral holder's rights to use the surface which were very broad, but not unlimited. For example, some require compensation for all damages to the surface and some limit the mineral holder's right to use the surface to only that portion of the surface reasonably needed to support mining operations. (See Appendix 4 for a list of some of the statutes and the minerals they reserved.)

Leases by the U.S. government to companies are subject to additional regulations promulgated by the Bureau of Land Management. The regulations cannot diminish the mineral holders' rights, but they can, and do, create additional rights and protections for the surface owner's benefit. A particularly important example of this is the BLM's Onshore Oil and Gas Order No. 1.[26]

The order is incorporated into the terms of all federal oil and gas leases, and requires oil and gas operators to negotiate issues such as access with surface owners before the operators can obtain BLM authorization. Although this negotiation right does not permit a surface owner to prohibit the proposed mineral activity, the owner can often require that access roads, well pads and other surface facilities be located in places deemed most appropriate by the surface owner. The ability to influence these kinds of decisions can make an enormous difference in the ability of a surface owner or donee to protect the purposes underlying a conservation easement.

4.3 State Minerals

State governments granted land, reserving associated mineral rights. Examples of this are particularly common in the Midwest and West, where statehood acts granted states ownership of school sections in each township. The states also received the rights to acquire in lieu lands from the federal government to make up for situations where it had already granted school sections through patents. Sometimes the state selected and acquired lands already subject to split estates or disposed of lands in a manner that created split estates. Because the state land grants typically involve split estates, landowners and conservation organizations must analyze the language of the grant or grants that created them and investigate any state land board laws, leases or regulations that may further limit or define the state's surface rights or mineral lessees.

4.4 Private Minerals

A private landowner can create a split estate by selling or leasing some or all of the mineral rights and reserving the surface, or by selling the surface and reserving all or a portion of the mineral interests. In either situation, the original grant language of each transaction determines the rights and obligations of future owners of each estate. Often this language is vague and ill-defined, and as a result, some courts have interpreted the language using the "implied rights" doctrine. (See Section 5.1.)

4.5 Types of Mineral Grants and Reservations

Mineral grants and reservations come in many forms. A grant can convey a royalty interest, or right to receive payment from mineral development profits. A mere royalty holder generally does not have the right to enter the surface of the property and develop the interest, but instead must piggyback on the rights of someone who does have such rights. Other forms of nonexecutive rights include overriding royalty interests; production payments; and mineral interests expressly designated as nonparticipating or otherwise allocated the right to enter into leases with other interest owners. These rights do not include any rights to develop the minerals.

Sometimes mineral interests are divided into multiple ownerships. One or more parties may own a working interest, which includes the right to develop and extract minerals, while others may be passive royalty holders. (See Chapter 11 for the use of surface use agreements to permit mineral

26 48 Fed. Reg. 48,916 (Oct. 21, 1983) (final rule); 48 Fed. Reg. 56,226 (Dec. 20, 1983) (correction to final rule).

development while protecting conservation easement values.)

Mineral grants often are restricted to a particular kind of mineral. For example, a reservation of gold and silver does not reserve rights in oil and gas. Controversial issues may arise in the scope of the right. For example, does a reservation of coal also reserve coalbed methane? Generally, rights to coalbed methane extraction are deemed to be owned by the oil and gas interest owner, not the coal estate owner—but each state's laws and precedents must be consulted to confirm whether this general rule applies.[27] Landowners and conservation organizations must carefully review the granting instrument and statutes interpreting these grants to determine exactly what is owned.

4.6 Extralateral Subsurface Mining Vein and Lode Issues

Another common reservation is the right to the vein and lode. In a deed the language usually states "and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law." This means the owner of a patented or unpatented mining claim may follow a vein or lode into the subsurface beneath adjacent property.

Federal statutes limit the size of a vein or lode intrusion to a maximum of 1,500 feet along the vein or lode's length. The width is limited to a maximum of 600 feet, 300 feet on either side of the vein or lode's centerline.[28]

A claimholder's right to pursue the mineral exploration and development of a vein or lode are called extralateral rights and apply only to veins and lodes that apex or top out on the earth's surface within the boundaries of the claim.[29] Even though the extension of the rights is limited, the consequences to the surface owner still can be significant. One of the more significant consequences could be subsidence.

Mining has become profitable, increasing the importance of assessing the likely development of a vein or lode and any extralateral rights. As part of this assessment, the proximity of patented mining claims to land under consideration for a conservation easement should be examined. Second, a the geologist should determine whether the federal government owns tracts of land in proximity because unpatented claims can be staked out on federal lands where the U.S. government owns mineral rights.

The common practice for many conservation organizations is not to obtain a mineral assessment report when the title policy indicates an exception for vein and lode materials but not other mineral severances. However, where there are known deposits in the area, or a vein or lode is being pursued that could affect the property surface, a conservation organization may opt to take extra steps to ensure remoteness of surface disturbance, and benefit and enhance its ability to protect the land.

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27 *Compare* Newman v. Rag Wyo. Land Co., 53 P.3d 540 (Wyo. 2002) (deed from landowner to coal company did not include coalbed methane ownership) *with* Caballo Coal v. Fid. Exploration & Prod. Co., 84 P.3d 311 (Wyo. 2004) (grant of "all minerals contained in or associated with" coal included grant of coalbed methane).

28 30 U.S.C.A. § 23 (1872).

29 Mining Law of 1872 30 U.S.C. § 26 (1872).

Chapter Five

Legal Rights Of Estate Owners

5.1 Implied Easements

For every split estate created, the applicable statutes, grants, reservations or leases determine the rights of the parties, as long as the language used to define rights is explicit and unambiguous. Unfortunately, the language in these documents is often unclear and may not provide any of the detail necessary for a complete understanding of each party's rights. Over the centuries, courts have decided cases that create a law of implied rights to fill in these gaps that varies from case to case.

In general, courts have used two different but related methods to solve these problems. The first focuses on determining the original parties' intent where none was expressed. The inquiry is based upon what reasonable and ordinary people would likely have intended in the particular circumstances. Courts often recognize that a mineral owner has an implied right to "reasonable use" of the surface even if it was not specifically mentioned in the grant or reservation of minerals.[30] This conclusion is based on the logical premise that it is unlikely that anyone would have bought or reserved mineral rights unless he or she also bought or reserved the right to explore for and extract any that are found. Thus, courts have generally implied rights of ingress, egress, exploration and surface usage as reasonably necessary to the successful exploitation of the mineral interest.[31] This generally includes entering the land, constructing roads, erecting mining or drilling equipment, and removing the minerals.[32]

Courts have also filled in gaps in deed language by examining public policy. Historically, the wealth that could be generated from mining far outweighed what could be generated from use of the surface, and courts were hesitant to imply any rights or powers in the surface owner that might be used to prevent or even discourage potential mineral development.[33] Today, however, the public attitude is much more sympathetic to the surface owner.

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30 *See, e.g., Gerrity Oil & Gas Corp. v. Magness,* 946 P.2d 913, 926 (Colo. 1997); *Reynolds v. Amerada Corp.,* 778 So. 2d 759, 762 (Miss. 2000); *Amoco Prod. Co. v. Carter Farms Co.,* 703 P.2d 894, 896 (N.M. 1985). See also, Agricultural Land Act of 1914, 30 U.S.C. § 122 (any person who has acquired from the United States the right to remove minerals may occupy so much of the surface as may be required for all purposes "reasonably incident" to the mining and removal of the minerals).

31 *Rocky Mountain Fuel Co. v. Heflin,* 148 Colo. 415, 422, 366 P.2d 577, 580 (1961) is a classic case applying this reasoning to conclude that the severed mineral owner's right of access includes the "rights of ingress, egress, exploration, and surface usage as are reasonably necessary to the successful exploitation of [the mineral] interest." *See, e.g.,* Daniel A. Jensen, *How Do I Get There? Access to and Across Mining Claims and Mineral Leases,* 45 Rocky Mtn. Min. L. Inst. 20-1 (1999); Mark D. Bingham, *Access Issues and Public Lands Rights-of-Way,* Public Land Law II 7-1 (Rocky Mtn. Min. L. Fdn. 1997).

32 Federal regulations provide that a mineral lessee may use so much of the surface of the leased lands as necessary to "explore for, drill for, mine, extract, remove and dispose of all the leased resource." 43 C.F.R. § 3101.1-2 (2006) and federal standard form leases authorize construction and maintenance of necessary improvements on the lands leased. BLM, Offer to Lease and Lease for Oil and Gas, Form 3100-11, pg. 1 (Oct. 1992).

33 *See* Colby L. Branch, Kemp J. Wilson, William H. Bonney & J. Jay Park, *Crossing the 49th Parallel: Land Issues for Oil and Gas Operations in the United States and Canada*, 46 Rocky Mt. Min. L. Inst. 23-1 (2000).

5.2 Reasonable Accommodation Doctrine

As the public's attitude toward mineral development has changed, and as the values intrinsic to surface use have evolved and increased in many cases, the common law and statutory law also has adjusted. Recent court decisions emphasize that both the mineral estate owner and surface owner must exercise their rights in a manner consistent with the other.[34]

In addition to the increased favorable treatment of surface owners from the courts, the Colorado State Legislature passed a law in 2007 adopting the "reasonable accommodation doctrine."[35] (See Appendix 3.) The act codified the 1997 Colorado Supreme Court's *Gerrity v. Magness*[36] decision and requires oil and gas operators to conduct their operations "in a manner that accommodates the surface owner by minimizing intrusion upon and damage to the surface of the land."[37] This includes selecting alternative locations for wells, roads, pipelines or production facilities, or selecting other means of operation that prevent, reduce or mitigate impacts on the surface. These alternatives must be technologically sound, economically practicable and reasonably available. However, the law still allows entry on and use of the surface that is reasonable and necessary to explore for, develop and produce oil and gas.

Unfortunately, predicting how a court will apply the doctrine in conservation cases is difficult. It is still uncertain whether the courts will consider the conservation easement holder to be a surface owner and whether conservation constitutes a reasonable use. If so, an oil and gas operator would have to accommodate the easement. However, the reasonable accommodation doctrine does provide the surface owner with a stronger negotiating position for surface use agreements that will protect the conservation values on the land.

5.3 COGCC Regulations

In 2007, the Colorado Legislature passed House Bills 1298 and 1341, requiring the Colorado Oil and Gas Conservation Commission, a division of the Colorado Department of Natural Resources, to promulgate rules concerning oil and gas recovery, including the required permits and procedures. The COGCC issued draft rules in March 2008 and has worked through a lengthy public comment period to achieve a set of final rules that are slated for adoption in late 2008.

A number of the changes and new rules should be beneficial to conservation easement holders as well as to landowners who have or are considering a conservation easement on their land. These include requiring consultation between surface owners and oil and gas operators as well as consultation provisions for local governments, the Division of Wildlife and the Colorado Department of Health and Public Services. The rules also will include certain procedures for operators to minimize adverse impacts of oil and gas operations and to take wildlife into account in proposed drilling areas.[38]

5.4 Drilling Units

The Colorado legislature granted the COGCC the right to determine drilling units.[39] A drilling unit defines the total area within which one well is located to efficiently and effectively extract oil or gas

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34 *Gerrity Oil & Gas Corp. v. Magness,* 946 P.2d 913, (Colo. 1997), is a leading case in the "reasonable accommodation" doctrine. *Getty Oil Co. v. Jones,* 470 S.W.2d 618, 622 (Tex. 1971) is generally recognized as the first major decision to recognize and apply the doctrine. *See also, Hunt Oil v. Kerbaugh,* 283 N.W. 2d 131 (N.D. 1979); *Flying Diamond Corp. v. Rust,* 551 P.2d 509 (Utah 1976); *Diamond Shamrock Corp. v. Phillips,* 511 S.W.2d 160 (Ark. 1974).

35 Colo. Rev. Stat. § 34-60-127.

36 946 P.2d 913 (Colo. 1997).

37 Colo. Rev. Stat. § 34-60-127(1)(a).

38 COGCC Rulemaking available at http://oil-gas.state.co.us/RuleMaking/2007RuleMaking.cfm. (Last visited Nov. 10, 2008.)

39 Colo. Rev. Stat. § 34-60-116.

from the reservoir.[40] The unit's size is based on the targeted geologic formation from which the potential oil and gas is to be extracted, and it may not be smaller than the maximum area that can be efficiently and economically drained from one well.[41] The COGCC Web site shows the drilling units for different formations across Colorado.[42]

When two or more separately owned tracts of land are included in a drilling unit, the owners may pool their interests to operate and develop a well within the unit.[43] However, if one owner does not consent to pooling, the COGCC can still enter an order forcing the non-consenting owner into the pool.[44] This is referred to as force pooling.

The concept of force pooling is important in the conservation easement context as well. A landowner who holds 100 percent of the mineral rights associated with his land can still be force pooled into a drilling unit, so that the his/her oil or gas resource may be extracted. However, it does not appear that the force pooling order can require that a well be drilled on the non-consenting landowner's land. If the landowner is force pooled, he/she receives a royalty interest for the oil or gas extracted.[45]

40 *See* Oil and Gas Accountability Project, *Oil and Gas at Your Door? A Landowner's Guide to Oil and Gas Development,* Second Edition (2005).
41 Colo. Rev. Stat. § 34-60-116(2).
42 www.cogcc.state.co.us.
43 Colo. Rev. Stat. § 34-60-116(6).
44 Colo. Rev. Stat. § 60-116(7)(a).
45 Colo. Rev. Stat. § 34-60-116(7).

Chapter Six

Mineral Rights Investigation

6.1 Determining Ownership of Mineral Rights

Whenever a landowner considers donating a conservation easement or a conservation organization considers purchasing a conservation easement, one of the first steps is to determine the ownership of the mineral rights. The most common place to start is a title commitment, but there are several other options to discover information when the title commitment does not contain all the necessary information.

6.1.1 Title Commitment

A conservation organization should order a title commitment for all prospective conservation projects. The title commitment can help the organization determine if parties other than the landowner own or hold outstanding interests, such as mortgages, access, or other easement or mineral rights. These factors all can affect the suitability, deductibility and value of the proposed purchase or donation.

Although the title commitment is only a starting point for determining mineral ownership, it can be a critical first step. As explained in Chapter 2, if the surface estate owner also owns the mineral estate, a conservation easement donation can comply with the mineral requirements of the Code and the Regulations if the conservation easement prohibits surface mining. Therefore, the landowner and the conservation organization must determine whether any portion of the mineral estate has been severed from the surface before determining how to proceed with due diligence and drafting the conservation easement. The title commitment provides basic information about the status of ownership rights on land. It provides details on the fee ownership of the land, the legal description and all other ownership or use documents recorded in the real property records of the county where the land is located. The title commitment may also indicate whether the mineral estate has been severed from the surface estate by a reservation or an outright conveyance, or whether the mineral estate is leased. Unfortunately, mineral leases or other mineral estate reservations are not always recorded, so the title commitment may not necessarily present the entire ownership picture.

The accuracy of the information in a title commitment is dependent on the title company and the accuracy of the county's real property records. A detailed and accurate title commitment should list all recorded documents affecting the land, including those related to mineral rights. But some title commitments do not list all documents in the commitment. Instead, they simply state that any and all mineral interests and documents related to mineral rights are excluded from the title policy's coverage. If the title company refuses to include a complete list of the recorded mineral-related documents on the title commitment, consider working with a title company willing to research the mineral interests in the real property records. Alternatively, the conservation organization could obtain a separate mineral title opinion. Either way, the landowner, and to a lesser extent the conserva-

tion organization, must conclusively determine whether the landowner owns the mineral estate.

Common title commitment errors include mistakes in the legal description, which should be carefully compared with the legal description of the land to be certain it is correct and full in scope. Another common error is related to the township, section and range or legal description of land mentioned in county records referenced by the title commitment. All supporting county records and title work should be reviewed to be sure they do intersect the land.

Errors of omission are the most common and, unfortunately, the most difficult to catch. If the title commitment does not show any mineral reservations, conveyances or leases to a third party, there is a strong likelihood that the landowner owns the mineral estate. However, there are other steps a landowner and conservation organization should consider to obtain the most comprehensive understanding of the minerals ownership. These include an inquiry to the county assessor's office in the county where the land is located, and searches of the COGCC, the Colorado Division of Reclamation, Mining and Safety, and BLM records.

6.1.2 County Assessor Records

The role of the county assessor's office is to assess property taxes against real property in the county. Most counties in Colorado assess property taxes not only against the landowner but also against the mineral estate owner. A conservation professional can call the county assessor's office or search online to determine if the assessor's records indicate the mineral estate is owned separately from the surface and is separately taxed. If the mineral estate is separately owned and taxed, then the conservation professional should assume that the landowner does not own all minerals rights even if the title commitment initially may have indicated otherwise.

6.1.3 Colorado Agency Records

The conservation organization should also search the COGCC and Colorado Division of Mining Reclamation and Safety records. (Appendix 9 provides a roadmap for accessing and obtaining information from the COGCC Web site, and Appendix 11 provides a roadmap to the CDRMS Web site.) From the COGCC records, a conservation professional can determine whether any leases, well permits or wells exist that did not appear in the county records. Again, if the COGCC records search indicates leases, well permits or wells, the conservation organization should assume that the landowner does not own all mineral rights or has leased the mineral rights to a developer. Similarly, if CDRMS records show the presence of past or present mining activities on the land, the landowner may not own all of the mineral interests.

6.1.4 BLM Records

The BLM oversees all federally owned minerals and has several kinds of records that can help to determine mineral estate ownership.

1. BLM Mineral Management Status Maps are available for Colorado. They show different types of federally reserved minerals and are available for a nominal fee from BLM field offices and from the BLM State Office.
2. The conservation organization can obtain copies of the federal patents that originally transferred title from the United States to private landowners. Such patents reserve mineral interests to the United States. If the title commitment does not refer to a U.S. patent, the conservation organization should research the BLM records to be sure a patent does not exist. If it does, the conservation organization must carefully review the patent and the federal statute authorizing it to determine what minerals and surface uses, if any, have been reserved. The statute underlying the patent will control

the authority to issue the patent and for what purposes, and the rights conveyed or reserved by the patent. (See Appendix 4 for an explanation of the federal statutes authorizing patents.)

3. The BLM GLO Web site[46] allows users to search by township, section and range for various patent types. In many cases the original patent is available to view or download.
4. Survey records are available on microfiche at the State Office and/or individual field offices. These records include GLO/BLM Field Notes and Survey Plats, 1850-present; Mineral Surveys, Field Notes and Plats 1850-present; Tract books; Historical Indexes and Master Title Plats.
5. Plats of survey in the BLM State Office Public Room are the official plats of survey for certain mineral reservations. They are documents that depict in schematic form the land subject to the mineral right. The plat of survey is often a legal requirement to establish a mineral right on a given parcel of land, so it provides definitive information about the mineral right's location. Plats of survey are associated with most types of government-created split estates, and conservation organizations can easily obtain copies from the BLM State Office Public Room.
6. BLM Geocommunicator.gov Web site[47] is an online mapping utility which shows federal mineral estates, current and closed oil/gas/coal/other mineral leases, lease agreements, stipulations, mining claims, and other information.

6.2 Conclusions

If there is no mineral reservation shown in the title commitment, the mineral estate is not separately taxed by the county assessor's office, there are no leases, wells or well permits identified by the COGCC records, there are no mining activities identified in the CDRMS, and there is no mineral reservation in any U.S. patent, it is probably safe to assume that the mineral estate is owned by the landowner and the estate is not split. If there is no split estate, no further inquiry is required, and the conservation easement can comply with the mineral requirements in the Code and the Regulations by prohibiting surface mining and restricting other methods of mining.

If an inquiry finds any part of the mineral estate is not owned by the landowner, the Code and the Regulations require that a landowner obtain a mineral report that assesses the potential for mineral extraction by any surface mining method. (See Chapter 8 on mineral assessment reports.)

The geologist should be able to complete the mineral assessment report without any additional inquiry into the mineral ownership. If the geologist determines minerals could be extracted by a method other than surface mining, such as oil and gas, then the conservation organization should request an analysis of the potential extent of any subsurface development, unless it is apparent from nearby activity.

46 BLM General Land Office Records, http://www.glorecords.blm.gov/ (last visited Nov. 17, 2008).
47 BLM Geocommunicator, http://www.geocommunicator.gov/ (last visited Nov. 17 2008).

Chapter Seven

Sand, Gravel and Other Surface Mineral Rights

THE SURFACE MINING TECHNIQUES USED TO EXTRACT SAND, GRAVEL, LIMESTONE AND OTHER BUILDING MATERIALS AFFECT CONSIDERABLE SURFACE AREA, AND POSE DIFFERENT ISSUES. The most fundamental is the question of who owns the rights to conduct such mining activities—the surface owner or the mineral interest owner? Surprisingly, there is no single answer to this question.[48]

The General Mining Act of 1872[49] provides that "valuable mineral deposits" in federal lands are open to location, meaning they are available for purchase and exploration under a claim. The Common Varieties Act of 1959[50] removed sand and gravel from the scope of the General Mining Act, specifying that common sand and gravel were no longer locatable unless they had some quality giving them distinct and special value. The basic concept is that if the sand and gravel in question derives its value from location and proximity to market, then it is not a locatable mineral, but if it has some distinct quality that gives it value, then it is. Not surprisingly, this distinction is not easy to make, and has given rise to considerable litigation.

Interrelated with these lawsuits are cases determining whether common sand and gravel were reserved by the United States or transferred to the surface owner under a variety of federal statutes. In *Watt v. Western Nuclear,*[51] the Supreme Court held that sand and gravel were minerals reserved to the United States whenever it issued patents to settlers under the Stock Raising Homestead Act of 1916.[52] Although this decision drew strong dissents from four justices and has been heavily criticized by academics and others, it led to issuance of other cases that held the same way with regard to the scope of minerals reserved from patents issued under the Taylor Grazing Act.[53] However, more recently the Supreme Court has held in *BedRoc v. United States* that the government did not reserve common varieties of sand, gravel and other building materials when it granted patents under the Pittman Act.[54] *BedRoc* also drew a strong dissent from three justices who pointed out that there was no way of rationalizing the differing results reached in *BedRoc* and *Watt.*[55]

Most state courts that considered this same issue in the context of grants or reservations by private

48 See Christopher Hayes, Now is it a Mineral? The Supreme Court Takes another Look at Sand and Gravel, 41 Rocky Mtn. Min. L. Fdn. J. n. 2 297 (2004) for a more detailed discussion of this issue.

49 30 U.S.C. § 22.

50 30 U.S.C. § 611.

51 *Watt v. W. Nuclear, Inc., 462 U.S. 36 (1983)*

52 *See also* Sunrise Valley, LLC. v. Kempthorne, 528 F.3d 1251 (10th Cir. 2008) The court upheld the district court decision that "sand, gravel, and rock" on the plaintiff's property were considered minerals reserved to the United States under the Stock-Raising Homestead Act of 1916.

53 *See* Poverty Flats Land & Cattle Co. v. United States, 788 F.2d 676 (10th Cir. 1986).

54 *See* BedRoc Ltd. LLC v. United States, 541 U.S. 176 (2004).

55 *See id.* at 189-191.

parties have concluded that ordinary sand and gravel is not conveyed to or reserved by the mineral estate owner unless the parties have done something to express clearly their intent that those materials are indeed to be included within the mineral estate.[56] In addition to an analysis of the parties' intent, further examination may be necessary when there is a question about whether sand, gravel, soil, peat and other materials were conveyed or reserved with the minerals. This examination should include a careful look at the grant or reservation and the circumstances at the time of the grant to determine whether the material was a commercially viable, minable resource at that time.

In cases of split estates the status of sand, gravel and other common varieties of building materials requires careful evaluation. The diligence review must find out whether minerals exist on the land in quantities and condition that make their extraction economically possible. If so, the reviewer must determine whether the minerals were reserved in the initial patent by the federal government. This involves determining the law under which the patent was issued. Then, assuming that some or all minerals were reserved, the reviewer must check for any court cases interpreting the scope of that reservation. Next, if these minerals passed into private ownership, the express language of any mineral conveyances or reservations must be reviewed and then compared to applicable case law in the state where the property is to determine who possesses the right to mine. If the surface owner has the rights, then the conservation easement should prohibit surface mining. However, if the rights are severed, then the landowner and conservation organization must obtain a mineral remoteness assessment report. (See Chapter 8.)

56 *See* Kinney v. Keith, 128 P.3d 297, 306 (Colo. Ct. App. 2005), Farrell v. Sayre, 270 P.2d 190, 192 (Colo. 1954), Morrison v. Socolofsky, 600 P.2d 121, 122-23 (Colo. Ct. App. 1979).

Chapter Eight

Mineral Assessment Reports

IF THE LANDOWNER DOES NOT OWN ALL OF THE MINERAL RIGHTS ASSOCIATED WITH THE LAND, THE DONATION OF THE CONSERVATION EASEMENT WILL NOT QUALIFY FOR FEDERAL AND STATE TAX BENEFITS UNLESS THE "PROBABILITY OF SURFACE MINING OCCURRING ON SUCH PROPERTY IS SO REMOTE AS TO BE NEGLIGIBLE."[57] A geologist well versed in the Code and Regulations determines remoteness on a case-by-case basis in a mineral assessment report. In instances when the conservation easement is not deductible, the conservation organization should still obtain a mineral assessment report to determine the probability of surface mining and assist in project selection process. The inquiry is important solely because the conservation easement is meant to protect certain values, regardless of the tax benefits that may or may not flow from the grant. What follows are the basic elements of a mineral assessment report and the proper investigation the preparer should undertake. (See Appendix 8 for a Mineral Assessment Report checklist.)

8.1 Definition and Purpose of Finding Remoteness

The purpose of the mineral assessment is to evaluate the minerals present on or under the land and the potential for different types of mining to develop those minerals. A typical statement of purpose in a mineral assessment report prepared in Colorado might look like this:

> The purpose of this report is to determine whether mineral resources exist on or under the property proposed for a conservation easement donation and whether such identified minerals could be economically developed at this time. This report will examine the potential for mineral development in accordance with federal laws governing the tax deductibility of conservation easements. The Internal Revenue Code §170(h)(5)(B)(ii) states that for such donations, the conservation purpose will be considered to be perpetually protected if the probability of surface mining on the property is so remote as to be negligible. Federal Treasury Regulations 26C.F.R. 1.170A-14 (g)(4) further state that a deduction will not be denied in the case of certain methods of mining that may have limited, localized impact on the real property but that are not irremediably destructive of significant conservation interests.

57 26 U.S.C. § 170(h)(5)(B)(ii); see also Treas. Reg. § 1.170A-14(g)(4)(ii)(A)(3); I.R.S. Priv. Ltr. Rul. 86-30-056 (Apr. 30, 1986); I.R.S. Priv. Ltr. Rul. 87-21-017 (Feb. 17, 1987). This exception is only available where the surface and mineral owners are not deemed "related persons" under § 267(b) or § 707(b); generally, family members and certain corporate entities are deemed "related persons". Treas. Reg. § 1.170A-14(g)(4)(ii)(2).

Unfortunately, the IRS does not define what the phrase "the probability of surface mining is so remote as to be negligible" means or how to measure it. The ambiguity results in different levels of approach, detail, effort and mineral resources considered by each geologist providing an assessment report. Conservation organizations should not view the report as a mere formality to be checked off the list of things to have in the file folder before accepting a conservation easement. Especially in areas where potential for mineral development is high, a thorough mineral assessment report is essential and the conservation organization should obtain the report at or near the beginning of the due diligence process.

8.2 Determining Remoteness

A thorough mineral assessment report is really an evaluation of mineral resource potential and mining feasibility at the time of the conservation easement's grant. Unless there are compelling reasons to expand the scope of study, it needs to cover only the suites of minerals that are not entirely owned by the surface estate. In a single conservation easement parcel, the surface estate might own 100 percent of the mineral interest on some portion of the land, zero interest on some other portion, and something in between on the remainder.

The first step in a mineral resource and mining feasibility study should be to conduct a careful review of recent title work and supporting documents to determine where severances or splits of the mineral interest exist within the property; when those splits occurred (at the time the original land patent was granted or when the mineral owner purchased them 18 months ago); who currently owns the mineral interest; and what suites of minerals are affected. In some cases the conservation organization's legal advisers or landowner's counsel might perform the summary, but it should still be included in the report so its users understand the portions of the property studied and the minerals considered. (See Chapter 6 for Mineral Rights Investigation.)

8.3 Elements of a Mineral Assessment Report

A mineral assessment report should contain a:

1. Report purpose, including the geographical and mineral scopes of the report.
2. Detailed understanding of the nature of the split estate: when it was severed, the percent of interest severed, the location of the mineral rights, what minerals are affected and current ownership and leasing status of the severed estate. This information can be found using processes detailed in Chapter 6 and should be no more than three months old.
3. Review, discussion, and analysis of geoscientific data including geologic maps of multiple scales; mineral and mining databases; national, state, local and public lands assessment reports; and published geochemical and geophysical data.
4. Summary of aerial photographs and site inspection if conducted.
5. Ranking and opinion of mineral potential and level of confidence (such as inferred, indicated, measured). Reports for conservation easement projects will typically rely on publicly available published and unpublished data. Most assessments performed for conservation easement projects do not have the budget to conduct original field sampling such as coring, lab analysis, assaying, geophysical data collection, etc. Therefore, most reports will rank the mineral potential at the inferred level of confidence.
6. Discussion of mining, metallurgical, economic, marketing, legal, environmental, political, local land use and other factors affecting whether any mineral resource is likely to be developed. The Regulations provide that the analysis should consider geological and geophysical factors as well as economic data to evaluate the commercial feasibility of

surface mining at the time of the donation of the conservation easement.[58] The opinion of the report preparer can vary widely depending on when the report is completed. As technology changes, the decision about whether mining a mineral resource is commercially feasible will also change. However, the report preparer must look only at what is feasible at the time the report is prepared. The report should include a reasonable expiration date such that a conservation easement donated after the expiration date would require a new report.

7. Statement of the probability of remoteness from surface mining. The report preparer should make this finding for each of the minerals present and for each portion of the land.
8. Statement of the probability of mining methods other than surface mining. If other mineral reserves are present that could potentially be developed in a commercially feasible manner by other than a surface mining method, the report should identify these mineral reserves and should provide detailed information regarding the potential for mineral development.
9. A map of the land that shows the area of the proposed conservation easement and identifying any areas of the land where mineral development is occurring or could occur. (See Figure A for a sample.)
10. Bibliography

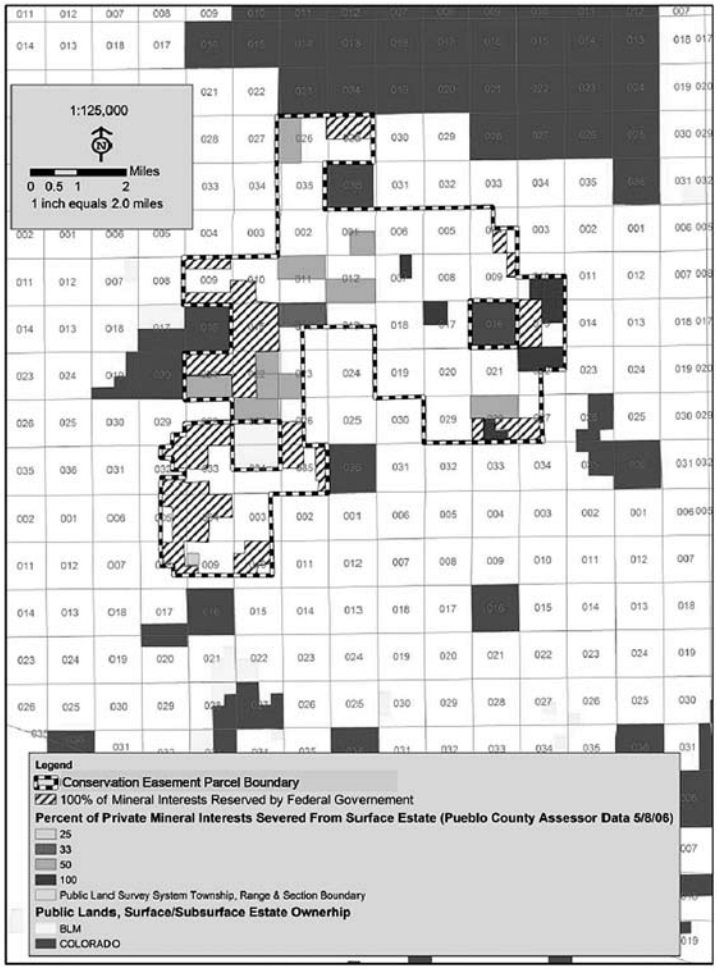


Figure A: A sample map illustrates the proposed conservation easement and identifies the areas where mineral development is ongoing or possible.

58 Treas. Reg. § 1.170A-14(g)(4)(ii)(A).

8.4 Colorado Geologic Survey Model For Ranking Mineral and Mining Potential

To determine the probability of mineral development, many geologists rely on the ranking criteria provided by the Colorado Geological Survey, created as a model to rank mineral and mining potential on State Land Board property. Remoteness is likely or probable when the CGS model rating is less than 2, while rankings of 3 or 4 would not indicate remoteness. Where a ranking of 2 is appropriate, the report should include a more thorough analysis of site-specific data, site inspection, and other compelling evidence sufficiently described to conclude that the probability of mineral development is remote.

Rating	Metallic	Coal	Oil & Gas	Industrial Minerals-Construction Materials
0.1 Little or no potential	Lacks rock types or structures that may contain metallic minerals.	Lacks strata that may contain coal; not in a coal basin.	Lacks all the essential elements of hydrocarbon accumulation.* Includes areas where intrusive rocks, metamorphic rocks, or a thin veneer of sedimentary rocks are exposed.	Lacks rock types or structures that may contain industrial minerals or construction materials.
1 Poor	Tract contains permissive rock types and structures to host metallic mineral deposits. No mineral occurrences within 5 miles.	Tract contains strata that may contain coal; in a coal basin. No coal occurrences within 5 miles.	Sedimentary rocks in the tract lack one or more of the essential elements.*	
1.5 Poor			All essential elements* exist in the tract; however, existing geological control is insufficient to determine presence of a local trap or reservoir. No production nearby.	

Table continued on following page.

3 Moderate	Tract contains permissive rock types and structures to host metallic mineral deposits. May contain mineralization. UNDISCOVERED RESOURCES can be estimated.	Tract is in a known coal basin and contains known coal bearing strata. A HYPOTHETICAL RESOURCE can be estimated.	All essential elements* are present in the immediate area. Production within 1-2 miles or tract is on trend with existing production. Geological control is insufficient to determine presence of a local trap or reservoir.	
4 Good	Tract contains metallic minerals that can be classed as IDENTIFIED RESOURCE.	Tract contains coal beds that can be classed as IDENTIFIED RESOURCE.	Geological control strongly suggest all essential elements* exist. Production or strong show within a mile or along a geological trend.	Tract contains industrial minerals or construction materials that can be classed as IDENTIFIED RESOURCE.
5 Proven	Tract contains DEMONSTRATED RESERVES and is producing metallic minerals.	Tract contains DEMONSTRATED RESERVES and is producing coal.	PROVEN DEVELOPED or PROVEN UNDEVELOPED RESERVES.	Tract contains DEMONSTRATED RESERVES and is producing industrial minerals or construction materials.

*Figure B: If a mineral assessment finds the potential for oil, gas, coalbed methane or other surface minerals, the assessor(s) must explain findings based on geological data. (Modified from Colorado State Land Board Mineral Potential Rating System**).*[59]
** Essential elements of a hydrocarbon accumulation are the presence of reservoir, a trap and source rock with appropriate timing of generation of migration.*
*** CSLB Mineral Potential Rating System is presented and used by the Colorado Geological Survey in their countywide series of Evaluation of Mineral and Mineral Fuel Potential of State Mineral Lands Administered by the Colorado State Land Board Reports.*

8.5 Options For Non-Remoteness

At the time of the conservation easement grant, if the geologist concludes that the probability of mineral development is not remote for either surface or subsurface mining, the author should:

1. Delineate spatially and by mineral resource type the areas where the probability of mineral development is not remote. Any area where surface mining is not remote cannot be included within a conservation easement that is intended to qualify for tax benefits unless the surface owner owns those minerals and the conservation easement limits or prohibits surface mining in accordance with the Code and Regulations.
2. Review the spatial arrangement of the primary conservation values on property where mineral development is not remote but that can be developed by subsurface mining. How do they relate to the mining potential? Are any of the values compatible or incompatible with mining potential considering the type of mining and typical impacts from

59 Gordon H. Wood, Jr., Thomas M. Kehn, M. Devereux Carter, and William C. Culbertson, *Coal Resource Classification System of the U.S. Geological Survey,* GEOLOGICAL SURVEY CIRCULAR 891, March 31, 2003, http://pubs.usgs.gov/circ/c891/.

similar operations? This may be outside the scope of the mineral assessment report or may need to be coordinated with the biologist or other conservation expert who has completed the baseline report.

3. Conduct an analysis of whether the portion of the land with mineral development potential could be excluded from the conservation easements or included within a conservation easement that is not intended to qualify for income tax deductions or tax credits.
4. Include the results in the report.

The conservation organization should not accept the conservation easement if mineral development is not remote. The exception is if the landowner and the organization agree the easement is not intended to qualify for tax benefits and that it meets the goals of each, or the landowner or organization reassembles the mineral ownership in one party. In some cases, a nondeductible conservation easement on all or a part of the property may meet the goals of the landowner to protect the land, and be consistent with the mission of the conservation organization.

Chapter Nine

Impacts of Mineral Development on Conservation Values

IF THE MINERAL ASSESSMENT REPORT INDICATES THAT SURFACE MINING IS REMOTE BUT SUBSURFACE MINING IS NOT, THE LANDOWNER AND CONSERVATION ORGANIZATION SHOULD ASSESS THE IMPACTS THE POTENTIAL SUBSURFACE MINING MAY HAVE ON THE CONSERVATION VALUES. The term impacts refers to any conservation value impairments. Different impacts may occur at different stages of the mineral development.

9.1 Types of Impacts

Impacts to conservation values may range from inconsequential to severe; they may occur instantly or develop over time; and they may be obvious or subtle. To make sense of myriad possibilities and focus on what is important, categorize impacts and consider the issue of time lags.

9.1.1 Direct vs. Indirect Impacts

Direct impacts occur at the same time and place as the mineral development activity. For example, if construction of a mine site and access roads converts five acres of shortgrass prairie to graveled pads and road surfaces, any resulting loss of habitat for prairie-dependent species would be a direct impact. Similarly, if plants or animals of conservation concern were killed during construction and operation of the mining development, the mortality would be a direct impact.

Indirect impacts occur later in time, or at a different location. If a road constructed without adequate stormwater control erodes during storm into a nearby stream or wetland, the resulting impairment to water quality would be an indirect impact. If noxious weeds growing on a gas well pad eventually spread into surrounding rangeland or natural areas, the resulting degradation of off-site landscapes would also be an indirect impact.

"Reasonably foreseeable" indirect impacts must be considered and evaluated along with the often more obvious direct impacts. Time lags between development activities and impact responses are common, and some indirect impacts may take years to develop. For example, the spread of noxious weeds from disturbed sites into adjacent habitats may take years or decades. Population responses of animals to sub-lethal impacts, such as disturbance during breeding, may also take years, especially for long-lived species. Such responses may also only become manifest in connection with another unrelated factor such as drought or disease.

9.1.2 Short- and Long-term Impacts

Another useful distinction can be made between short- and long-term impacts. Short-term impacts occur at the time of mineral activity, and do not persist for any significant length of time after it ceases. An example is soil erosion caused by construction of a well pad, which may produce an im-

pact on stream water quality. Interim reclamation effectively stops after revegetation stabilizes soils. Long-term impacts may begin at the same time, but persist over longer periods. Examples include ongoing bird collision hazard with overhead electric transmission lines, or the visual impact of a gas pipeline right-of-way clearing on a forested hillside.

9.2 How to Identify Potential Impacts

Before a conservation easement is placed on the land, the potential impacts of mineral development must be identified and evaluated. In cases where a conservation easement is already on the property, the assessment of potential impacts should be done when mineral development is imminent, to help in the negotiation of a surface use agreement with the mineral estate owner or lessee. The main responsibility rests with the conservation professionals at the organization or agency who select and approve conservation projects—the persons responsible for due diligence. Ideally, these professionals should be familiar with the types of conservation values their organization or agency protects, and they should also become familiar with the vulnerability of those conservation values to mineral development impacts. A careful site inspection is invaluable. Investigate the property, and review the baseline documentation and mineral assessment report prepared by a geologist. Consider how and where on the property mineral development could occur. Next, consider how the property's conservation values relate to potential development, using the concepts in the sections above and the resource-specific information in the next section. Finally, seek advice from professional experts—government agency personnel, hired consultants, or professionals in the community or among the organization's supporters.

9.3 Impacts to Conservation Values

To list, or even to imagine, every kind of possible impact is impossible given the varied resource values that conservation projects are intended to protect, the diversity of mineral resources and mining techniques, and the almost infinite pathways impacts can follow. Below is a list of typical conservation values. For each there is a rough definition and a discussion of the kinds of potential impacts that may result from mineral development. (See Sections 9.4.2 and 9.4.3 for best management practices and mitigation techniques.)

9.3.1 Agricultural Values

Agricultural lands are used to commercially produce crops and livestock. Most agricultural land in Colorado is rangeland where livestock graze on mostly relatively natural vegetation. Rangeland also typically provides wildlife habitat and scenic open space, too.

Farmlands are fields where crops are produced. Because much of Colorado is arid or mountainous, Colorado farms are mainly on the eastern plains or in river valleys. They can be dryland crops (not irrigated); irrigated prime farmland (on NRCS-defined prime soils); irrigated not prime farmland (on other types of soils); or high potential farmland producing specialty crops or concentrated commercial uses. Irrigated farmland, particularly with prime soils, is one of the most important agricultural resources in Colorado. In many areas it is at risk from urban development and is a prime target for conservation work.

Negative impacts can result by:

- Conversion of cropland or rangeland to cleared mining sites, roads or support infrastructure.
- Damage to existing road surfaces, fences, or gates, or disruption of agricultural practices such as grazing rotation.
- Changes in surface water availability. Some types of mining may alter surface flow or groundwater recharge, causing indirect impacts to water available for irrigation or livestock.

- Changes in surface water or groundwater quality. Inappropriate disposal of waste liquids and solids can contaminate surface or groundwater. Some mining, such as coalbed methane extraction, removes large quantities of produced water from underground. The water often is salty and substances used in drilling processes may contaminate it. Improper disposal of produced water can contaminate existing surface and groundwater.
- Disturbance to agricultural operations tends to be limited to the construction phase, but some impacts may persist for the development's operational life.
- Beneficial impacts to agriculture from mining may include improvements to private roads, fences and gates, and income from leases (where mineral rights are owned by the agricultural operator).

9.3.2 Open Space and Public Recreation

A conservation easement containing open space and public recreation as a conservation value protects the experience people have when they pass through or near a landscape. On conserved lands without public access, the public open space value is largely defined by location, visual appearance and sounds. For conserved lands with public access for recreation, the degree to which other humans are encountered may also be an important part of the open space value.

Visual Resources

The BLM developed a system, the Visual Resource Management Program, to analyze scenic values.[60] A landscape's appearance is considered in terms of form, line, color and texture. A scenic view can then be defined by how these criteria are visible in the immediate foreground (less than 150 feet), foreground (150 feet to ¼ mile), mid-ground (¼ to 1 mile), and background (1 to 5 miles). A conservation property's open space value is likely to depend in part on the location, and whether the visual resource values are unique.

Negative impacts may result from:

- New structures such as buildings, roads, installed machinery and utilities, pits or soil or rock piles. Such features can detract visually from the property's natural, rural or agricultural character. Long linear features such as pipelines, roads, or utility lines can be visible for miles, especially where areas cleared of vegetation create a strong visual contrast on slopes.
- Where public access for recreation is allowed, increased encounters between recreationists and workers and vehicles can reduce the quality of the outdoor experience.

Noise

Ambient or background noise levels are typically low for natural landscapes, and increase with human presence.

Negative impacts may be caused by:

- Noise generated by on-site equipment and machinery.
- Increased vehicle traffic.

For mining industries such as oil and gas extraction, impacts to open space values are typically more prominent during construction and less so during operation. However, some equipment—such as gas pumping and compressor stations, coal conveyors and loading facilities—can generate

60 *See generally* BLM Visual Resource Management, http://www.blm.gov/nstc/VRM/ (last visited July 18, 2008).

considerable noise throughout the operation phase.

Impacts to open space resources tend to be greater on agricultural lands or prairies, due to the flat terrain and short vegetation of homogenous color. Impacts are likely to be of concern on lands protected for their natural character, public recreational use or wildlife habitat.

9.3.3 Habitat for Fish, Wildlife and Plants

For federal tax deductibility of donated conservation interests, the IRS Code broadly defines these conservation values as "relatively natural habitat for fish, wildlife, or plants, or similar ecosystems." As a practical matter, conservation professionals usually define more specific ecological values for conserved lands. Colorado provides a tremendous variety of values, and many have served as the basis for conservation land projects in the state. Some of the common ecological values include winter range or breeding habitats for big game, habitat for animals or plants listed as threatened or endangered under the U.S. Endangered Species Act or otherwise of special conservation concern, and rare or sensitive ecosystem components such as wetlands or riparian areas.

Negative impacts may result from:

- Loss of habitat from surface disturbance and vegetation clearing.
- Fragmentation of wildlife habitat by dividing large habitat expanses into smaller areas, isolated by intervening development.
- Direct mortality of plants or animals from populations of conservation concern. Rare plants and small animals may be killed by site disturbance and vegetation clearing. Wildlife mortality may result from vehicle collisions, collision with or electrocution from transmission lines, increased avian predation when structures provide hunting perches for raptors (a potential impact in open country), or poaching caused by increased road access.
- Disturbance of wildlife during especially sensitive seasons. This includes disturbances during mating season for grouse that gather on communal display grounds to mate, nesting season for most raptors (especially during nest construction and egg incubation), and wintering big game. Disturbances may decrease reproductive success or increase mortality. The sublethal impacts of the disturbance can be difficult to detect and measure because the effects may not be manifest until later in the season or for several years, and the effects may not occur in the location where the disturbance occurred. For example, deer disturbed on winter range may migrate to a different area during summer, where they may have decreased reproductive success.
- Increased presence of invasive plants that degrade natural plant communities and decrease their value as wildlife habitat. Increases in invasive plants can result from two factors associated with mineral development. First, clearing natural vegetation from work sites and building access roads provides disturbed soil easily invaded by weeds. Second, the influx of vehicles, equipment, and workers can import weed seeds to the site, or spread weeds from infestations on the site to less disturbed parts of the conservation property. Weed seeds readily hitchhike on mud stuck to vehicles and boots, and arrive in straw bales used for mulch or sediment control. Weeds often disperse along roads once they become established on the road margins.
- Reductions in surface water from diversions to facilitate mining, or reductions in water quality, either of which may affect aquatic habitats, wetlands or riparian areas. Reduced water quality may result from increased sedimentation, contamination by spilled fluids or produced water, or contaminants leached from active or abandoned mine sites. Aquatic organisms such as spawning trout, amphibians and some invertebrates may be quite sensitive to even small changes in stream flow patterns, water chemistry and

temperature, or sediment.

- Mining-induced seepage of methane or hydrogen sulfide gas into groundwater and surface water.

Impacts to ecological values are of greatest concern for lands conserved specifically to protect such values. They may occur throughout construction and operation phases. Some, like noxious weed spread, groundwater contamination or groundwater discharge, may persist indefinitely after the life cycle of the mineral development.

9.3.4 Historic Lands or Structures

Mineral development could damage historically important land areas, or a structure or site certified by a State Historic Preservation Office or similar agency. Certified sites are protected by law, but potentially eligible sites could be vulnerable. Finally, some sites may be of local historical or cultural value, but lack protection under law.

Impacts may occur from removal of or damage to historical structures, or development within view of a historic site or land area that impairs the historic character of the site.

9.4 Mitigating Potential Impacts

Conservation organizations that intend to undertake conservation efforts in areas where mineral development is occurring or is likely to occur must also understand options for mitigating potential impacts. The goal should be to limit mining impacts to conservation values as much as possible to ensure that the conservation purpose may still be carried out. To devise a strategy, the conservation organization should consider each of the following, as discussed below: existing regulatory requirements, general concepts of mitigation, and current best management options.

9.4.1 Regulatory Requirements

Mining activities on public and private lands are regulated by a wide variety of agencies and laws. As a consequence, some potential mining impacts on conserved lands will be avoided or reduced by regulatory requirements unrelated to the property's conserved status. When evaluating and managing potential mining impacts on conserved lands, it is important to understand the regulatory requirements that would be imposed on mining operations, the likelihood of full compliance by the mining operator, and the extent of monitoring and enforcement by regulatory agencies. An exhaustive list of regulatory issues and agencies would be far too large to include in this handbook, but the following summary is provided as a starting place.

> **Local.** Permits for some mining operations may be required from county governments or other local governments. These permits generally require conformance with county master plans, land use codes and other regulations involving issues like building setback requirements, waste disposal and weed control. A few Colorado counties have permitting regulations and performance standards specifically for oil and gas development.[61]
>
> **State.** In Colorado, all oil and gas wells, including coalbed methane wells, require a COGCC permit that specifies a bond to fund remediation actions, procedures for reclamation and spill containment, and best management practices to minimize impacts of surface disturbances. Other industries must ob-

61 *See* La Plata County Impact Report, Table 6-5.

tain reclamation permits from the CDRMS Office of Mined Land Reclamation under the Minerals Program or the Coal Program. All mining operations are subject to various state laws and regulations administered by the Colorado Department of Public Health and Environment, which governs air and water quality. In most circumstances, permits and monitoring are necessary relating to air emissions, water discharges and waste management, and stormwater management. Colorado's wildlife statutes and regulations control the take of game and nongame species, and provide full protection for Colorado's threatened or endangered wildlife.

Federal. The BLM regulates siting, surface disturbance and other aspects of mining on U.S. and private lands with federal mineral estates. For oil and gas development on federal leases, environmental protection requirements are found in the approved Application to Drill or Right of Way Grant/Surface Use Permit. Of particular relevance to conservation values are BLM-required Stipulations and Conditions of Approval. An on-site inspection is required prior to surface-disturbing activities, and Conditions of Approval may be modified or added based on the inspection. This process provides one of several opportunities for conservation personnel to participate in the identification and mitigation of impacts to conservation values. Other federal agencies have additional regulatory authority over certain industries such as uranium/vanadium (U.S. Department of Energy) and coal (U.S. Department of Interior, Office of Surface Mining). All mining operations are subject to the requirements of various federal environmental laws such as the Clean Water Act (regulating dredge or fill in waters of the U.S. or jurisdictional wetlands), the Endangered Species Act and other laws regulating the take of protected wildlife and plants, and many other laws regulating construction, transportation, and related mining actions.

9.4.2 Mitigation

In its broadest sense, mitigation often is used to describe any practice that avoids unacceptable impacts, or reduces impacts to acceptable levels. The National Environmental Policy Act (NEPA)[62] defines policies for mitigation of environmental impacts of federal actions, and NEPA's mitigation concepts are applicable beyond the federal government's scope of actions. Mitigation includes:

1. Avoiding the impact by not taking a certain action or parts of an action.
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
5. Compensating for the impact by replacing or providing substitute resources or environments.[63]

The term mitigation is also sometimes used more narrowly to mean compensation and replacement, in the sense of No. 5 above.

When considering mitigation, the above actions should be considered in order of priority. Avoid-

62 42 U.S.C. §§ 4321–47.
63 40 C.F.R. 1508.20

ing impacts is the most effective and desirable mitigation, followed in order by reducing impacts, and lastly, replacing affected resources or environments.

9.4.3 Best Management Options

It is important to remember that in most circumstances the mineral estate owner or lessee's relationship is not with the conservation organization but with the landowner. The conservation organization may consider requiring notice of potential mineral development by the landowner in the conservation easement to ensure the organization is involved early in the process.

To get started, any attempt to manage mining impacts should include these general considerations:

- Secure commitment. Take every opportunity to work with operators and surface owners to encourage Surface Use Agreements or similar arrangements that stipulate performance standards. (See Chapter 11 for surface use agreement details.)
- Siting. Operations should be avoided or sufficiently mitigated in sensitive areas that are important to the property's conservation values. Examples might include riparian areas or wetlands, areas subject to severe erosion, key habitats for wildlife or plants of special conservation concern, or highly scenic areas visible to the public. Facility siting should also consider the resulting locations of access roads, utility lines and pipelines, and other ancillary developments.
- Resource inventory. In some cases good facility siting decisions may require a special inventory of sensitive resources on a conservation property. For example, baseline documentation may have identified the general locations of a rare plant population or potential nesting habitat for sensitive birds, but a more thorough inventory may be advisable or necessary to determine the exact locations of individual plants or bird nest sites.
- Best Management Practices. BMPs are concepts and techniques developed to represent the latest current knowledge in natural resources management and environmental protection. BMPs for mining impacts may be developed by industry, government agencies or conservation organizations. They tend to change rapidly with technological innovations, increases in scientific understanding of impacts to resources, and shifts in public attitudes and government regulatory requirements. As a consequence, some basic concepts and current BMP sources are included here, rather than an exhaustive list that would soon be out of date.

BMP sources include:

- BLM and U.S. Forest Service: The Gold Book, Fourth Edition.[64] Provides detailed surface operating standards for oil and gas development; useful for mitigating impacts to all natural resources.
- Colorado Division of Wildlife, Grand Junction, unpublished list of BMPs with relevance to wildlife.
- The U.S. Forest Service's Low-Volume Roads Engineering: Best Management Practices Field Guide.[65] Explains practices for road design to minimize site disturbance and impacts to soils, vegetation, and hydrology.
- Western Governors Association: Coal Bed Methane Best Management Practices Hand-

64 The Gold Book, 4th ed. (BLM & USFS 2006), *available at* http://www.blm.gov/bmp/goldbook.htm (last visited July 18, 2008).

65 Gordon Keller and James Sherar, Low Volume Roads Engineering: Best Management Practices Field Guide (USFS 2003), *available at* http://ntl.bts.gov/lib/24000/24600/24650/Index_BMP_Field_Guide.htm (last visited July 18, 2008).

book.[66] Discusses a full complement of BMPs to mitigate environmental impacts. Especially useful are sample Surface Use Agreements, Water Well Mitigation Agreements and examples of beneficial use strategies for produced water.

- The EPA's National Menu of Stormwater Best Management Practices.[67] Provides BMPs for controlling stormwater runoff during and after construction activities.

66 Western Governors Association, Coal Bed Methane Best Management Practices Handbook (2006), *available at* http://www.westgov.org/wga/initiatives/coalbed/CoalBedMethane.pdf (last visited July 18, 2008).

67 United States Environmental Protection Agency, National Menu of Stormwater Best Management Practices (2007), *available at* http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm.

Chapter Ten

Project Selection

MOST CONSERVATION ORGANIZATIONS HAVE PROJECT SELECTION CRITERIA AS WELL AS A PROCESS TO COMPLETE PROJECTS. The process typically includes pre-screening and selection process, due diligence, project closing and a post closing/stewardship process. While the level of work associated with each stage varies by organization, the process is necessary to ensure key steps are complete and the project complies with the applicable state and federal laws. (See Appendix 7 for a Due Diligence and Project Selection flow chart.)

10.1 The Project Selection Process and Severed Mineral Interests

Due diligence involves an early investigation of title to the property, focusing on issues affecting surface ownership. Examining the title, with particular emphasis on who owns the mineral estate, is critical and must be completed early in the due diligence process. The title and mineral investigation provides an indication of whether the project can proceed with a standard due diligence review or whether it requires a much more in depth and costly review. Understanding the property's mineral ownership and the potential impacts on its conservation values is required by law and can result in deal breakers. (See Chapter 6 for how to determine the ownership and status of mineral rights.)

10.2 Key Decision Points

If the title and mineral review indicate severed mineral interests, a mineral assessment report may be required. The first step: Hire a geologist to consider the geological and geophysical factors, as well as the economic data, to determine "if the probability of surface mining occurring on the property is so remote as to be negligible." If the mineral assessment report includes the pertinent background data and analysis and the geologist opinion finds remoteness, the conservation organization should be in a position to proceed. (See Chapter 8 for the basic elements and process for a mineral assessment report.)

If the geologist finds non-remoteness, the conservation organization and landowner are faced with choices about how to proceed. If they opt to examine the mineral issue further, the process requires additional due diligence expertise, time and ultimately costs for the overall project. While a decision to dig deeper may be the right decision and result in a successful conservation project, this is a point where the conservation organization needs to exhibit professionalism and patience. Specifically, the conservation organization must understand the significance of the severed minerals interest and the impacts to the conservation values; present the information and implications to the landowner, as well as the organization's staff and board; and determine the best course of action.

The initial mineral assessment report should confirm whether the extraction or removal of miner-

als could be done by any surface mining method. Whether surface mining activities are likely on the property will help determine whether the easement will protect conservation purposes in perpetuity and whether the conservation easement will be tax deductible. If surface mining is likely to occur on the property, the conservation organization and landowner must discuss the issue with legal counsel to decide if they want to proceed. Often, the decision at this point is to stop.

Even so, Treasury Regulations allow certain mining methods that are not "inconsistent with the particular conservation purposes of a contribution" if the mining is "not destructive of significant conservation interests" and has a "limited and localized impact on the real property contributed."

In this instance, the conservation easement should include a blanket restriction on surface mining. The conservation organization will have to have documentation that the permitted mining methods will have a limited and localized impact on the land and will not be destructive of significant conservation interests. As discussed in Chapter 9, evaluating the impacts to the conservation values is not an easy task.

The conservation organization should spatially qualify and quantify the property's conservation values; understand the types of impacts, direct and indirect, short-term & long-term; and develop a plan to manage the impacts to the greatest extent possible. The additional work can result in a successful conservation project, but there is no guarantee of success. The outcome varies by case.

10.3 Severed Mineral Interests and Public Perception

Understanding and addressing severed mineral interests within conservation easements raises several organizational considerations, including but not limited to: project selection; due diligence; easement drafting; baseline documentation; stewardship issues; and public relations and communications. To be able to examine how severed minerals affect conservation projects, the conservation organization must have a general understanding of the mineral issues affecting its geographic region and know how to obtain additional information and expertise when needed. In addition to technical expertise, the conservation organization must gauge the public's sentiment for the exploration and development of severed minerals and determine where its comfort level is with this issue.

From a public relations and communications standpoint, the conservation organization needs to understand that its conservation projects that allow for mineral exploration and development will be highly visible to the general public and may be criticized by certain segments. Accordingly, the conservation organization must know the topic and be able to communicate intelligently with the staff, board, private landowners and the public. Having all of the answers is not necessary, but knowing who to engage to get them and representing the conservation perspective is crucial. Severed minerals can pose a significant threat to conservation projects and the public perception of the conservation organization's role is very important. The organization is acting in the interest of the public and must be cognizant of how its actions will be perceived. To accomplish this, the conservation organization should:

- Know the facts and organizational position;
- Possess a basic understanding of mineral exploration and development in its geographic region;
- Know where and how to obtain additional information and expertise;
- Develop a general direction with the staff and board;
- Address the issue early in the project selection process;
- Be intentional and pro-active with information;
- Be transparent;
- Establish relationships with parties involved, but keep organizational interests in front; and
- Get assistance when necessary.

Severed mineral interests affect the title ownership of the property and can significantly affect conservation projects Understanding which minerals have been severed from the surface ownership is a crucial first step and cannot be completed without good title research and investigation. By examining the title and mineral information, the conservation organization and the landowner will understand whether any severed mineral rights could affect the conservation project's purpose and be able to define available options. This in turn will provide insight as to which due diligence steps will be necessary.

The decision to proceed with a conservation project when the mineral interests have been severed from the surface estate may be the correct decision. Good conservation projects can occur in situations where the land has severed minerals as long as the conservation organization thoroughly gathers the pertinent background information and makes an informed decision.

Chapter Eleven

Surface Use Agreements

THE SURFACE USE AGREEMENT IS THE SINGLE MOST FLEXIBLE AND POWERFUL TOOL FOR A LANDOWNER AND A CONSERVATION ORGANIZATION IN DEALING WITH MINERAL INTERESTS. A suitable surface use agreement will specify exactly what activities and facilities will and will not be permitted on the property, where they will be located, when they can be developed, and how and when reclamation will occur. If the restrictions imposed by a surface use agreement are sufficient and done properly, they will ensure that future mineral development will be minimally destructive of conservation purposes, and will provide the proof necessary to allow deductibility of a conservation easement donation. By contrast, the absence of an agreement increases the likelihood that drilling may affect one or more of the property's conservation values. While surface owners are unlikely to be able to completely ban mineral development on their property, they do have considerable power to shape the manner in which mineral exploration will take place.

In cases where the surface owner wishes to donate a conservation easement on land subject to outstanding mineral interests, the proposed conservation organization can be authorized to negotiate on behalf of itself and its donor or simply reserve itself a seat at the negotiations table. In many instances, the conservation organization will be able to help craft an agreement that substantially reduces the short- and long-term impacts of mineral development and resulting threat to conservation purposes.

11.1 Items typically negotiated and included in surface use agreements

11.1.1 Limit the number of wellsites

Operators are increasingly willing to limit the number of wellpads. Technologic advances in slant-drilling techniques have increased the accuracy of non-vertical drilling and reduced the incremental costs, making such agreements more economic and less risky. Oil and gas conservation commissions have increasingly conditioned approval of denser spacing orders on the requirement that operators aggregate their wellsite locations on multi-well pads. COGCC rules require special public notice if an operator seeks permission to drill on densities greater than one well per 40 acres, guaranteeing an increased level of public involvement and a decreased chance for controversy.

Exactly how much wellsite aggregation can be negotiated will depend upon the geology of the tract, the depth of the target formations and other factors. But it is becoming possible in some areas to negotiate densities no greater than four per section, or 640 acres.

11.1.2 Establish Wellsite Locations

State oil and gas commission rules generally prescribe the legal locations for wells. Drilling windows usually consist of the applicable spacing unit, less some prescribed buffer distance from lease lines and the boundaries of the spacing unit. In Colorado, unspaced lands are subject to rules that are equivalent to 40-acre spacing. In other states, there are statewide default rules or the legal locations are specified in the orders defining rules for the applicable field. In some areas, more than one field covers the same tract of land and different sets of spacing orders and rules may apply. In this situation, it is usually permissible to drill separate wells, at separate locations, within the same tract, so long as each one conforms with the rules applicable to its target formation. This sometimes leads to special commission orders.

Operators are usually amenable to fixing, in advance, the permissible location or locations of a wellsite within each spacing unit, particularly if the agreed upon site is a legal location under commission rules. Even if not, operators may agree to locate their wells to non-legal locations, conditioned upon their ability to obtain an exception-location from the commission. Orders such as this are routinely granted if approved by the surface owner.

Operators in the West are accustomed to being told by the BLM where they can and cannot locate wells. Standard federal lease stipulations give the BLM or other federal agency surface owners the ability to ban locations in riparian areas, on steep slopes, in areas where cultural artifacts, wildlife, or endangered or threatened species occur, and at times of year – such as elk calving season – where disturbances to such resources would be undesirable. All can be negotiated into a private surface use agreement to channel development into areas where the impact is minimized.

11.1.3 Limit the Footprint of Wellsites and Related Facilities

Depending on the size of the rig and the configuration of access, oil and gas operators can adopt procedures and utilize equipment that result in confining wellsite activity to an area of approximately two acres. They can further limit the drillsite footprint to a smaller area—usually less than one acre—after drilling and completion operations are over—so long as they can temporarily expand if reworking or re-completion activities are necessary.

Operators are subject to oil and gas commission rules regarding setbacks from existing property lines, buildings, residences, etc., and they must leave prescribed distances between wellheads and certain wellsite facilities. In negotiations over these issues, the operator will be able to provide site-specific information about these requirements, which can then be used to try to configure an agreed-upon footprint that is compatible with both the operator's requirements and the conservation purposes. It is important to know the spacing and setback requirements that govern the area. Consult the COGCC Web site for current rules and requirements.

11.1.4 Limit and Locate Access Roads, Gathering Lines and Utilities

While surface access to the wellsite is essential, its location, configuration and method of construction and maintenance are negotiable. Roads and utility access to the wellsite often result in the most impacts to conservation values. Typical provisions restrict access to existing roads, or spurs built off of existing roads in locations chosen by the surface owner. Where new roads are necessary, the surface owner can specify where they will be located, how wide the right-of-way will be, how much cut and fill will be allowed, what materials will or will not be used, whether gathering and utilities lines must be buried and/or located within the road access route, how the routes must be fenced and gated, and what maintenance procedures and schedule will be required.

11.1.5 Designate Types of Drilling Equipment

Many operators utilize closed-cycle mud systems, or portable tanks trucked to the site, in lieu of a traditional pit dug into the ground and lined with plastic. Use of such equipment reduces the well-site footprint, and mitigates the risk of spills and the possibility that the pits could prove hazardous for birds and other wildlife.

11.1.6 Locate and Limit Surface Facilities

In addition to a wellhead, oil and gas operations typically require additional facilities on or near the wellsite. These include: pumpjacks, tanks, gathering lines, flow-lines, dehydrators, heater-treaters, separators, meters and compressors. Operators often use other, often larger, facilities—compressors, separators, processing plants, evaporation pits—to serve more than one well when the size of the lease, the locations of the wells to be serviced and the specific terms of the lease allow.

Typical subjects for negotiation include which types of facilities will or will not be permitted; location; configuration; surface footprint; access routes; pipeline and easement right-of-ways; painting; fencing; visual screening; and dust suppression. Other issues are whether some or all of the proposed facilities must be constructed in a specified fashion—for example, low profile—and whether a given facility will be enclosed to mitigate noise. Will the facilities be subjected to noise or air pollution limitations? Similarly, to reduce noise and air pollution, the choice between electric or natural gas can be negotiated.

11.1.7 Limit Time and Conditions of Major Operations

If conservation values are more or less sensitive to operations conducted in given conditions or at a specific time of year, seasonal or other weather-related restrictions on drilling and completion operations are often negotiated. Other provisions bar an operator's employees from carrying guns on to the property and from hunting or otherwise disturbing or harassing wildlife. They also preclude alcoholic beverages or drugs on the property, require locking gates, and may require other behavior to preserve and protect surface resources from degradation.

11.1.8 Notification Provisions

Many statutes and government regulations require that before mineral development activity begins on a split-estate parcel, notice must be given to the surface owner; consultation regarding the proposed activity must occur if sought by the mineral owner; and a good-faith effort must be made to negotiate the terms of surface access and use – failing which a bond must be posted to secure the developer's proper performance.

Any surface use agreement involving a conservation easement donation should require that all such notices be served not only on the owner of the surface estate, but also on the conservation easement holder. Other notice and consultation provisions are common, such as express obligations of advance notification for any planned activities; obligations to meet and confer; procedures for exchange of proposals for relocation or other alteration of the proposed activity; provisions acknowledging the surface use agreement is subordinate to the terms of the conservation easement; and procedures mandating the mineral developer adhere to the requirements of the surface owner or the conservation easement holder.

11.1.9 Restoration, Reclamation and Anti-Pollution Measures

State and federal laws regulate spills, air pollution and surface water discharges during the life of the wells. They also mandate the restoration and reclamation of the properties at the end of their productive lives. Additional provisions in a surface use agreement may include requiring timely restoration and reclamation that meet a defined standard, such as restoration of native grasses and

vegetation over several growing seasons to make sure the seeds take root. Provisions can also require adequate interim reclamation and reduction of pad sizes after initial drilling activities are complete. Agreements often require financial sureties or other forms of assurances that all activities will be conducted in accordance with law and the terms of the agreement. Paying attention to and incorporating such provisions into the surface use agreement are important. Mineral development leases are usually sold sometime during their productive lives, so today's financially solvent and responsible lessee could be replaced by the surface-owner's worst nightmare. Plan accordingly.

11.1.10 Prohibit or define use of surface resources

Mineral owners have the right to utilize surface resources—water, timber and road-building material—in the exploitation of their mineral estate. Such uses should either be prohibited by the surface use agreement, or the circumstances and manner in which they occur should be carefully defined and limited to make them compatible with conservation resources.

11.1.11 Prohibit or define use of the surface to service off-lease operations

The mineral developer may or may not have the right to use the property to access or service operations on adjacent tracts. Surface use agreements should define and clarify these rights if they already exist, and they should specify how and where they may be implemented. If the rights do not exist, this issue may become important in the negotiations, particularly if the tract in question is useful or required to access other holdings of the mineral developer. This situation presents an opportunity for the surface owner or conservation easement holder to grant a right that may be needed by the mineral owner, in exchange for concessions in areas that are needed to protect conservation purposes. (See Appendix 6 for a sample surface use agreement.)

Chapter Twelve

Mineral Development on Lands Protected by Existing Conservation Easements

NEW TECHNOLOGY AND WIDENING GLOBAL DEMAND FOR METALS AND MINERALS MEAN THAT MANY CONSERVATION EASEMENTS PUT IN PLACE YEARS AGO, WHEN MINING SEEMED REMOTE, MAY NOW BE THE TARGET OF MINERAL DEVELOPMENT.

As little as 10 years ago, molybdenum, oil shale and a host of other Colorado resources were so costly to extract that mining facilities were shut down and sold. Today, particularly with the current national energy policy, the production of domestic resources has become a national priority and Colorado holds many coveted minerals.

Conservation easements created with no anticipation of mineral development will have one of two situations: either the possibility of surface mining was so remote as to be negligible and therefore, the conservation easement did not address potential third party mineral development; or the surface owner was also the mineral owner and mining was prohibited entirely. In either case, there are potential pitfalls for the easement holder.

12.1 Landowner Does Not Own all of the Mineral Rights

In the first case, where the surface owner does not own all mineral rights and there was a remote possibility for surface mining, landowners may now find themselves sitting on marketable mineral resources. Surface or subsurface mining is a distinct possibility.

Demand for minerals in a certain area is often known well before the first mine is dug or a well is drilled so landowners and conservation easement holders can take a few proactive steps.

A first step is to contact landowners to remind them of the easement terms, including any existing provisions requiring the conservation easement holder's approval of any leases or surface use agreements, and to offer assistance with potential negotiations with mineral developers. If a landowner owns none of the mineral rights, he/she will probably want to do all he/she can to protect the land and investment. Landowners who own a portion of the mineral rights and share the profits may be more interested in development. Either way, working with the landowner and the mining company is the easement holder's only avenue to protect conservation values.

Of particular importance: The conservation organization's relationship is with the landowner and not with the mineral developer. Landowners can be caught between the conservation easement holder and the mineral rights owner, and may have no legal ability to uphold the terms of the easement. A landowner or conservation organization's strongest negotiating position is often in the ability to publicly hold the mining company to rigorous standards.

12.2 Landowner Owns all Mineral Rights

If at the time the conservation easement was created, the surface owner and mineral owner were the same, chances are the conservation easement prohibits mining of any type. The landowners in this situation have total control of mineral development.

In many instances, a complete prohibition on mining is the type of outcome that conservation easements are meant to produce. With oil and gas development, the landowner could still benefit financially from the minerals by allowing non-surface drilling from a neighboring property. Some easements contain only a prohibition on surface mining. In this case, the landowner can develop the oil and gas if he or she wants to do so. The conservation organization should contact the landowner to discuss how to protect the conservation values in a lease or surface use agreement. (See Appendix 6 for sample language to include in a surface use agreement.)

A potential downside to prohibiting all mining is that the value of the minerals often far exceeds that of the surface. Some, particularly second and third owners who did not benefit from conservation easement tax incentives, may find it in their financial interest to violate the conservation easement so that they can profit from the mineral extraction. This is another reason that conservation easements need strong defense and monitoring funds.

12.3 Monitoring Mineral Development on Existing Conservation Easements

When mineral development occurs on lands covered by a conservation easement, the easement holder may find out about it only after the fact. Many oil and gas operators and mining companies have little or no experience in dealing with conservation easement-encumbered lands. They are quite likely to negotiate surface use agreements with landowners without paying attention to an organization that owns and is charged with enforcing a conservation easement.

Many times landowners assume there is little they can or should do about proposed mineral development other than extract surface damage payments, and therefore they may not give any notice to the easement holder before entering negotiations. Both the mineral developer and the landowner are likely to assume that drilling and mining activities are not bound by the terms of the conservation easement. Sometimes this assumption is correct, but other times it is not.

In all cases, a conservation organization's advance involvement in the permitting process and surface use agreement negotiations will result in increased protection. As a consequence, a conservation organization needs to implement practices and procedures designed to increase the likelihood they will learn about potential development in advance. It can then use the notice to ensure all parties know their obligations under the easement, and that all parties are bound to honor its terms.

If an easement does not contain language requiring advance involvement by the conservation organization, the entity may still gain a seat at the negotiating table when existing leases or surface use agreements are newly entered or extended. Landowner education and communication, as well as staying informed of changes on the property and in the area, are extremely important.

The level of attention given to mineral issues in the monitoring process varies with the given property location. If it is located in an active mineral exploration area and development, then the monitoring techniques suggested below should be implemented.

12.3.1 Provisions in the Conservation Easements and Education of Donors

Easement language—such as wording suggested in Appendix 5—is designed to ensure the conservation organization receives all notices owed to surface owners and require prior approval from the conservation easement holder for any subsequent leases or surface use agreements before they take effect.

A mineral developer is charged with constructive notice of all conservation easement provisions recorded in the county records. A developer's title review is likely to bring to attention the conservation organization's right to receive notices and be involved in any surface use negotiations. It is still

possible the developer or its landman will neglect to discover, read, understand and/or honor those provisions. Educating the donor about provisions increases the likelihood the mineral developer will be unable to ignore the conservation organization's proper role and will allow the conservation easement holder to participate in the discussion about what kind of development will be compatible with the conservation values. Even more important is the need to educate any assignee or successor to the donor, preferably before the land is transferred.

12.3.2 Monitor County Records

A periodic review of instruments recorded in the county records may reveal useful information. Examples include transfers of ownership of surface and/or mineral interests, surface use agreements, affidavits of production, new leases or lease extensions, amendments to leases and releases of leases.

Arrangements can be made with some title companies to provide copies of instruments affecting lands included within an easement. Alternatively, periodically order an update from an existing title policy.

12.3.3 Monitor COGCC and Other State Mining Records

COGCC maintains a Web site with timely information about orders changing spacing, wells, permit filings, and other field rules. This information can be reviewed, at no cost and with relatively little effort, to determine the level of activity in an area, and to ascertain if future drilling is planned within the easement boundary. Similar details may be available from other state offices. (See Appendix 9 for a user's guide on the COGCC Web site to find leases, permits and other useful information.) Some of these offices have procedures that allow interested parties to request inclusion on one or more lists to receive copies of filings that meet certain criteria.

CDRMS maintains a Web site with information concerning inactive and active permitted mines including coal, hardrock, metal, and aggregate mines. Information is available by county and operator. State mining rules, regulations, and reports are available. (See Appendix 11 for a CDRMS user's guide to find useful information about conservation projects.)

12.3.4 Monitor BLM Records

If easements cover lands where minerals are reserved to the federal government, or if they are located in the midst of federally owned areas, it is important to check federal resource management planning processes, leasing, mining locations, permit filings, environmental impact statements and environmental assessments. BLM Web sites, and state and local field offices are good sources for information. In areas of active oil and gas drilling where an easement covers land with federally owned mineral rights, the most significant online information pertains to lease sales. (See Appendix 10 for a guide to basic queries on oil and gas leases on the BLM's Web site.)

BLM title information and federal land patent records are becoming more available in online formats; so is information regarding unpatented mining claims. It may still be necessary to visit the state office public room for complete information, but soon that trip will be unnecessary because records are increasingly available on the Internet. In the meantime, the trip to the public room remains worthwhile. In most offices, BLM employees instruct visitors which records are available and how to use them to obtain answers.

Appendix 1

Internal Revenue Code § 170(h)

§ 170. Charitable, etc., contributions and gifts

(h) Qualified conservation contribution.—

(1) In general.—For purposes of subsection (f)(3)(B)(iii), the term "qualified conservation contribution" means a contribution—

(A) of a qualified real property interest,

(B) to a qualified organization,

(C) exclusively for conservation purposes.

(2) Qualified real property interest.—For purposes of this subsection, the term "qualified real property interest" means any of the following interests in real property:

(A) the entire interest of the donor other than a qualified mineral interest,

(B) a remainder interest, and

(C) a restriction (granted in perpetuity) on the use which may be made of the real property.

(3) Qualified organization.—For purposes of paragraph (1), the term "qualified organization" means an organization which—

(A) is described in clause (v) or (vi) of subsection (b)(1)(A), or

(B) is described in section 501(c)(3) and—

(i) meets the requirements of section 509(a)(2), or

(ii) meets the requirements of section 509(a)(3) and is controlled by an organization described in subparagraph (A) or in clause (i) of this subparagraph.

(4) Conservation purpose defined.—

(A) In general.—For purposes of this subsection, the term "conservation purpose" means—

(i) the preservation of land areas for outdoor recreation by, or the education of, the general public,

(ii) the protection of a relatively natural habitat of fish, wildlife, or plants, or similar ecosystem,

(iii) the preservation of open space (including farmland and forest land) where such preservation is—

(I) for the scenic enjoyment of the general public, or

(II) pursuant to a clearly delineated Federal, State, or local governmental conservation policy, and will yield a significant public benefit, or

(iv) the preservation of an historically important land area or a certified historic structure.

(B) Special rules with respect to buildings in registered historic districts.—In the case of any contribution of a qualified real property interest which is a restriction with respect to the exterior of a building described in subparagraph (C)(ii), such contribution shall not be considered to be exclusively for conservation purposes unless—

(i) such interest—

(I) includes a restriction which preserves the entire exterior of the building (including the front, sides, rear, and height of the building), and

(II) prohibits any change in the exterior of the building which is inconsistent with the historical character of such exterior,

(ii) the donor and donee enter into a written agreement certifying, under penalty of perjury, that the donee—

(I) is a qualified organization (as defined in paragraph (3)) with a purpose of environmental protection, land conservation, open space preservation, or historic preservation, and

(II) has the resources to manage and enforce the restriction and a commitment to do so, and

(iii) in the case of any contribution made in a taxable year beginning after the date of the enactment of this subparagraph, the taxpayer includes with the taxpayer's return for the taxable year of the contribution—

(I) a qualified appraisal (within the meaning of subsection (f)(11)(E)) of the qualified property interest,

(II) photographs of the entire exterior of the building, and

(III) a description of all restrictions on the development of the building.

(C) Certified historic structure.—For purposes of subparagraph (A)(iv), the term "certified historic structure" means—

(i) any building, structure, or land area which is listed in the National Register, or

(ii) any building which is located in a registered historic district (as defined in section 47(c)(3)(B)) and is certified by the Secretary of the Interior to the Secretary as being of historic significance to the district. A building, structure, or land area satisfies the preceding sentence if it satisfies such sentence either at the time of the transfer or on the due date (including extensions) for filing the transferor's return under this chapter for the taxable year in which the transfer is made.

(5) Exclusively for conservation purposes.—For purposes of this subsection—

(A) Conservation purpose must be protected.—A contribution shall not be treated as exclusively for conservation purposes unless the conservation purpose is protected in perpetuity.

(B) No surface mining permitted.—

(i) In general.—Except as provided in clause (ii), in the case of a contribution of any interest where there is a retention of a qualified mineral interest, subparagraph (A) shall not be treated as met if at any time there may be extraction or removal of minerals by any surface mining method.

(ii) Special rule.—With respect to any contribution of property in which the ownership of the surface estate and mineral interests has been and remains separated, subparagraph (A) shall be treated as met if the probability of surface mining occurring on such property is so remote as to be negligible.

(6) Qualified mineral interest.—For purposes of this subsection, the term "qualified mineral interest" means—

(A) subsurface oil, gas, or other minerals, and

(B) the right to access to such minerals.

I.R.C. § 170, 26 U.S.C.A. § 170

Current through P.L. 110-317 (excluding P.L. 110-234, 110-246, and 110-315) approved 8-29-08

Appendix 2

Treasury Regulations § 1.170A-14

Treas. Reg. § 1.170A-14

Effective: [See Text Amendments]

Code of Federal Regulations
Title 26. Internal Revenue
Chapter I. Internal Revenue Service, Department of the Treasury
Subchapter A. Income Tax
Part 1. Income Taxes
Normal Taxes and Surtaxes
Computation of Taxable Income
Itemized Deductions for Individuals and Corporations
§ 1.170A-14 Qualified conservation contributions.

(a) Qualified conservation contributions. A deduction under section 170 is generally not allowed for a charitable contribution of any interest in property that consists of less than the donor's entire interest in the property other than certain transfers in trust (see § 1.170A-6 relating to charitable contributions in trust and § 1.170A-7 relating to contributions not in trust of partial interests in property). However, a deduction may be allowed under section 170(f)(3)(B)(iii) for the value of a qualified conservation contribution if the requirements of this section are met. A qualified conservation contribution is the contribution of a qualified real property interest to a qualified organization exclusively for conservation purposes. To be eligible for a deduction under this section, the conservation purpose must be protected in perpetuity.

(b) Qualified real property interest—

(1) Entire interest of donor other than qualified mineral interest.

(i) The entire interest of the donor other than a qualified mineral interest is a qualified real property interest. A qualified mineral interest is the donor's interest in subsurface oil, gas, or other minerals and the right of access to such minerals.

(ii) A real property interest shall not be treated as an entire interest other than a qualified mineral interest by reason of section 170(h)(2)(A) and this paragraph (b)(1) if the property in which the donor's interest exists was divided prior to the contribution in order to enable the donor to retain control of more than a qualified mineral interest or to reduce the real property interest donated. See Treasury regulations § 1.170A-7(a)(2)(i). An entire interest in real property may consist of an undivided interest in the property. But see section 170(h)(5)(A) and the regulations thereunder (relating to the requirement that the conservation purpose which is the subject of the donation must be protected in perpetuity). Minor interests, such as rights-of-way, that will not interfere with the conservation purposes of the donation, may be transferred prior to the conservation contribution without affecting the treatment of a property interest as a qualified real property interest under this paragraph (b)(1).

(2) Perpetual conservation restriction. A "perpetual conservation restriction" is a qualified real property interest. A "perpetual conservation restriction" is a restriction granted in perpetuity on the use which may be made of real property—including, an easement or other interest in real property that under state law has attributes similar to an easement (e.g., a restrictive

covenant or equitable servitude). For purposes of this section, the terms easement, conservation restriction, and perpetual conservation restriction have the same meaning. The definition of perpetual conservation restriction under this paragraph (b)(2) is not intended to preclude the deductibility of a donation of affirmative rights to use a land or water area under § 1.170A-13(d)(2). Any rights reserved by the donor in the donation of a perpetual conservation restriction must conform to the requirements of this section. See e.g., paragraph (d)(4)(ii), (d)(5)(i), (e)(3), and (g)(4) of this section.

(c) Qualified organization—

(1) Eligible donee. To be considered an eligible donee under this section, an organization must be a qualified organization, have a commitment to protect the conservation purposes of the donation, and have the resources to enforce the restrictions. A conservation group organized or operated primarily or substantially for one of the conservation purposes specified in section 170(h)(4)(A) will be considered to have the commitment required by the preceding sentence. A qualified organization need not set aside funds to enforce the restrictions that are the subject of the contribution. For purposes of this section, the term qualified organization means:

(i) A governmental unit described in section 170(b)(1)(A)(v);

(ii) An organization described in section 170(b)(1)(A)(vi);

(iii) A charitable organization described in section 501(c)(3) that meets the public support test of section 509(a)(2);

(iv) A charitable organization described in section 501(c)(3) that meets the requirements of section 509(a)(3) and is controlled by an organization described in paragraphs (c)(1) (i), (ii), or (iii) of this section.

(2) Transfers by donee. A deduction shall be allowed for a contribution under this section only if in the instrument of conveyance the donor prohibits the donee from subsequently transferring the easement (or, in the case of a remainder interest or the reservation of a qualified mineral interest, the property), whether or not for consideration, unless the donee organization, as a condition of the subsequent transfer, requires that the conservation purposes which the contribution was originally intended to advance continue to be carried out. Moreover, subsequent transfers must be restricted to organizations qualifying, at the time of the subsequent transfer, as an eligible donee under paragraph (c)(1) of this section. When a later unexpected change in the conditions surrounding the property that is the subject of a donation under paragraph (b)(1), (2), or (3) of this section makes impossible or impractical the continued use of the property for conservation purposes, the requirement of this paragraph will be met if the property is sold or exchanged and any proceeds are used by the donee organization in a manner consistent with the conservation purposes of the original contribution. In the case of a donation under paragraph (b)(3) of this section to which the preceding sentence applies, see also paragraph (g)(5)(ii) of this section.

(d) Conservation purposes—

(1) In general. For purposes of section 170(h) and this section, the term conservation purposes means—

(i) The preservation of land areas for outdoor recreation by, or the education of, the general public, within the meaning of paragraph (d)(2) of this section,

(ii) The protection of a relatively natural habitat of fish, wildlife, or plants, or similar ecosystem, within the meaning of paragraph (d)(3) of this section,

(iii) The preservation of certain open space (including farmland and forest land) within the

meaning of paragraph (d)(4) of this section, or

(iv) The preservation of a historically important land area or a certified historic structure, within the meaning of paragraph (d)(5) of this section.

(2) Recreation or education—

(i) In general. The donation of a qualified real property interest to preserve land areas for the outdoor recreation of the general public or for the education of the general public will meet the conservation purposes test of this section. Thus, conservation purposes would include, for example, the preservation of a water area for the use of the public for boating or fishing, or a nature or hiking trail for the use of the public.

(ii) Access. The preservation of land areas for recreation or education will not meet the test of this section unless the recreation or education is for the substantial and regular use of the general public.

(3) Protection of environmental system—

(i) In general. The donation of a qualified real property interest to protect a significant relatively natural habitat in which a fish, wildlife, or plant community, or similar ecosystem normally lives will meet the conservation purposes test of this section. The fact that the habitat or environment has been altered to some extent by human activity will not result in a deduction being denied under this section if the fish, wildlife, or plants continue to exist there in a relatively natural state. For example, the preservation of a lake formed by a man-made dam or a salt pond formed by a man-made dike would meet the conservation purposes test if the lake or pond were a nature feeding area for a wildlife community that included rare, endangered, or threatened native species.

(ii) Significant habitat or ecosystem. Significant habitats and ecosystems include, but are not limited to, habitats for rare, endangered, or threatened species of animal, fish, or plants; natural areas that represent high quality examples of a terrestrial community or aquatic community, such as islands that are undeveloped or not intensely developed where the coastal ecosystem is relatively intact; and natural areas which are included in, or which contribute to, the ecological viability of a local, state, or national park, nature preserve, wildlife refuge, wilderness area, or other similar conservation area.

(iii) Access. Limitations on public access to property that is the subject of a donation under this paragraph (d)(3) shall not render the donation nondeductible. For example, a restriction on all public access to the habitat of a threatened native animal species protected by a donation under this paragraph (d)(3) would not cause the donation to be nondeductible.

(4) Preservation of open space—

(i) In general. The donation of a qualified real property interest to preserve open space (including farmland and forest land) will meet the conservation purposes test of this section if such preservation is—

(A) Pursuant to a clearly delineated Federal, state, or local governmental conservation policy and will yield a significant public benefit, or

(B) For the scenic enjoyment of the general public and will yield a significant public benefit.

An open space easement donated on or after December 18, 1980, must meet the requirements of section 170(h) in order to be deductible.

(ii) Scenic enjoyment—

(A) Factors. A contribution made for the preservation of open space may be for the scenic enjoyment of the general public. Preservation of land may be for the scenic enjoyment of the general public if development of the property would impair the scenic character of the local rural or urban landscape or would interfere with a scenic panorama that can be enjoyed from a park, nature preserve, road, water body, trail, or historic structure or land area, and such area or transportation way is open to, or utilized by, the public. "Scenic enjoyment" will be evaluated by considering all pertinent facts and circumstances germane to the contribution. Regional variations in topography, geology, biology, and cultural and economic conditions require flexibility in the application of this test, but do not lessen the burden on the taxpayer to demonstrate the scenic characteristics of a donation under this paragraph. The application of a particular objective factor to help define a view as scenic in one setting may in fact be entirely inappropriate in another setting. Among the factors to be considered are:

(1) The compatibility of the land use with other land in the vicinity;

(2) The degree of contrast and variety provided by the visual scene;

(3) The openness of the land (which would be a more significant factor in an urban or densely populated setting or in a heavily wooded area);

(4) Relief from urban closeness;

(5) The harmonious variety of shapes and textures;

(6) The degree to which the land use maintains the scale and character of the urban landscape to preserve open space, visual enjoyment, and sunlight for the surrounding area;

(7) The consistency of the proposed scenic view with a methodical state scenic identification program, such as a state landscape inventory; and

(8) The consistency of the proposed scenic view with a regional or local landscape inventory made pursuant to a sufficiently rigorous review process, especially if the donation is endorsed by an appropriate state or local governmental agency.

(B) Access. To satisfy the requirement of scenic enjoyment by the general public, visual (rather than physical) access to or across the property by the general public is sufficient. Under the terms of an open space easement on scenic property, the entire property need not be visible to the public for a donation to qualify under this section, although the public benefit from the donation may be insufficient to qualify for a deduction if only a small portion of the property is visible to the public.

(iii) Governmental conservation policy—

(A) In general. The requirement that the preservation of open space be pursuant to a clearly delineated Federal, state, or local governmental policy is intended to protect the types of property identified by representatives of the general public as worthy of preservation or conservation. A general declaration of conservation goals by a single official or legislative body is not sufficient. However, a governmental conservation policy need not be a certification program that identifies particular lots or small parcels of individually owned property. This requirement will be met by donations that further a specific, identified conservation project, such as the preservation of land within a state or local landmark district that is locally recognized as being significant to that

district; the preservation of a wild or scenic river, the preservation of farmland pursuant to a state program for flood prevention and control; or the protection of the scenic, ecological, or historic character of land that is contiguous to, or an integral part of, the surroundings of existing recreation or conservation sites. For example, the donation of a perpetual conservation restriction to a qualified organization pursuant to a formal resolution or certification by a local governmental agency established under state law specifically identifying the subject property as worthy of protection for conservation purposes will meet the requirement of this paragraph. A program need not be funded to satisfy this requirement, but the program must involve a significant commitment by the government with respect to the conservation project. For example, a governmental program according preferential tax assessment or preferential zoning for certain property deemed worthy of protection for conservation purposes would constitute a significant commitment by the government.

(B) Effect of acceptance by governmental agency. Acceptance of an easement by an agency of the Federal Government or by an agency of a state or local government (or by a commission, authority, or similar body duly constituted by the state or local government and acting on behalf of the state or local government) tends to establish the requisite clearly delineated governmental policy, although such acceptance, without more, is not sufficient. The more rigorous the review process by the governmental agency, the more the acceptance of the easement tends to establish the requisite clearly delineated governmental policy. For example, in a state where the legislature has established an Environmental Trust to accept gifts to the state which meet certain conservation purposes and to submit the gifts to a review that requires the approval of the state's highest officials, acceptance of a gift by the Trust tends to establish the requisite clearly delineated governmental policy. However, if the Trust merely accepts such gifts without a review process, the requisite clearly delineated governmental policy is not established.

(C) Access. A limitation on public access to property subject to a donation under this paragraph (d)(4)(iii) shall not render the deduction nondeductible unless the conservation purpose of the donation would be undermined or frustrated without public access. For example, a donation pursuant to a governmental policy to protect the scenic character of land near a river requires visual access to the same extent as would a donation under paragraph (d)(4)(ii) of this section.

(iv) Significant public benefit—

(A) Factors. All contributions made for the preservation of open space must yield a significant public benefit. Public benefit will be evaluated by considering all pertinent facts and circumstances germane to the contribution. Factors germane to the evaluation of public benefit from one contribution may be irrelevant in determining public benefit from another contribution. No single factor will necessarily be determinative. Among the factors to be considered are:

(1) The uniqueness of the property to the area;

(2) The intensity of land development in the vicinity of the property (both existing development and foreseeable trends of development);

(3) The consistency of the proposed open space use with public programs (whether Federal, state or local) for conservation in the region, including programs for outdoor recreation, irrigation or water supply protection, water quality maintenance or enhancement, flood prevention and control, erosion control, shoreline

protection, and protection of land areas included in, or related to, a government approved master plan or land management area;

(4) The consistency of the proposed open space use with existing private conservation programs in the area, as evidenced by other land, protected by easement or fee ownership by organizations referred to in § 1.170A-14(c)(1), in close proximity to the property;

(5) The likelihood that development of the property would lead to or contribute to degradation of the scenic, natural, or historic character of the area;

(6) The opportunity for the general public to use the property or to appreciate its scenic values;

(7) The importance of the property in preserving a local or regional landscape or resource that attracts tourism or commerce to the area;

(8) The likelihood that the donee will acquire equally desirable and valuable substitute property or property rights;

(9) The cost to the donee of enforcing the terms of the conservation restriction;

(10) The population density in the area of the property; and

(11) The consistency of the proposed open space use with a legislatively mandated program identifying particular parcels of land for future protection.

(B) Illustrations. The preservation of an ordinary tract of land would not in and of itself yield a significant public benefit, but the preservation of ordinary land areas in conjunction with other factors that demonstrate significant public benefit or the preservation of a unique land area for public employment would yield a significant public benefit. For example, the preservation of a vacant downtown lot would not by itself yield a significant public benefit, but the preservation of the downtown lot as a public garden would, absent countervailing factors, yield a significant public benefit. The following are other examples of contributions which would, absent countervailing factors, yield a significant public benefit: The preservation of farmland pursuant to a state program for flood prevention and control; the preservation of a unique natural land formation for the enjoyment of the general public; the preservation of woodland along a public highway pursuant to a government program to preserve the appearance of the area so as to maintain the scenic view from the highway; and the preservation of a stretch of undeveloped property located between a public highway and the ocean in order to maintain the scenic ocean view from the highway.

(v) Limitation. A deduction will not be allowed for the preservation of open space under section 170(h)(4)(A)(iii), if the terms of the easement permit a degree of intrusion or future development that would interfere with the essential scenic quality of the land or with the governmental conservation policy that is being furthered by the donation. See § 1.170A-14(e)(2) for rules relating to inconsistent use.

(vi) Relationship of requirements—

(A) Clearly delineated governmental policy and significant public benefit. Although the requirements of "clearly delineated governmental policy" and "significant public benefit" must be met independently, for purposes of this section the two requirements may also be related. The more specific the governmental policy with respect to the particular site to be protected, the more likely the governmental decision, by itself, will tend to establish the significant public benefit associated with the donation. For example, while a statute

in State X permitting preferential assessment for farmland is, by definition, governmental policy, it is distinguishable from a state statute, accompanied by appropriations, naming the X River as a valuable resource and articulating the legislative policy that the X River and the relatively natural quality of its surrounding be protected. On these facts, an open space easement on farmland in State X would have to demonstrate additional factors to establish "significant public benefit." The specificity of the legislative mandate to protect the X River, however, would by itself tend to establish the significant public benefit associated with an open space easement on land fronting the X River.

(B) Scenic enjoyment and significant public benefit. With respect to the relationship between the requirements of "scenic enjoyment" and "significant public benefit," since the degrees of scenic enjoyment offered by a variety of open space easements are subjective and not as easily delineated as are increasingly specific levels of governmental policy, the significant public benefit of preserving a scenic view must be independently established in all cases.

(C) Donations may satisfy more than one test. In some cases, open space easements may be both for scenic enjoyment and pursuant to a clearly delineated governmental policy. For example, the preservation of a particular scenic view identified as part of a scenic landscape inventory by a rigorous governmental review process will meet the tests of both paragraphs (d)(4)(i)(A) and (d)(4)(i)(B) of this section.

(5) Historic preservation—

(i) In general. The donation of a qualified real property interest to preserve an historically important land area or a certified historic structure will meet the conservation purposes test of this section. When restrictions to preserve a building or land area within a registered historic district permit future development on the site, a deduction will be allowed under this section only if the terms of the restrictions require that such development conform with appropriate local, state, or Federal standards for construction or rehabilitation within the district. See also, § 1.170A-14(h)(3)(ii).

(ii) Historically important land area. The term historically important land area includes:

(A) An independently significant land area including any related historic resources (for example, an archaeological site or a Civil War battlefield with related monuments, bridges, cannons, or houses) that meets the National Register Criteria for Evaluation in 36 CFR 60.4 (Pub.L. 89-665, 80 Stat. 915);

(B) Any land area within a registered historic district including any buildings on the land area that can reasonably be considered as contributing to the significance of the district; and

(C) Any land area (including related historic resources) adjacent to a property listed individually in the National Register of Historic Places (but not within a registered historic district) in a case where the physical or environmental features of the land area contribute to the historic or cultural integrity of the property.

(iii) Certified historic structure. The term certified historic structure, for purposes of this section, means any building, structure or land area which is—

(A) Listed in the National Register, or

(B) Located in a registered historic district (as defined in section 48(g)(3)(B)) and is certified by the Secretary of the Interior (pursuant to 36 CFR 67.4) to the Secretary of the Treasury as being of historic significance to the district.

A structure for purposes of this section means any structure, whether or not it is depreciable. Accordingly easements on private residences may qualify under this section. In addition, a structure would be considered to be a certified historic structure if it were certified either at the time the transfer was made or at the due date (including extensions) for filing the donor's return for the taxable year in which the contribution was made.

(iv) Access.

(A) In order for a conservation contribution described in section 170(h)(4)(A)(iv) and this paragraph (d)(5) to be deductible, some visual public access to the donated property is required. In the case of an historically important land area, the entire property need not be visible to the public for a donation to qualify under this section. However, the public benefit from the donation may be insufficient to qualify for a deduction if only a small portion of the property is so visible. Where the historic land area or certified historic structure which is the subject of the donation is not visible from a public way (e.g., the structure is hidden from view by a wall or shrubbery, the structure is too far from the public way, or interior characteristics and features of the structure are the subject of the easement), the terms of the easement must be such that the general public is given the opportunity on a regular basis to view the characteristics and features of the property which are preserved by the easement to the extent consistent with the nature and condition of the property.

(B) Factors to be considered in determining the type and amount of public access required under paragraph (d)(5)(iv)(A) of this section include the historical significance of the donated property, the nature of the features that are the subject of the easement, the remoteness or accessibility of the site of the donated property, the possibility of physical hazards to the public visiting the property (for example, an unoccupied structure in a dilapidated condition), the extent to which public access would be an unreasonable intrusion on any privacy interests of individuals living on the property, the degree to which public access would impair the preservation interests which are the subject of the donation, and the availability of opportunities for the public to view the property by means other than visits to the site.

(C) The amount of access afforded the public by the donation of an easement shall be determined with reference to the amount of access permitted by the terms of the easement which are established by the donor, rather than the amount of access actually provided by the donee organization. However, if the donor is aware of any facts indicating that the amount of access that the donee organization will provide is significantly less than the amount of access permitted under the terms of the easement, then the amount of access afforded the public shall be determined with reference to this lesser amount.

(v) Examples. The provisions of paragraph (d)(5)(iv) of this section may be illustrated by the following examples:

Example 1. A and his family live in a house in a certified historic district in the State of X. The entire house, including its interior, has architectural features representing classic Victorian period architecture. A donates an exterior and interior easement on the property to a qualified organization but continues to live in the house with his family. A's house is surrounded by a high stone wall which obscures the public's view of it from the street. Pursuant to the terms of the easement, the house may be opened

to the public from 10:00 a.m. to 4:00 p.m. on one Sunday in May and one Sunday in November each year for house and garden tours. These tours are to be under the supervision of the donee and open to members of the general public upon payment of a small fee. In addition, under the terms of the easement, the donee organization is given the right to photograph the interior and exterior of the house and distribute such photographs to magazines, newsletters, or other publicly available publications. The terms of the easement also permit persons affiliated with educational organizations, professional architectural associations, and historical societies to make an appointment through the donee organization to study the property. The donor is not aware of any facts indicating that the public access to be provided by the donee organization will be significantly less than that permitted by the terms of the easement. The 2 opportunities for public visits per year, when combined with the ability of the general public to view the architectural characteristics and features that are the subject of the easement through photographs, the opportunity for scholarly study of the property, and the fact that the house is used as an occupied residence, will enable the donation to satisfy the requirement of public access.

Example 2. B owns an unoccupied farmhouse built in the 1840's and located on a property that is adjacent to a Civil War battlefield. During the Civil War the farmhouse was used as quarters for Union troops. The battlefield is visited year round by the general public. The condition of the farmhouse is such that the safety of visitors will not be jeopardized and opening it to the public will not result in significant deterioration. The farmhouse is not visible from the battlefield or any public way. It is accessible only by way of a private road owned by B. B donates a conservation easement on the farmhouse to a qualified organization. The terms of the easement provide that the donee organization may open the property (via B's road) to the general public on four weekends each year from 8:30 a.m. to 4:00 p.m. The donation does not meet the public access requirement because the farmhouse is safe, unoccupied, and easily accessible to the general public who have come to the site to visit Civil War historic land areas (and related resources), but will only be open to the public on four weekends each year. However, the donation would meet the public access requirement if the terms of the easement permitted the donee organization to open the property to the public every other weekend during the year and the donor is not aware of any facts indicating that the donee organization will provide significantly less access than that permitted.

(e) Exclusively for conservation purposes—

(1) In general. To meet the requirements of this section, a donation must be exclusively for conservation purposes. See paragraphs (c)(1) and (g)(1) through (g)(6)(ii) of this section. A deduction will not be denied under this section when incidental benefit inures to the donor merely as a result of conservation restrictions limiting the uses to which the donor's property may be put.

(2) Inconsistent use. Except as provided in paragraph (e)(4) of this section, a deduction will not be allowed if the contribution would accomplish one of the enumerated conservation purposes but would permit destruction of other significant conservation interests. For example, the preservation of farmland pursuant to a State program for flood prevention and control would not qualify under paragraph (d)(4) of this section if under the terms of the contribution a significant naturally occurring ecosystem could be injured or destroyed by the use of pesticides in the operation of the farm. However, this requirement is not intended to prohibit uses of the property, such as selective timber harvesting or selective farming if, under the circumstances, those uses do not impair significant conservation interests.

(3) Inconsistent use permitted. A use that is destructive of conservation interests will be permitted only if such use is necessary for the protection of the conservation interests that are the subject of the contribution. For example, a deduction for the donation of an easement to preserve an archaeological site that is listed on the National Register of Historic Places will not be disallowed if site excavation consistent with sound archaeological practices may impair a scenic view of which the land is a part. A donor may continue a pre-existing use of the property that does not conflict with the conservation purposes of the gift.

(f) Examples. The provisions of this section relating to conservation purposes may be illustrated by the following examples.

Example 1. State S contains many large tract forests that are desirable recreation and scenic areas for the general public. The forests' scenic values attract millions of people to the State. However, due to the increasing intensity of land development in State S, the continued existence of forestland parcels greater than 45 acres is threatened. J grants a perpetual easement on a 100-acre parcel of forestland that is part of one of the State's scenic areas to a qualifying organization. The easement imposes restrictions on the use of the parcel for the purpose of maintaining its scenic values. The restrictions include a requirement that the parcel be maintained forever as open space devoted exclusively to conservation purposes and wildlife protection, and that there be no commercial, industrial, residential, or other development use of such parcel. The law of State S recognizes a limited public right to enter private land, particularly for recreational pursuits, unless such land is posted or the landowner objects. The easement specifically restricts the landowner from posting the parcel, or from objecting, thereby maintaining public access to the parcel according to the custom of the State. J's parcel provides the opportunity for the public to enjoy the use of the property and appreciate its scenic values. Accordingly, J's donation qualifies for a deduction under this section.

Example 2. A qualified conservation organization owns Greenacre in fee as a nature preserve. Greenacre contains a high quality example of a tall grass prairie ecosystem. Farmacre, an operating farm, adjoins Greenacre and is a compatible buffer to the nature preserve. Conversion of Farmacre to a more intense use, such as a housing development, would adversely affect the continued use of Greenacre as a nature preserve because of human traffic generated by the development. The owner of Farmacre donates an easement preventing any future development on Farmacre to the qualified conservation organization for conservation purposes. Normal agricultural uses will be allowed on Farmacre. Accordingly, the donation qualifies for a deduction under this section.

Example 3. H owns Greenacre, a 900-acre parcel of woodland, rolling pasture, and orchards on the crest of a mountain. All of Greenacre is clearly visible from a nearby national park. Because of the strict enforcement of an applicable zoning plan, the highest and best use of Greenacre is as a subdivision of 40-acre tracts. H wishes to donate a scenic easement on Greenacre to a qualifying conservation organization, but H would like to reserve the right to subdivide Greenacre into 90-acre parcels with no more than one single-family home allowable on each parcel. Random building on the property, even as little as one home for each 90 acres, would destroy the scenic character of the view. Accordingly, no deduction would be allowable under this section.

Example 4. Assume the same facts as in example (3), except that not all of Greenacre is visible from the park and the deed of easement allows for limited cluster development of no more than five nine-acre clusters (with four houses on each cluster) located in areas generally not visible from the national park and subject to site and building plan approval by the donee organization in order to preserve the scenic view from the park. The donor and the donee have already identified sites where limited cluster development would not be visible from the park or would

not impair the view. Owners of homes in the clusters will not have any rights with respect to the surrounding Greenacre property that are not also available to the general public. Accordingly, the donation qualifies for a deduction under this section.

Example 5. In order to protect State S's declining open space that is suited for agricultural use from increasing development pressure that has led to a marked decline in such open space, the Legislature of State S passed a statute authorizing the purchase of "agricultural land development rights" on open acreage. Agricultural land development rights allow the State to place agricultural preservation restrictions on land designated as worthy of protection in order to preserve open space and farm resources. Agricultural preservation restrictions prohibit or limit construction or placement of buildings except those used for agricultural purposes or dwellings used for family living by the farmer and his family and employees; removal of mineral substances in any manner that adversely affects the land's agricultural potential; or other uses detrimental to retention of the land for agricultural use. Money has been appropriated for this program and some landowners have in fact sold their "agricultural land development rights" to State S. K owns and operates a small dairy farm in State S located in an area designated by the Legislature as worthy of protection. K desires to preserve his farm for agricultural purposes in perpetuity. Rather than selling the development rights to State S, K grants to a qualified organization an agricultural preservation restriction on his property in the form of a conservation easement. K reserves to himself, his heirs and assigns the right to manage the farm consistent with sound agricultural and management practices. The preservation of K's land is pursuant to a clearly delineated governmental policy of preserving open space available for agricultural use, and will yield a significant public benefit by preserving open space against increasing development pressures.

(g) Enforceable in perpetuity—

(1) In general. In the case of any donation under this section, any interest in the property retained by the donor (and the donor's successors in interest) must be subject to legally enforceable restrictions (for example, by recordation in the land records of the jurisdiction in which the property is located) that will prevent uses of the retained interest inconsistent with the conservation purposes of the donation. In the case of a contribution of a remainder interest, the contribution will not qualify if the tenants, whether they are tenants for life or a term of years, can use the property in a manner that diminishes the conservation values which are intended to be protected by the contribution.

(2) Protection of a conservation purpose in case of donation of property subject to a mortgage. In the case of conservation contributions made after February 13, 1986, no deduction will be permitted under this section for an interest in property which is subject to a mortgage unless the mortgagee subordinates its rights in the property to the right of the qualified organization to enforce the conservation purposes of the gift in perpetuity. For conservation contributions made prior to February 14, 1986, the requirement of section 170 (h)(5)(A) is satisfied in the case of mortgaged property (with respect to which the mortgagee has not subordinated its rights) only if the donor can demonstrate that the conservation purpose is protected in perpetuity without subordination of the mortgagee's rights.

(3) Remote future event. A deduction shall not be disallowed under section 170(f)(3)(B)(iii) and this section merely because the interest which passes to, or is vested in, the donee organization may be defeated by the performance of some act or the happening of some event, if on the date of the gift it appears that the possibility that such act or event will occur is so remote as to be negligible. See paragraph (e) of § 1.170A-1. For example, a state's statutory requirement that use restrictions must be rerecorded every 30 years to remain enforceable shall not, by itself, render an easement nonperpetual.

(4) Retention of qualified mineral interest—

(i) In general. Except as otherwise provided in paragraph (g)(4)(ii) of this section, the requirements of this section are not met and no deduction shall be allowed in the case of a contribution of any interest when there is a retention by any person of a qualified mineral interest (as defined in paragraph (b)(1)(i) of this section) if at any time there may be extractions or removal of minerals by any surface mining method. Moreover, in the case of a qualified mineral interest gift, the requirement that the conservation purposes be protected in perpetuity is not satisfied if any method of mining that is inconsistent with the particular conservation purposes of a contribution is permitted at any time. See also § 1.170A-14(e)(2). However, a deduction under this section will not be denied in the case of certain methods of mining that may have limited, localized impact on the real property but that are not irremediably destructive of significant conservation interests. For example, a deduction will not be denied in a case where production facilities are concealed or compatible with existing topography and landscape and when surface alteration is to be restored to its original state.

(ii) Exception for qualified conservation contributions after July 1984.

(A) A contribution made after July 18, 1984, of a qualified real property interest described in section 170(h)(2)(A) shall not be disqualified under the first sentence of paragraph (g)(4)(i) of this section if the following requirements are satisfied.

(1) The ownership of the surface estate and mineral interest were separated before June 13, 1976, and remain so separated up to and including the time of the contribution.

(2) The present owner of the mineral interest is not a person whose relationship to the owner of the surface estate is described at the time of the contribution in section 267(b) or section 707(b), and

(3) The probability of extraction or removal of minerals by any surface mining method is so remote as to be negligible.

Whether the probability of extraction or removal of minerals by surface mining is so remote as to be negligible is a question of fact and is to be made on a case by case basis. Relevant factors to be considered in determining if the probability of extraction or removal of minerals by surface mining is so remote as to be negligible include: Geological, geophysical or economic data showing the absence of mineral reserves on the property, or the lack of commercial feasibility at the time of the contribution of surface mining the mineral interest.

(B) If the ownership of the surface estate and mineral interest first became separated after June 12, 1976, no deduction is permitted for a contribution under this section unless surface mining on the property is completely prohibited.

(iii) Examples. The provisions of paragraph (g)(4)(i) and (ii) of this section may be illustrated by the following examples:

Example 1. K owns 5,000 acres of bottomland hardwood property along a major watershed system in the southern part of the United States. Agencies within the Department of the Interior have determined that southern bottomland hardwoods are a rapidly diminishing resource and a critical ecosystem in the south because of the intense pressure to cut the trees and convert the land to agricultural use. These agencies have further determined (and have indicated in correspondence with K) that bottomland hardwoods provide a superb habitat for numerous species and play an important role

in controlling floods and purifying rivers. K donates to a qualified organization his entire interest in this property other than his interest in the gas and oil deposits that have been identified under K's property. K covenants and can ensure that, although drilling for gas and oil on the property may have some temporary localized impact on the real property, the drilling will not interfere with the overall conservation purpose of the gift, which is to protect the unique bottomland hardwood ecosystem. Accordingly, the donation qualifies for a deduction under this section.

Example 2. Assume the same facts as in Example 1, except that in 1979, K sells the mineral interest to A, an unrelated person, in an arm's-length transaction, subject to a recorded prohibition on the removal of any minerals by any surface mining method and a recorded prohibition against any mining technique that will harm the bottomland hardwood ecosystem. After the sale to A, K donates a qualified real property interest to a qualified organization to protect the bottomland hardwood ecosystem. Since at the time of the transfer, surface mining and any mining technique that will harm the bottomland hardwood ecosystem are completely prohibited, the donation qualifies for a deduction under this section.

(5) Protection of conservation purpose where taxpayer reserves certain rights—

(i) Documentation. In the case of a donation made after February 13, 1986, of any qualified real property interest when the donor reserves rights the exercise of which may impair the conservation interests associated with the property, for a deduction to be allowable under this section the donor must make available to the donee, prior to the time the donation is made, documentation sufficient to establish the condition of the property at the time of the gift. Such documentation is designed to protect the conservation interests associated with the property, which although protected in perpetuity by the easement, could be adversely affected by the exercise of the reserved rights. Such documentation may include:

(A) The appropriate survey maps from the United States Geological Survey, showing the property line and other contiguous or nearby protected areas;

(B) A map of the area drawn to scale showing all existing man-made improvements or incursions (such as roads, buildings, fences, or gravel pits), vegetation and identification of flora and fauna (including, for example, rare species locations, animal breeding and roosting areas, and migration routes), land use history (including present uses and recent past disturbances), and distinct natural features (such as large trees and aquatic areas);

(C) An aerial photograph of the property at an appropriate scale taken as close as possible to the date the donation is made; and

(D) On-site photographs taken at appropriate locations on the property. If the terms of the donation contain restrictions with regard to a particular natural resource to be protected, such as water quality or air quality, the condition of the resource at or near the time of the gift must be established. The documentation, including the maps and photographs, must be accompanied by a statement signed by the donor and a representative of the donee clearly referencing the documentation and in substance saying "This natural resources inventory is an accurate representation of [the protected property] at the time of the transfer.".

(ii) Donee's right to inspection and legal remedies. In the case of any donation referred to in paragraph (g)(5)(i) of this section, the donor must agree to notify the donee, in writing, before exercising any reserved right, e.g. the right to extract certain minerals which

may have an adverse impact on the conservation interests associated with the qualified real property interest. The terms of the donation must provide a right of the donee to enter the property at reasonable times for the purpose of inspecting the property to determine if there is compliance with the terms of the donation. Additionally, the terms of the donation must provide a right of the donee to enforce the conservation restrictions by appropriate legal proceedings, including but not limited to, the right to require the restoration of the property to its condition at the time of the donation.

(6) Extinguishment.

(i) In general. If a subsequent unexpected change in the conditions surrounding the property that is the subject of a donation under this paragraph can make impossible or impractical the continued use of the property for conservation purposes, the conservation purpose can nonetheless be treated as protected in perpetuity if the restrictions are extinguished by judicial proceeding and all of the donee's proceeds (determined under paragraph (g)(6)(ii) of this section) from a subsequent sale or exchange of the property are used by the donee organization in a manner consistent with the conservation purposes of the original contribution.

(ii) Proceeds. In case of a donation made after February 13, 1986, for a deduction to be allowed under this section, at the time of the gift the donor must agree that the donation of the perpetual conservation restriction gives rise to a property right, immediately vested in the donee organization, with a fair market value that is at least equal to the proportionate value that the perpetual conservation restriction at the time of the gift, bears to the value of the property as a whole at that time. See § 1.170A-14(h)(3)(iii) relating to the allocation of basis. For purposes of this paragraph (g)(6)(ii), that proportionate value of the donee's property rights shall remain constant. Accordingly, when a change in conditions give rise to the extinguishment of a perpetual conservation restriction under paragraph (g)(6)(i) of this section, the donee organization, on a subsequent sale, exchange, or involuntary conversion of the subject property, must be entitled to a portion of the proceeds at least equal to that proportionate value of the perpetual conservation restriction, unless state law provides that the donor is entitled to the full proceeds from the conversion without regard to the terms of the prior perpetual conservation restriction.

(h) Valuation—

(1) Entire interest of donor other than qualified mineral interest. The value of the contribution under section 170 in the case of a contribution of a taxpayer's entire interest in property other than a qualified mineral interest is the fair market value of the surface rights in the property contributed. The value of the contribution shall be computed without regard to the mineral rights. See paragraph (h)(4), example (1), of this section.

(2) Remainder interest in real property. In the case of a contribution of any remainder interest in real property, section 170(f)(4) provides that in determining the value of such interest for purposes of section 170, depreciation and depletion of such property shall be taken into account. See § 1.170A-12. In the case of the contribution of a remainder interest for conservation purposes, the current fair market value of the property (against which the limitations of § 1.170A-12 are applied) must take into account any pre-existing or contemporaneously recorded rights limiting, for conservation purposes, the use to which the subject property may be put.

(3) Perpetual conservation restriction—

(i) In general. The value of the contribution under section 170 in the case of a charitable contribution of a perpetual conservation restriction is the fair market value of the per-

petual conservation restriction at the time of the contribution. See § 1.170A-7(c). If there is a substantial record of sales of easements comparable to the donated easement (such as purchases pursuant to a governmental program), the fair market value of the donated easement is based on the sales prices of such comparable easements. If no substantial record of market-place sales is available to use as a meaningful or valid comparison, as a general rule (but not necessarily in all cases) the fair market value of a perpetual conservation restriction is equal to the difference between the fair market value of the property it encumbers before the granting of the restriction and the fair market value of the encumbered property after the granting of the restriction. The amount of the deduction in the case of a charitable contribution of a perpetual conservation restriction covering a portion of the contiguous property owned by a donor and the donor's family (as defined in section 267(c)(4)) is the difference between the fair market value of the entire contiguous parcel of property before and after the granting of the restriction. If the granting of a perpetual conservation restriction after January 14, 1986, has the effect of increasing the value of any other property owned by the donor or a related person, the amount of the deduction for the conservation contribution shall be reduced by the amount of the increase in the value of the other property, whether or not such property is contiguous. If, as a result of the donation of a perpetual conservation restriction, the donor or a related person receives, or can reasonably expect to receive, financial or economic benefits that are greater than those that will inure to the general public from the transfer, no deduction is allowable under this section. However, if the donor or a related person receives, or can reasonably expect to receive, a financial or economic benefit that is substantial, but it is clearly shown that the benefit is less than the amount of the transfer, then a deduction under this section is allowable for the excess of the amount transferred over the amount of the financial or economic benefit received or reasonably expected to be received by the donor or the related person. For purposes of this paragraph (h)(3)((i), related person shall have the same meaning as in either section 267(b) or section 707(b). (See Example 10 of paragraph (h)(4) of this section.)

(ii) Fair market value of property before and after restriction. If before and after valuation is used, the fair market value of the property before contribution of the conservation restriction must take into account not only the current use of the property but also an objective assessment of how immediate or remote the likelihood is that the property, absent the restriction, would in fact be developed, as well as any effect from zoning, conservation, or historic preservation laws that already restrict the property's potential highest and best use. Further, there may be instances where the grant of a conservation restriction may have no material effect on the value of the property or may in fact serve to enhance, rather than reduce, the value of property. In such instances no deduction would be allowable. In the case of a conservation restriction that allows for any development, however limited, on the property to be protected, the fair market value of the property after contribution of the restriction must take into account the effect of the development. In the case of a conservation easement such as an easement on a certified historic structure, the fair market value of the property after contribution of the restriction must take into account the amount of access permitted by the terms of the easement. Additionally, if before and after valuation is used, an appraisal of the property after contribution of the restriction must take into account the effect of restrictions that will result in a reduction of the potential fair market value represented by highest and best use but will, nevertheless, permit uses of the property that will increase its fair market value above that represented by the property's current use. The value of a perpetual conservation restriction shall not be reduced by reason of the existence

of restrictions on transfer designed solely to ensure that the conservation restriction will be dedicated to conservation purposes. See § 1.170A-14 (c)(3).

(iii) Allocation of basis. In the case of the donation of a qualified real property interest for conservation purposes, the basis of the property retained by the donor must be adjusted by the elimination of that part of the total basis of the property that is properly allocable to the qualified real property interest granted. The amount of the basis that is allocable to the qualified real property interest shall bear the same ratio to the total basis of the property as the fair market value of the qualified real property interest bears to the fair market value of the property before the granting of the qualified real property interest. When a taxpayer donates to a qualifying conservation organization an easement on a structure with respect to which deductions are taken for depreciation, the reduction required by this paragraph (h)(3)(ii) in the basis of the property retained by the taxpayer must be allocated between the structure and the underlying land.

(4) Examples. The provisions of this section may be illustrated by the following examples. In examples illustrating the value or deductibility of donations, the applicable restrictions and limitations of § 1.170A-4, with respect to reduction in amount of charitable contributions of certain appreciated property, and § 1.170A-8, with respect to limitations on charitable deductions by individuals. must also be taken into account.

Example 1. A owns Goldacre, a property adjacent to a state park. A wants to donate Goldacre to the state to be used as part of the park, but A wants to reserve a qualified mineral interest in the property, to exploit currently and to devise at death. The fair market value of the surface rights in Goldacre is $200,000 and the fair market value of the mineral rights in $100,000. In order to ensure that the quality of the park will not be degraded, restrictions must be imposed on the right to extract the minerals that reduce the fair market value of the mineral rights to $80,000. Under this section, the value of the contribution is $200,000 (the value of the surface rights).

Example 2. In 1984 B, who is 62, donates a remainder interest in Greenacre to a qualifying organization for conservation purposes. Greenacre is a tract of 200 acres of undeveloped woodland that is valued at $200,000 at its highest and best use. Under § 1.170A-12(b), the value of a remainder interest in real property following one life is determined under § 25.2512-5 of this chapter (Gift Tax Regulations). (See § 25.2512-5A of this chapter with respect to the valuation of annuities, interests for life or term of years, and remainder or reversionary interests transferred before May 1, 1999.) Accordingly, the value of the remainder interest, and thus the amount eligible for an income tax deduction under section 170(f), is $55,996 ($200,000 x .27998).

Example 3. Assume the same facts as in Example 2, except that Greenacre is B's 200-acre estate with a home built during the colonial period. Some of the acreage around the home is cleared; the balance of Greenacre, except for access roads, is wooded and undeveloped. See section 170(f)(3)(B)(i). However, B would like Greenacre to be maintained in its current state after his death, so he donates a remainder interest in Greenacre to a qualifying organization for conservation purposes pursuant to section 170 (f)(3)(B)(iii) and (h)(2)(B). At the time of the gift the land has a value of $200,000 and the house has a value of $100,000. The value of the remainder interest, and thus the amount eligible for an income tax deduction under section 170(f), is computed pursuant to § 1.170A-12. See § 1.170A-12(b)(3).

Example 4. Assume the same facts as in Example 2, except that at age 62 instead of donating a remainder interest B donates an easement in Greenacre to a qualifying organization

for conservation purposes. The fair market value of Greenacre after the donation is reduced to $110,000. Accordingly, the value of the easement, and thus the amount eligible for a deduction under section 170(f), is $90,000 ($200,000 less $110,000).

Example 5. Assume the same facts as in Example 4, and assume that three years later, at age 65, B decides to donate a remainder interest in Greenacre to a qualifying organization for conservation purposes. Increasing real estate values in the area have raised the fair market value of Greenacre (subject to the easement) to $130,000. Accordingly, the value of the remainder interest, and thus the amount eligible for a deduction under section 170(f), is $41,639 ($130,000 x .32030).

Example 6. Assume the same facts as in Example 2, except that at the time of the donation of a remainder interest in Greenacre, B also donates an easement to a different qualifying organization for conservation purposes. Based on all the facts and circumstances, the value of the easement is determined to be $100,000. Therefore, the value of the property after the easement is $100,000 and the value of the remainder interest, and thus the amount eligible for deduction under section 170(f), is $27,998 ($100,000 x .27998).

Example 7. C owns Greenacre, a 200-acre estate containing a house built during the colonial period. At its highest and best use, for home development, the fair market value of Greenacre is $300,000. C donates an easement (to maintain the house and Green acre in their current state) to a qualifying organization for conservation purposes. The fair market value of Greenacre after the donation is reduced to $125,000. Accordingly, the value of the easement and the amount eligible for a deduction under section 170(f) is $175.000 ($300,000 less $125,000).

Example 8. Assume the same facts as in Example 7 and assume that three years later, C decides to donate a remainder interest in Greenacre to a qualifying organization for conservation purposes. Increasing real estate values in the area have raised the fair market value of Greenacre to $180.000. Assume that because of the perpetual easement prohibiting any development of the land, the value of the house is $120,000 and the value of the land is $60,000. The value of the remainder interest, and thus the amount eligible for an income tax deduction under section 170(f), is computed pursuant to § 1.170A-12. See § 1.170A-12(b)(3).

Example 9. D owns property with a basis of $20,000 and a fair market value of $80,000. D donates to a qualifying organization an easement for conservation purposes that is determined under this section to have a fair market value of $60,000. The amount of basis allocable to the easement is $15,000 ($60,000/ $80,000=$15,000/$20,000). Accordingly, the basis of the property is reduced to $5,000 ($20,000 minus $15,000).

Example 10. E owns 10 one-acre lots that are currently woods and parkland. The fair market value of each of E's lots is $15,000 and the basis of each lot is $3,000. E grants to the county a perpetual easement for conservation purposes to use and maintain eight of the acres as a public park and to restrict any future development on those eight acres. As a result of the restrictions, the value of the eight acres is reduced to $1,000 an acre. However, by perpetually restricting development on this portion of the land, E has ensured that the two remaining acres will always be bordered by parkland, thus increasing their fair market value to $22,500 each. If the eight acres represented all of E's land, the fair market value of the easement would be $112,000, an amount equal to the fair market value of the land before the granting of the easement (8 x $15,000=$120,000) minus the fair market value of the encumbered land after the granting of the easement (8 x $1,000=$8,000). However, because the easement only covered a portion of the taxpayer's contiguous land, the amount

of the deduction under section 170 is reduced to $97,000 ($150,000 - $53,000), that is, the difference between the fair market value of the entire tract of land before ($150,000) and after ((8 x $1,000)+(2 x $22,500)) the granting of the easement.

Example 11. Assume the same facts as in example (10). Since the easement covers a portion of E's land, only the basis of that portion is adjusted. Therefore, the amount of basis allocable to the easement is $22,400 ((8 x $3,000) x ($112,000/$120,000)). Accordingly, the basis of the eight acres encumbered by the easement is reduced to $1,600 ($24,000 - $22,400), or $200 for each acre. The basis of the two remaining acres is not affected by the donation.

Example 12. F owns and uses as professional offices a two-story building that lies within a registered historic district. F's building is an outstanding example of period architecture with a fair market value of $125,000. Restricted to its current use, which is the highest and best use of the property without making changes to the facade, the building and lot would have a fair market value of $100,000, of which $80,000 would be allocable to the building and $20,000 would be allocable to the lot. F's basis in the property is $50,000, of which $40,000 is allocable to the building and $10,000 is allocable to the lot. F's neighborhood is a mix of residential and commercial uses, and it is possible that F (or another owner) could enlarge the building for more extensive commercial use, which is its highest and best use. However, this would require changes to the facade. F would like to donate to a qualifying preservation organization an easement restricting any changes to the facade and promising to maintain the facade in perpetuity. The donation would qualify for a deduction under this section. The fair market value of the easement is $25,000 (the fair market value of the property before the easement, $125,000, minus the fair market value of the property after the easement, $100,000). Pursuant to § 1.170A-14(h)(3)(iii), the basis allocable to the easement is $10,000 and the basis of the underlying property (building and lot) is reduced to $40,000.

(i) Substantiation requirement. If a taxpayer makes a qualified conservation contribution and claims a deduction, the taxpayer must maintain written records of the fair market value of the underlying property before and after the donation and the conservation purpose furthered by the donation and such information shall be stated in the taxpayer's income tax return if required by the return or its instructions. See also § 1.170A-13(c) (relating to substantiation requirements for deductions in excess of $5,000 for charitable contributions made after 1984), and section 6659 (relating to additions to tax in the case of valuation overstatements).

(j) Effective date. Except as otherwise provided in § 1.170A-14(g)(4)(ii), this section applies only to contributions made on or after December 18, 1980.

[T.D. 8069, 51 FR 1499, Jan. 14, 1986; 51 FR 5322, Feb. 13, 1986; 51 FR 6219, Feb. 21, 1986; T.D. 8199, 53 FR 16085, May 5, 1988; T.D. 8540, 59 FR 30105, June 10, 1994; T.D. 8819, 64 FR 23228, April 30, 1999]

26 C. F. R. § 1.170A-14

Current through September 4, 2008; 73 FR 51715

Appendix 3

Colorado Statute Related to Surface Estate Rights

34-60-127. Reasonable accommodation

(1) (a) An operator shall conduct oil and gas operations in a manner that accommodates the surface owner by minimizing intrusion upon and damage to the surface of the land.

(b) As used in this section, "minimizing intrusion upon and damage to the surface" means selecting alternative locations for wells, roads, pipelines, or production facilities, or employing alternative means of operation, that prevent, reduce, or mitigate the impacts of the oil and gas operations on the surface, where such alternatives are technologically sound, economically practicable, and reasonably available to the operator.

(c) The standard of conduct set forth in this section shall not be construed to prevent an operator from entering upon and using that amount of the surface as is reasonable and necessary to explore for, develop, and produce oil and gas.

(d) The standard of conduct set forth in this section shall not be construed to abrogate or impair a contractual provision binding on the parties that expressly provides for the use of the surface for the conduct of oil and gas operations or that releases the operator from liability for the use of the surface.

(2) An operator's failure to meet the requirements set forth in this section shall give rise to a cause of action by the surface owner. Upon a determination by the trier of fact that such failure has occurred, a surface owner may seek compensatory damages or such equitable relief as is consistent with subsection (1) of this section.

(3) (a) In any litigation or arbitration based upon this section, the surface owner shall present evidence that the operator's use of the surface materially interfered with the surface owner's use of the surface of the land. After such showing, the operator shall bear the burden of proof of showing that it met the standard set out in subsection (1) of this section. If an operator makes that showing, the surface owner may present rebuttal evidence.

(b) An operator may assert, as an affirmative defense, that it has conducted oil and gas operations in accordance with a regulatory requirement, contractual obligation, or land use plan provision, that is specifically applicable to the alleged intrusion or damage.

(4) Nothing in this section shall:

(a) Preclude or impair any person from obtaining any and all other remedies allowed by law;

(b) Prevent an operator and a surface owner from addressing the use of the surface for oil and gas operations in a lease, surface use agreement, or other written contract; or

(c) Establish, alter, impair, or negate the authority of local and county governments to regulate land use related to oil and gas operations.

Source: L. 2007: Entire section added, p. 1335, § 2, effective September 1.

Editor's note: Section 3 of chapter 314, Session Laws of Colorado 2007, provides that the act applies to all oil and gas operations begun on or after September 1, 2007. The act was passed without a safety clause. For an explanation concerning the effective date, see page vii of this volume.

Cross references: For the legislative declaration contained in the 2007 act, see section 1 of chapter 314, Session Laws of Colorado 2007.

Appendix 4

Federal Land Grant Statutes

These statutes include the Coal Lands Act, the Agricultural Entry Act, and the Stock-Raising Homestead Act. Congress first provided for severance of the surface and mineral estates on the public domain with the passage of the Coal Lands Acts of 1909 and 1910. These statutes reserved to the United States all coal from lands withdrawn for coal or deemed valuable for coal and patented to settlers. The Agricultural Entry Act of 1914 and the Stock-Raising Homestead Act of 1916 provided for patents of the surface estate, reserving to the United States specified minerals or all minerals, together with the right to mine and remove the minerals and to occupy so much of the surface as may be reasonably necessary to the mineral extraction operation. Other statutes creating split estates in this manner include patents for lands in New Mexico adjacent to Spanish or Mexican land grants; reclamation and irrigation tracts; abandoned or forfeited railroad lands; small tracts for residential, recreation, business, and community sites; transfers to states for conservation of wildlife or the Secretary of the Interior for migratory bird preservation; desert lands; and Alaska Native claims.

Taylor Grazing Act

43 U.S.C. §§ 315-316o, June 28, 1934, as amended 1936, 1938, 1939, 1942, 1947, 1948, 1954 and 1976

Overview. This Act was the first federal effort to regulate grazing on federal public lands. It establishes grazing districts and uses a permitting system to manage livestock grazing in the districts.

Grazing Districts. The Secretary of the Interior (Secretary) is authorized to establish grazing districts of vacant, unappropriated and unreserved land from any parts of the public domain, excluding Alaska, which are not national forests, parks and monuments, Indian reservations, railroad grant lands, or revested Coos Bay Wagon Road grant lands, and which are valuable chiefly for grazing and raising forage crops. Whenever grazing districts are established, the Secretary shall grant adjacent landowners, upon application, rights-of-way over the lands for stock-driving purposes to provide access to marketing facilities or to lands not within the district but owned by the person with stock-grazing rights.

As adopted in 1934, the Act requires that a hearing be held in the state before grazing districts are created. There must be public notice and the location is to be convenient for state officials, settlers, residents and livestock owners of the vicinity. The publication of notice has the effect of withdrawing the lands within the exterior boundary of the proposed district from all forms of entry of settlement pending the hearing. The Act does not alter or restrict the right to hunt or fish within a grazing district. § 315.

The Secretary must: provide for the protection, administration, regulation and improvement of the grazing districts; adopt regulations and enter into cooperative agreements necessary to accomplish the purposes of the Act; regulate occupancy and use; preserve the land and resources from destruction or unnecessary injury; provide for orderly improvement and development of the range. The Secretary may continue the study of erosion and flood control and perform work to protect and rehabilitate areas subject to the Act. Willful violations of the Act, or of its rules and regulations, are punishable by fine. § 315a.

Grazing Permits. The Secretary is authorized to issue permits to graze livestock in grazing districts to settlers, residents and other stock owners upon the annual payment of reasonable fees. Permits must be for a period of not more than ten years, with renewal subject to the discretion of the Secretary, who shall specify numbers of stock and seasons of use. During periods of range depletion due to severe drought or other natural causes, or during epidemics, the Secretary may remit, reduce, refund in whole or part, or postpone payment of grazing fees for the time the

emergency exists. Grazing privileges must be safeguarded adequately but must not create any right, title, interest, or estate in or to the lands. § 315b.

Fences, wells, reservoirs and other improvements for the care and management of permitted livestock may be constructed on public lands within grazing districts under permits issued, or cooperative agreements approved, by the Secretary. Permittees are to comply with state law with respect to the cost and maintenance of partition fences. No permit entitles the permittee to use improvements constructed and owned by a prior occupant until the applicant has paid the prior occupant the reasonable value of the improvements, as determined under the Secretary's regulations. § 315c.

Use of District Lands. The Secretary must permit free grazing of domestic livestock within districts. Nothing in the Act is intended to prevent the use of timber, stone, gravel, clay, coal and other deposits by miners, prospectors, settlers and residents. Further, the Act must not restrict: the acquisition, granting or use of permits or rights-of-way within grazing districts under laws existing before the adoption of the Act; ingress or egress over public lands in these districts; prospecting, locating, developing, mining, entering, leasing or patenting mineral resources of grazing districts under applicable law. § 315d and 315e.

The Secretary is authorized to identify lands which are more valuable or suitable for the production of agricultural crops than for the production of native grasses and forage plants, or more valuable for other uses, and to open these lands to entry, selection or location for disposal, except that tracts for homestead entries may not exceed 320 acres in area. § 315f.

The Act directs the Secretary to promote cooperation among those interested in the use of the grazing districts, such as local associations of stockmen, state land officials and official state agencies engaged in the conservation or propagation of wildlife. The Secretary also must provide for local hearings on appeals from decisions of the administrative officer, and may accept contributions toward the administration, protection and improvement of lands within a grazing district. § 315h.

Use of Funds Received. Money received under the Act shall be deposited in the U.S. Treasury as miscellaneous receipts, except that 12 1/2 percent of the money collected from grazing fees shall be paid to the state in which the grazing district is located and 50 percent of the money collected for the leasing of isolated tracts under § 315m will be paid to the state in which the leased lands are located. The states' legislatures are expected to spend the funds for the benefit of the counties in which the districts or leased lands are situated. In addition, when appropriated by Congress, 33 1/3 percent of grazing fees received from grazing districts on Indian lands ceded to the U.S. for disposition under the public land laws are to be paid to the state, to be expended by the state legislature for public schools and roads in the counties in which the grazing lands are located. The other 66 2/3 percent is to be deposited to the credit of the Indians pending final disposition under applicable laws, treaties or agreements. §315i and 315j.

Leasing. The Secretary is authorized to lease for grazing purposes vacant, unappropriated and unreserved lands which are so situated as not to justify inclusion in grazing districts. Preference must be given to owners, homesteaders, lessees or other lawful occupants of contiguous land to permit proper use. When public lands are restored from a withdrawal, the Secretary may grant a preference right for a grazing lease, license or permit to users of the land for grazing purposes. § 315m.

The Secretary may lease, and determine lease rates for, state, county, or private lands valuable for grazing and lying within the exterior boundaries of a grazing district, where the leasing will promote the orderly use of the district and aid in conserving the forage resources. No lease shall run for more than ten years, and grazing fees paid to the U.S. for grazing privileges on the land shall not be less than the rental paid by the U.S. for the land. § 315m-1.

Agency Cooperation. The Secretary is authorized to cooperate with other federal agencies to carry out the purposes of the Act and coordinate range administration, particularly where stock grazes

part time in a grazing district and part time in a national forest or other reservation. § 315k.

The President may reserve by proclamation and place under national-forest administration unappropriated public lands lying within watersheds forming a part of the national forests which are best administered with the national forests. Similarly, the President can place under Interior Department administration those national forest lands which are principally valuable for grazing and best administered under this Act. § 315*l*.

Nothing in the Act shall be construed as restricting the states from enforcing statutes enacted for police regulation, and state laws regarding public health or welfare remain in full force and effect. § 315n.

Coal Lands Act Of 1909

30 USCS § 121

§ 121. Agricultural entry or purchase of lands withdrawn or classified as containing phosphate, nitrate, potash, oil, or gas; reservations to United States; application

Lands withdrawn or classified as phosphate, nitrate, potash, oil, gas, or asphaltic minerals, or which are valuable for those deposits, shall be subject to appropriation, location, selection, entry, or purchase, if otherwise available, under the nonmineral land laws of the United States, whenever such location, selection, entry, or purchase shall be made with a view of obtaining or passing title with a reservation to the United States of the deposits on account of which the lands were withdrawn or classified or reported as valuable, together with the right to prospect for, mine, and remove the same: *Provided,* That all applications to locate, select, enter, or purchase under this section shall state that the same are made in accordance with and subject to the provisions and reservations of this Act [*30 USCS §§ 121-123*].

§ 122. Patents; reservation in the United States of reserved deposits; acquisition of right to remove deposits; application for entry to disprove classification

Upon satisfactory proof of full compliance with the provisions of the laws under which the location, selection, entry, or purchase is made, the locator, selector, entryman, or purchaser shall be entitled to a patent to the land located, selected, entered, or purchased, which patent shall contain a reservation to the United States of the deposits on account of which the lands so patented were withdrawn or classified or reported as valuable, together with the right to prospect for, mine, and remove the same, such deposits to be subject to disposal by the United States only as shall be hereafter expressly directed by law: *Provided, however,* That all mineral deposits heretofore or hereafter reserved to the United States under this Act [*30 USCS §§ 121-123*] which are subject, at the time of application for patent, to valid and subsisting rights acquired by discovery and location under the mining laws of the United States made prior to the date of the Mineral Leasing Act of February 25, 1920 (41 Stat. 437), shall hereafter be subject to disposal to the holders of those valid and subsisting rights by patent under the mining laws of the United States in force at the time of such disposal. Any person qualified to acquire the reserved deposits may enter upon said lands with a view of prospecting for the same upon the approval by the Secretary of the Interior of a bond or undertaking to be filed with him as security for the payment of all damages to the crops and improvements on such lands by reason of such prospecting, the measure of any such damage to be fixed by agreement of parties or by a court of competent jurisdiction. Any person who has acquired from the United States the title to or the right to mine and remove the reserved deposits, should the United States dispose of the mineral deposits in lands, may reenter and occupy so much of the surface thereof as may be required for all purposes reasonably incident to the mining and removal of the minerals therefrom,

and mine and remove such minerals, upon payment of damages caused thereby to the owner of the land, or upon giving a good and sufficient bond or undertaking therefor in an action instituted in any competent court to ascertain and fix said damages: *Provided,* That nothing herein contained shall be held to deny or abridge the right to present and have prompt consideration of applications to locate, select, enter, or purchase, under the land laws of the United States, lands which have been withdrawn or classified as phosphate, nitrate, potash, oil, gas, or asphaltic mineral lands, with a view of disproving such classification and securing patent without reservation, nor shall persons who have located, selected, entered, or purchased lands subsequently withdrawn, or classified as valuable for said mineral deposits, be debarred from the privilege of showing, at any time before final entry, purchase, or approval of selection or location, that the lands entered, selected, or located are in fact nonmineral in character.

§ 123. Persons locating lands subsequently withdrawn or classified; patents to
Any person who has, in good faith, located, selected, entered, or purchased, or any person who shall hereafter [after July 17, 1914], locate, select, enter, or purchase under the nonmineral land laws of the United States, any lands which are subsequently withdrawn, classified, or reported as being valuable for phosphate, nitrate, potash, oil, gas, or asphaltic minerals, may, upon application therefor, and making satisfactory proof of compliance with the laws under which such lands are claimed, receive a patent therefor, which patent shall contain a reservation to the United States of all deposits on account of which the lands were withdrawn, classified, or reported as being valuable, together with the right to prospect for, mine, and remove the same.

§ 124. Agricultural entry or purchase of lands withdrawn or classified as containing sodium or sulfur. Lands withdrawn, classified or reported as valuable for sodium and/or sulphur and subject to prospecting, leasing, or development under the General Leasing Act of February 25, 1920, or Acts amendatory thereof or supplementary thereto, shall be subject to appropriation, location, selection, entry, or purchase if otherwise available in the form and manner and subject to the reservations, provisions, limitations, and conditions of the Act of Congress approved July 17, 1914 (38 Stat. L. 509; U. S. C., title 30, sec. 123) [30 USCS §§ 121-123], Provided, however, That lands lying within the geologic structure of a field, or withdrawn, classified, or reported as valuable for any of the minerals named herein and/or in any of said Acts, or upon which leases or prospecting permits have been applied for or granted, for the production of any of such minerals, shall not be subject to such appropriation, location, selection, entry, or purchase unless it shall be determined by the Secretary of the Interior that such disposal will not unreasonably interfere with operations under said leasing Acts.

§ 125. Patents in North Platte Reclamation Project; mineral rights; subrogation
Where reclamation homestead entry was made prior to July 17, 1914, pursuant to the Act of June 17, 1902 (32 Stat. 389, 43 U. S. C., sec. 431), as amended and supplemented, for lands in the Northport Division or the Interstate Division of the North Platte Reclamation Project, and after such entry the lands have been or are hereafter withdrawn, classified, or reported as being valuable for any of the minerals named in the Act of July 17, 1914 (38 Stat. 509, 30 U. S. C., sec. 121-123), the Act of March 4, 1933 (47 Stat. 1570, 30 U. S. C., sec. 81), the Act of March 3, 1909 (35 Stat. 844, 30 U. S. C., sec. 81), the patent shall not contain a reservation of such minerals. If any such mineral deposits on account of which the lands were withdrawn, classified or reported as being valuable have been leased by the United States, such patent shall be made subject to the rights of the lessee, but the patentee shall be subrogated to the rights of the United States under the lease.

Coal Lands Act Of 1910

30 USCS § 83

§ 83. Homestead or desert-land and other entries

From and after the passage of this Act [enacted June 22, 1910] unreserved public lands of the United States exclusive of Alaska which have been withdrawn or classified as coal lands, or are valuable for coal, shall be subject to appropriate entry under the homestead laws by actual settlers only, the desert-land law, to selection under section four of the Act approved August eighteenth, eighteen hundred and ninety-four, known as the Carey Act [*43 USCS § 641*], and to withdrawal under the Act approved June seventeenth, nineteen hundred and two, known as the Reclamation Act, whenever such entry, selection, or withdrawal shall be made with a view of obtaining or passing title, with a reservation to the United States of the coal in such lands and of the right to prospect for, mine, and remove the same. But all homestead entries made hereunder shall be subject to the conditions, as to residence and cultivation, of entries under the Act approved February nineteenth, nineteen hundred and nine, entitled "An Act to provide for an enlarged homestead [*43 USCS § 218*]:" *Provided,* That those who have initiated non-mineral entries, selections, or locations in good faith, prior to the passage of this Act [enacted June 22, 1910], on lands withdrawn or classified as coal lands may perfect the same under the provisions of the laws under which said entries were made, but shall receive the limited patent provided for in this Act [*30 USCS §§ 83* et seq.].

HISTORY:

(June 22, 1910, ch 318, § 1, 36 Stat. 583; June 16, 1955, ch 145, § 1, 69 Stat. 138.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES

References in text:

The "homestead laws", referred to in this section, are generally classified to *43 USCS §§ 161* et seq. For full classification, consult the USCS Tables volumes.

The "desert-land law", referred to in this section, is generally classified to *43 USCS §§ 321* et seq.

The "Act approved June seventeenth, nineteen hundred and two", referred to in this section, which was popularly known as the Reclamation Act, was Act June 17, 1902, ch 1093, 32 Stat. 388, and appeared as *43 USCS §§ 372* et seq., prior to the repeal of that portion of § 5 of such Act which formerly appeared as *43 USCS § 476* by Act Dec. 16, 1930, ch 14, § 1, 46 Stat. 1029, that portion of § 5 of such Act which formerly appeared as *43 USCS § 381* by Act Sept. 6, 1966, P.L. 89-554, § 8, 80 Stat. 1029, and § 9 of such Act, by Act June 25, 1910, ch 407, § 6, 36 Stat. 836. For full classification of such Act, consult USCS Tables volumes.

Amendments:

1955. Act June 16, 1955 in the sentence beginning "But all homestead entries…", deleted "no desert entry made under the provisions of this Act shall contain more than one hundred and sixty acres, and" before "all homestead entries made hereunder".

Other provisions:

Additional desert entries. Act June 16, 1955, ch 145, § 3, 69 Stat. 138, as amended by Act Aug. 14, 1958, P.L. 85-641, § 2, 72 Stat. 596, provided: "Any person who, prior to June 16, 1955, made a valid desert-land entry on lands subject to such Act of June 22, 1910 [*30 USCS §§ 83-85*], or of July 17, 1914 [*30 USCS §§ 121-123*], may, if otherwise qualified, make one additional entry, as a personal privilege, not assignable, upon one or more tracts of desert land subject to the provisions

of such Acts, as hereby amended, and section 7 of the Act entitled 'An Act to stop injury to the public grazing lands by preventing overgrazing and soil deterioration, to provide for their orderly use, improvement, and development to stabilize the livestock industry dependent upon the public range, and for other purposes', approved June 28, 1934, as amended (48 Stat. 1269, 1272; *43 U. S. C. 315f*). The additional land entered by any person pursuant to this section shall not, together with his original entry, exceed three hundred and twenty acres, and all the tracts included within the additional entry authorized by this section shall be sufficiently close to each other to be managed satisfactorily as an economic unit, as determined under rules and regulations issued by the Secretary of the Interior. Additional entries authorized by this section shall be subject to all the requirements of the desert-land law.".

Supplemental provisions. Act April 30, 1912, ch 99, 37 Stat. 105, which appears as *30 USCS § 90,* supplements this section by making provisions for the selection of coal lands by the several states, and for their sale under the laws providing for the sale of isolated or disconnected tracts of public lands.

NOTES:

Related Statutes & Rules:

This is section referred to in *30 USCS §§ 77, 82, 84, 85, 90, 541c.*

Alabama, coal lands opened to agricultural entry subsequent to 1912, *30 USCS § 77.*

Interpretive Notes and Decisions:

1. Generally 2. Relationship with other laws 3. Persons entitled to surface patent 4. Misrepresentation

1. Generally

Term "coal," as used in Coal Lands Acts of 1909 (*30 USCS § 81*) and 1910 (*30 USCS §§ 83-85*), does not encompass coalbed methane gas. *AMOCO Prod. Co. v Southern Ute Indian Tribe (1999) 526 US 865, 144 L Ed 2d 22, 119 S Ct 1719, 99 CDOS 4331, 99 Daily Journal DAR 5523, 1999 Colo J C A R 3279, 29 ELR 21274, 142 OGR 437, 12 FLW Fed S 301.*

In view of predecessor to *30 USCS § 83,* land department is without authority to issue patent without reservation of underlying coal. *Proctor v Painter (1926, CA9 Wash) 15 F2d 974.*

2. Relationship with other laws

Homestead entry of mineral lands, though subject to cancelation by United States, so far segregates land from public domain and makes it so far private as to withdraw it from the operation of 20 Stat 88 (predecessor to *16 USCS § 604*) authorizing any citizen to enter upon public lands, being mineral lands open to mineral entry, in order to cut timber therefrom for mining purposes. *Bunker Hill & Sullivan Mining & Concentrating Co. v United States (1913) 226 US 548, 57 L Ed 345, 33 S Ct 138.*

3. Persons entitled to surface patent

Only homestead entrymen acting in good faith are entitled to surface patent for coal lands. *Christie v. Great Northern R. Co. (1922, CA9 Wash) 284 F 702.*

4. Misrepresentation

Representation that homestead patent without mineral reservation can be obtained is equivalent to representation that land has not been withdrawn from general entry or classified as coal or mineral land and is representation of fact and may form basis of fraud as defense to note given in pursuance thereof. *Pieh v. Flitton (1927) 170 Minn 29, 211 NW 964.*

Indian Reorganization Act

June 18, 1934, Indian Reorganization Act

Chapter 576 – An Act To conserve and develop Indian lands and resources; to extend to Indians the right to form business and other organizations; to establish a credit system for Indians; to grant certain rights of home rule to Indians; to provide for vocational education for Indians; and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That hereafter no land of any Indian reservation, created or set apart by treaty or agreement with the Indians, Act of Congress, Executive order, purchase, or otherwise, shall be allotted in severalty to any Indian.

Sec. 2. The existing periods of trust placed upon any Indian lands and any restriction on alienation thereof are hereby extended and continued until otherwise directed by Congress.

Sec. 3. The Secretary of the Interior, if he shall find it to be in the public interest, is hereby authorized to restore to tribal ownership the remaining surplus lands of any Indian reservation heretofore opened, or authorized to be opened, to sale, or any other form of disposal by Presidential proclamation, or by any of the public-land laws of the United States: Provided, however, That valid rights or claims of any persons to any lands so withdrawn existing on the date of the withdrawal shall not be affected by this Act: Provided further, That this section shall not apply to lands within any reclamation project heretofore authorized in any Indian reservation: Provided further, that the order of the Department of the Interior signed, dated, and approved by honorable Ray Lyman Wilbur, as Secretary of the Interior, on October 28, 1932, temporarily withdrawing lands of the Papago Indian Reservation in Arizona from all forms of mineral entry or claim under the public land mining laws, is hereby revoked and rescinded, and the lands of the said Papago Indian Reservation are hereby restored to exploration and location, under the existing mining laws of the United States, in accordance with the express terms and provisions declared and set forth in the Executive orders establishing said Papago Indian Reservation: Provided further, That damages shall be paid to the Papago Tribe for loss of any improvements on any land located for mining in such a sum as may be determined by the Secretary of the Interior but not to exceed the cost of said improvements: Provided further, That a yearly rental not to exceed five cents per acre shall be paid to the Papago Tribe for loss of the use or occupancy of any land withdrawn by the requirements of mining operations, and payments derived from damages or rentals shall be deposited in the Treasury of the United States to the credit of the Papago Tribe: Provided further, That in the event any person or persons, partnership, corporation, or association, desires a mineral patent, according to the mining laws of the United States, he or they shall first deposit in the Treasury of the United States to the credit of the Papago Tribe the sum of $1.00 per acre in lieu of annual rental, as hereinbefore provided, to compensate for the loss or occupancy of the lands withdrawn by the requirements of mining operations: Provided further, that patentee shall also pay into the Treasury of the United States to the credit of the Papago tribe damages for the loss of improvements not heretofore paid in such a sum as may be determined by the Secretary of the Interior, but not to exceed the cost thereof; the payment of $1.00 per acre for surface use to be refunded to patentee in the event that patent is not acquired.

Nothing herein contained shall restrict the granting or use of permits for easements or rights-of-way; or ingress or egress over the lands for all proper and lawful purposes; and nothing contained herein, except as expressly provided, shall be construed as authority for the Secretary of the Interior, or any other person, to issue or promulgate a rule or regulation in conflict with the Executive order of February 1, 1917, creating the Papago Indian reservation in Arizona or

the Act of February 21, 1931 (46 Stat. 1202).

Sec. 4. Except as herein provided, no sale, devise, gift, exchange or other transfer of restricted Indian lands or of shares in the assets of any Indian tribe or corporation hereunder, shall be made or approved; Provided, however, That such lands or interests may, with the approval of the Secretary of the Interior, be sold, devised, or otherwise transferred to the Indian tribe in which the lands or shares are located or from which the shares were derived or to a successor corporation; and in all instances such lands or interests shall descend or be devised, in accordance with the then existing laws of the State, or Federal laws where applicable, in which said lands are located or in which the subject matter of the corporation is located, to any member of such tribe or of such corporation or any heirs of such member: Provided further, That the Secretary of the Interior may authorize voluntary exchanges of lands of equal value and the voluntary exchange of shares of equal value whenever such exchange, I hi judgment, is expedient and beneficial for or compatible with the proper consolidation of Indian lands and for the benefit of cooperative organizations.

Sec. 5. The Secretary of the Interior is hereby authorized, in his discretion, to acquire through purchase, relinquishment, gift, exchange, or assignment, any interest in lands, water rights or surface rights to lands, within or without existing reservation, including trust or otherwise restricted allotments whether the allottee be living or deceased, for the purpose of providing land for Indians.

For the acquisition of such lands, interests in lands, water rights, and surface rights, and for expenses incident to such acquisition, there is hereby authorized to be appropriated, out of any funds in the Treasury not otherwise appropriated, a sum not to exceed $2,000,000 in any one fiscal year: Provided, That no part of such funds shall be used to acquire additional land outside of the exterior boundaries of Navajo Indian Reservation for the Navajo Indians in Arizona and New Mexico, in the event that the proposed Navajo boundary extension measures now pending in congress and embodied in the bills (S. 2531 and H.R. 8982) to define the exterior boundaries of the Navajo Indian Reservation in new Mexico and for other purposes, or similar legislation, become law.

The unexpended balances of any appropriations made pursuant to this section shall remain available until expended.

Title to any lands or rights acquired pursuant to this Act shall be taken in the name of the United States in trust for the Indian tribe or individual Indian for which the land is acquired, and such lands or rights shall be exempt from State and local taxation.

Sec. 6. The Secretary of the Interior is directed to make rules and regulations for the operation and management of Indian forestry units on the principle of sustained-yield management, to restrict the number of livestock grazed on Indian range units to the estimated carrying capacity of such ranges, and to promulgate such other rules and regulations as may be necessary to protect the range from deterioration, to prevent soil erosion, to assure full utilization of the range, and like purposes.

Sec. 7. The Secretary of the Interior is hereby authorized to proclaim new Indian reservations on lands acquired pursuant to any authority conferred by this Act, or to add such lands to existing reservations: Provided, That lands added to existing reservation shall be designated for the exclusive use of Indians entitled by enrollment or by tribal membership to residence at such reservations.

Sec. 8. Nothing contained in this Act shall be construed to relate to Indian holdings of allotments or homesteads upon the public domain outside of the geographic boundaries of any Indian reservation now existing or established hereafter.

Sec. 9. There is hereby authorized to be appropriated, out of any funds in the Treasury not otherwise appropriated, such sums as may be necessary, but not to exceed $250,000 in any fiscal year, to be expended at the order of the Secretary of the Interior, in defraying the expenses of

organizing Indian chartered corporations or other organizations created under this Act.

Sec. 10. There is hereby authorized to be appropriated, out of any funds in the Treasury not otherwise appropriated, the sum of $10,000,000 to be established as a revolving fund from which the Secretary of the Interior, under such rules and regulations as he may prescribe, may make loans to Indian chartered corporations for the purpose of promoting the economic development of such tribes and of their members, and may defray the expenses of administering such loans. Repayment of amounts loaned under this authorization shall be credited to the revolving fund and shall be available for the purposes for which the fund is established. A report shall be made annually to Congress of transactions under this authorization.

Sec. 11. There is hereby authorized to be appropriated, out of any funds in the United States Treasury not otherwise appropriated, a sum not to exceed $250,000 annually, together with any unexpended balances of previous appropriations made pursuant to this section, for loans to Indians for the payment of tuition and other expenses in recognized vocational and trade schools: Provided, that not more than $50,000 of such sum shall be available for loans to Indian students in high schools and colleges. Such loans shall be reimbursable under rules established by the Commissioner of Indian Affairs.

Sec. 12. The Secretary of the Interior is directed to establish standards of health, age, character, experience, knowledge, and ability for Indians who may be appointed, without regard to civil-service laws, to the various positions maintained, now or hereafter, by the Indian Office, in the administration of functions or services affecting any Indian tribe. Such qualified Indians shall hereafter have the preference to appointment to vacancies in any such positions.

Sec. 13. The provisions of this Act shall not apply to any of the Territories, colonies, or insular possession of the United States, except that sections 9, 10, 11, 12, and 16, shall apply to the Territory of Alaska: Provided, That Sections 2, 4, 7, 16, 17, and 18 of this Act shall to apply to the following-named Indian tribes, the members of such Indian tribes, together with members of other tribes affiliated with such named tribes located in the state of Oklahoma, as follows: Cheyenne, Arapaho, Apache, Comanche, Kiowa, Caddo, Delaware, Wichita, Osage, Kaw, Otoe, Tonkawa, Pawnee, Ponca, Shawnee, Ottawa, Quapaw, Seneca, Wyandotte, Iowa, Sac and Fox, Kickapoo, Pottawatomi, Cherokee, Chickasaw, Choctaw, Creek, and Seminole. Section 4 of this Act shall not apply to the Indians of the Klamath Reservation in Oregon.

Sec. 14. The Secretary of the Interior is hereby directed to continue the allowance of the articles enumerated in section 17 of the Act of March 2, 1889 (23 Stat. L. 894), or their commuted cash value under the Act of June 10, 1896 (29 Stat. L. 894), to all Sioux Indians who would be eligible, but for the provisions of this Act, to receive allotments of lands in severalty under section 19 of the Act of May 29, 1908 (25 (35) Stat. L. 451), or under any prior Act, and who have the prescribed status of the head of a family or single person over the age of eighteen years, and his approval shall be final and conclusive, claims therefor to be paid as formerly from the permanent appropriation made by said section 17 and carried on the books of the Treasury for this purpose. No person shall receive in his own right more than one allowance of the benefits, and application must be made and approved during the lifetime of the allottee or the right shall lapse. Such benefits shall continue to be paid upon such reservation until such time as the lands available therein for allotment at the time of the passage of this Act would have been exhausted by the award to each person receiving such benefits of an allotment of eighty acres of such lands.

Sec. 15. Nothing in this Act shall be construed to impair or prejudice any claim or suit of any Indian tribe against the United States. It is hereby declared to be in the intent of Congress that no expenditures for the benefit of Indians made out of appropriations authorized by this Act shall be considered

as offsets in any suit brought to recover upon any claim of such Indians against the United States.

Sec. 16. Any Indian tribe, or tribes, residing on the same reservation, shall have the right to organize for its common welfare, and may adopt an appropriate constitution and bylaws, which shall become effective when ratified by a majority vote of the adult members of the tribe, or of the adult Indians residing on such reservation, as the case may be, at a special election authorized and called by the Secretary of the Interior under such rules and regulations as he may prescribe. Such constitution and bylaws when ratified as aforesaid and approved by the Secretary of the Interior shall be revocable by an election open to the same voters and conducted in the same manner as hereinabove provided. Amendments to the constitution and bylaws may be ratified and approved by the Secretary in the same manner as the original constitution and bylaws.

In addition to all powers vested in any Indian tribe or tribal council by existing law, the constitution adopted by said tribe shall also vest in such tribe or its tribal council the following rights and powers: To employ legal counsel, the choice of counsel and fixing of fees to be subject to the approval of the Secretary of the Interior; to prevent the sale, disposition, lease, or encumbrance of tribal lands, interests in lands, or other tribal assets without the consent of the tribe; and to negotiate with the Federal, State, and local Governments. The Secretary of the Interior shall advise such tribe or its tribal counsel of all appropriation estimates or Federal projects for the benefit of the tribe prior to the submission of such estimates to the Bureau of the Budget and Congress.

Sec. 17. The Secretary of the Interior may, upon petition by at least one-third of the adult Indians, issue a charter of incorporation to such tribe: Provided, that such charter shall not become operative until ratified at a special election by a majority vote of the adult Indians living on the reservation. Such charter may convey to the incorporated tribe the power to purchase, take by gift, or bequest, or otherwise, own, hold, manage, operate, and dispose of property of every description, real and personal, including the power to purchase restricted Indian lands and to issue in exchange therefore interests in corporate property, and such further powers as may be incidental to the conduct of corporate business, not inconsistent with law, but no authority shall be granted to sell, mortgage, or lease for a period exceeding ten years any of the land included in the limits of the reservation. Any charter so issued shall not be revoked or surrendered except by Act of Congress.

Sec. 18. This Act shall not apply to any reservation wherein a majority of the adult Indians, voting at a special election duly called by the Secretary of the Interior, shall vote against its application. It shall be the duty of the Secretary of the Interior, within one year after the passage and approval of this Act, to call such an election, which election shall be held by secret ballot upon thirty days' notice.

Sec. 19. The term "Indian" as used in this Act shall include all persons of Indian descent who are members of any recognized Indian tribe now under Federal jurisdiction, and all persons who are descendants of such members who were, on June 1, 1934, residing within the present boundaries of any Indian reservation, and shall further include all other persons of one-half or more Indian blood. For the purposes of this Act, Eskimos and other aboriginal peoples of Alaska shall be considered Indians. The term "tribe" wherever used in this Act shall be construed to refer to any Indian tribe, organized band, pueblo, or the Indians residing on one reservation. The words "adult Indians" wherever used in this Act shall be construed to refer to Indians who have attained the age of twenty-one years.

Approved, June 18, 1934
(Commonly referred to as the Wheeler-Howard Act)

Stock Raising Homestead Act

43 USCS § 299

§ 299. Reservation of coal and mineral rights

(a) General provisions. All entries made and patents issued under the provisions of this Act shall be subject to and contain a reservation to the United States of all the coal and other minerals in the lands so entered and patented, together with the right to prospect for, mine, and remove the same. The coal and other mineral deposits in such lands shall be subject to disposal by the United States in accordance with the provisions of the coal and mineral land laws in force at the time of such disposal. Any person qualified to locate and enter the coal or other mineral deposits, or having the right to mine and remove the same under the laws of the United States, shall have the right at all times to enter upon the lands entered or patented, as provided by this Act, for the purpose of prospecting for coal or other mineral therein, provided he shall not injure, damage, or destroy the permanent improvements of the entryman or patentee, and shall be liable to and shall compensate the entryman or patentee for all damages to the crops on such lands by reason of such prospecting. Any person who has acquired from the United States the coal or other mineral deposits in any such land, or the right to mine and remove the same, may re-enter and occupy so much of the surface thereof as may be required for all purposes reasonably incident to the mining or removal of the coal or other minerals, first, upon securing the written consent or waiver of the homestead entryman or patentee; second, upon payment of the damages to crops or other tangible improvements to the owner thereof, where agreement may be had as to the amount thereof; or, third, in lieu of either of the foregoing provisions, upon the execution of a good and sufficient bond or undertaking to the United States for the use and benefit of the entryman or owner of the land, to secure the payment of such damages to the crops or tangible improvements of the entryman or owner, as may be determined and fixed in an action brought upon the bond or undertaking in a court of competent jurisdiction against the principal and sureties thereon, such bond or undertaking to be in form and in accordance with rules and regulations prescribed by the Secretary of the Interior and to be filed with and approved by the register and receiver of the local land office of the district wherein the land is situate, subject to appeal to the Commissioner of the General Land Office: *Provided,* That all patents issued for the coal or other mineral deposits herein reserved shall contain appropriate notations declaring them to be subject to the provisions of this Act with reference to the disposition, occupancy, and use of the land as permitted to an entryman under this Act.

(b) Exploration; location of mining claims; notices.

(1) In general.

(A) Notwithstanding subsection (a) and any other provision of law to the contrary, after the effective date of this subsection no person other than the surface owner may enter lands subject to this Act to explore for, or to locate, a mining claim on such lands without—

(i) filing a notice of intention to locate a mining claim pursuant to paragraph **(2);** and

(ii) providing notice to the surface owner pursuant to paragraph (3).

(B) Any person who has complied with the requirements referred to in subparagraph (A) may, during the authorized exploration period, in order to locate a mining claim, enter lands subject to this Act to undertake mineral activities related to exploration that cause no more than a minimal disturbance of surface resources and do not involve the use of mechanized earthmoving equipment, explosives, the construction of roads,

drill pads, or the use of toxic or hazardous materials.

(C) The authorized exploration period referred to in subparagraph (B) shall begin 30 days after notice is provided under paragraph (3) with respect to lands subject to such notice and shall end with the expiration of the 90-day period referred to in paragraph (2)(A) or any extension provided under paragraph (2).

(2) Notice of intention to locate a mining claim. Any person seeking to locate a mining claim on lands subject to this Act in order to engage in the mineral activities relating to exploration referred to under paragraph (1)(B) shall file with the Secretary of the Interior a notice of intention to locate a claim on the lands concerned. The notice shall be in such form as the Secretary shall prescribe. The notice shall contain the name and mailing address of the person filing the notice and a legal description of the lands to which the notice applies. The legal description shall be based on the public land survey or on such other description as is sufficient to permit the Secretary to record the notice on the land status records of the Secretary. Whenever any person has filed a notice under this paragraph with respect to any lands, during the 90-day period following the date of such filing, or any extension thereof pursuant to this paragraph, no other person (including the surface owner) may—

(A) file such a notice with respect to any portions of such lands;

(B) explore for minerals or locate a mining claim on any portion of such lands; or

(C) file an application to acquire any interest in any portion of such lands pursuant to section 209 of the Federal Land Policy and Management Act of 1976 (*43 U.S.C. 1719*).

If, within such 90-day period, the person who filed a notice under this paragraph files a plan of operations with the Secretary pursuant to subsection (f), such 90-day period shall be extended until the approval or disapproval of the plan by the Secretary pursuant to subsection (f).

(3) Notice to surface owner. Any person who has filed a notice of intention to locate a mining claim under paragraph (2) for any lands subject to this Act shall provide written notice of such filing, by registered or certified mail with return receipt, to the surface owner (as evidenced by local tax records) of the lands covered by the notice under paragraph (2). The notice shall be provided at least 30 days before entering such lands and shall contain each of the following:

(A) A brief description of the proposed mineral activities.

(B) A map and legal description of the lands to be subject to mineral exploration.

(C) The name, address and phone number of the person managing such activities.

(D) A statement of the dates on which such activities will take place.

(4) Acreage limitations. The total acreage covered at any time by notices of intention to locate a mining claim under paragraph (2) filed by any person and by affiliates of such person may not exceed 6,400 acres of lands subject to this Act in any one State and 1,280 acres of such lands for a single surface owner. For purposes of this paragraph, the term "affiliate" means, with respect to any person, any other person which controls, is controlled by, or is under common control with, such person.

(c) Consent. Notwithstanding subsection (a) and any other provision of law, after the effective date of this subsection no person may engage in the conduct of mineral activities (other than those relating to exploration referred to in subsection (b)(1)B)) on a mining claim located on lands subject to this Act without the written consent of the surface owner thereof unless the Secretary has authorized the conduct of such activities under subsection (d).

(d) Authorized mineral activities. The Secretary shall authorize a person to conduct mineral activities (other than those relating to exploration referred to in subsection (b)(1)(B)) on lands subject to this Act without the consent of the surface owner thereof if such person complies with the requirements of subsections (e) and (f).

(e) Bond.

(1) Before the Secretary may authorize any person to conduct mineral activities the Secretary shall require such person to post a bond or other financial guarantee in an amount to insure the completion of reclamation pursuant to this Act. Such bond or other financial guarantee shall ensure—

(A) payment to the surface owner, after the completion of such mineral activities and reclamation, compensation for any permanent damages to crops and tangible improvements of the surface owner that resulted from mineral activities; and

(B) payment to the surface owner of compensation for any permanent loss of income of the surface owner due to loss or impairment of grazing, or other uses of the land by the surface owner to the extent that reclamation required by the plan of operations would not permit such uses to continue at the level existing prior to the commencement of mineral activities.

(2) In determining the bond amount to cover permanent loss of income under paragraph (1)(B), the Secretary shall consider, where appropriate, the potential loss of value due to the estimated permanent reduction in utilization of the land.

(f) Plan or [of] operations.

(1) Before the Secretary may authorize any person to conduct mineral activities on lands subject to this Act, the Secretary shall require such person to submit a plan of operations. Such plan shall include procedures for—

(A) the minimization of damages to crops and tangible improvements of the surface owner;

(B) the minimization of disruption to grazing or other uses of the land by the surface owner; and

(C) payment of a fee for the use of surface during mineral activities equivalent to the loss of income to the ranch operation as established pursuant to subsection (g).

(2) The Secretary shall provide a copy of the proposed plan of operations to the surface owner at least 45 days prior to the date the Secretary makes a determination as to whether such plan complies with the requirements of this subsection. During such 45-day period the surface owner may submit comments and recommend modifications to the proposed plan of operations to the Secretary.

(3) (A) The Secretary shall, within 60 days of receipt of the plan, approve the plan of operations if it complies with the requirements of this Act, including each of the following:

(i) The proposed plan of operations is complete and accurate.

(ii) The person submitting the proposed plan of operations has demonstrated that all other applicable Federal and State requirements have been met.

(B) The Secretary shall notify the person submitting a plan of operations of any modifications to such plan required to bring it into compliance with the requirements of this Act. If the person submitting the plan agrees to modify such plan in a manner acceptable to the Secretary, the Secretary shall approve the plan as modified. In the event no

agreement can be reached on the modifications to the plan which, in the opinion of the Secretary, will bring such plan into compliance with the requirements of this Act, then the Secretary shall disapprove the plan and notify both the surface owner and the person submitting the plan of the decision.

(C) The 60-day period referred to in subparagraph (A) may be extended by the Secretary where additional time is required to comply with other applicable requirements of law.

(D) The Secretary shall suspend or revoke a plan of operation whenever the Secretary determines, on the Secretary's own motion or on a motion made by the surface owner, that the person conducting mineral activities is in substantial noncompliance with the terms and conditions of an approved plan of operations and has failed to remedy a violation after notice from the Secretary within the time required by the Secretary.

(4) Final approval of a plan of operations under this subsection shall be conditioned upon compliance with subsections (e) and (g).

(g) Fee. The fee referred to in subsection (f)(1) shall be—

(1) paid to the surface owner by the person submitting the plan of operations;

(2) paid in advance of any mineral activities or at such other time or times as may be agreed to by the surface owner and the person conducting such activities; and

(3) established by the Secretary taking into account the acreage involved and the degree of potential disruption to existing surface uses during mineral activities (including the loss of income to the surface owner and such surface owner's operations due to the loss or impairment of existing surface uses for the duration of the mineral activities), except that such fee shall not exceed the fair market value for the surface of the land.

(h) Reclamation. Lands affected by mineral activities under a plan of operations approved pursuant to subsection (f)(3) shall be reclaimed, to the maximum extent practicable, to a condition capable of supporting the uses to which such lands were capable of supporting prior to surface disturbance. Reclamation shall proceed as contemporaneously as practicable with the conduct of mineral activities.

(i) State law.

(1) Nothing in this Act shall be construed as affecting any reclamation, bonding, inspection, enforcement, air or water quality standard or requirement of any State law or regulation which may be applicable to mineral activities on lands subject to this Act to the extent that such law or regulation is not inconsistent with this title.

(2) Nothing in this Act shall be construed as affecting in any way the right of any person to enforce or protect, under applicable law, the interest of such person in water resources affected by mineral activities.

(j) Inspections. Should any surface owner of land subject to this Act have reason to believe that they are or may be adversely affected by mineral activities due to any violation of the terms and conditions of a plan of operations approved under subsection (f), such surface owner may request an inspection of such lands. The Secretary shall determine within 10 days of the receipt of the request whether the request states a reason to believe that a violation exists, except in the event the surface owner alleges and provides reason to believe that an imminent danger exists, the 10-day period shall be waived and the inspection conducted immediately. When an inspection is conducted under this paragraph, the Secretary shall notify the surface owner and such surface owner shall be allowed to accompany the inspector on the inspection.

(k) Damages for failure to comply.

(1) Whenever the surface owner of any land subject to this Act has suffered any permanent damages to crops or tangible improvements of the surface owner, or any permanent loss of income due to loss or impairment of grazing, or other uses of the land by the surface owner, if such damages or loss result from—

(A) Any mineral activity undertaken without the consent of the surface owner under subsection (c) or an authorization by the Secretary under subsection (d); or

(B) The failure of the person conducting mineral activities to remedy to the satisfaction of the Secretary any substantial noncompliance with the terms and conditions of a plan under subsection (f). The surface owner may bring an action in the appropriate United States district court for, and the court may award, double damages plus costs for willful misconduct or gross negligence.

(2) The surface owner of any land subject to this Act may also bring an action in the appropriate United States district court for double damages plus costs for willful misconduct or gross negligence against any person undertaking any mineral activities on lands subject to this Act in violation of any requirement of subsection (b).

(3) Any double damages plus costs awarded by the court under this subsection shall be reduced by the amount of any compensation which the surface owner has received (or is eligible to receive) pursuant to the bond or financial guarantee required under subsection (e).

(l) Payment of financial guarantee. The surface owner of any land subject to this Act may petition the Secretary for payment of all or any portion of a bond or other financial guarantee required under subsection (e) as compensation for any permanent damages to crops and tangible improvements of the surface owner, or any permanent loss of income due to loss or impairment of grazing, or other uses of the land by the surface owner. Pursuant to such a petition, the Secretary may use such bond or other guarantee to provide compensation to the surface owner for such damages and to insure the required reclamation.

(m) Bond release. The Secretary shall release the bond or other financial guarantee required under subsection (e) upon the successful completion of all requirements pursuant to a plan of operations approved under subsection (f).

(n) Conveyance to surface owner. The Secretary shall take such actions as may be necessary to simplify the procedures which must be complied with by surface owners of lands subject to this Act who apply to the Secretary to obtain title to interests in such lands owned by the United States.

(o) Definitions. For the purposes of subsections (b) through (n)—

(1) The term "mineral activities" means any activity for, related to or incidental to mineral exploration, mining, and beneficiation activities for any locatable mineral on a mining claim. When used with respect to this term—

(A) the term "exploration" means those techniques employed to locate the presence of a locatable mineral deposit and to establish its nature, position, size, shape, grade and value;

(B) The term "mining" means the processes employed for the extraction of a locatable mineral from the earth; and

(C) The term "beneficiation" means the crushing and grinding of locatable mineral ore and such processes are employed to free the mineral from the other constituents, including but not necessarily limited to, physical and chemical separation techniques.

(2) The term "mining claim" means a claim located under the general mining laws of the United States (which generally comprise *30 U.S.C. chapters 2,* 12A, and 16 [*30 USCS §§ 21* et seq., *541* et seq., *621* et seq.], and *sections 161* and *162*) subject to the terms and conditions of subsections (b) through (p) of this section.

(3) The term "tangible improvements" includes agricultural, residential and commercial improvements, including improvements made by residential subdividers.

(p) Minerals covered. Subsections (b) through (o) of this section apply only to minerals not subject to disposition under the —

(1) Mineral Leasing Act (*30 U.S.C. 181* and following);

(2) Geothermal Steam Act of 1970 (*30 U.S.C. 100* and following); or

(3) Act of July 31, 1947, commonly known as the Materials Act of 1947 (*30 U.S.C. 601* and following).

HISTORY:
(Dec. 29, 1916, ch 9, § 9, 39 Stat. 864.)
(As amended April 16, 1993, P.L. 103-23, § 1(a), (b), 107 Stat. 60.)

HISTORY; ANCILLARY LAWS AND DIRECTIVES
References in text:
"This Act", referred to in this section, is Act Dec. 29, 1916, ch 9, 39 Stat. 863, which appears generally as *43 USCS §§ 291* et seq. For full classification of this Act, consult USCS Tables volumes.

As used in subsec. (i)(1) of this section, "this title" probably refers to Act Dec. 29, 1916, ch 9, 39 Stat. 863, which appears generally as *43 USCS §§ 291* et seq. For full classification of this Act, consult USCS Tables volumes.

Amendments:
1993. Act April 16, 1993 (effective 180 days after enactment, as provided by § 1(c) of such Act) designated the existing text as subsec. (a), added the subsection heading; and added subsecs. (b)-(p).

Transfer of functions:
The offices of register and receiver were consolidated in a single office of register of the district land office by Acts Oct. 28, 1921, ch 114, § 1, 42 Stat. 208 and Mar. 3, 1925, ch 462, 43 Stat. 1145. The offices of register of the district land office and Commissioner of the General Land Office were abolished and their functions transferred to the Secretary of the Interior by Reorg. Plan No. 3 of 1946, § 403, effective July 16, 1946, ***11 Fed. Reg. 7876,*** 60 Stat. 1100, located at *43 USCS § 1* note.

The functions of most officers, agencies and employees of the Department of the Interior were transferred to the Secretary of the Interior, who was vested with the power to delegate these functions, by Reorg. Plan No. 3 of 1950, §§ 1, 2, effective May 24, 1950, *15 Fed. Reg. 3174,* 64 Stat. 1262, located at *43 USCS § 1451* note.

Other provisions:
Effective date of April 16, 1993 amendments. Act April 16, 1993, P.L. 103-23, § 1(c), 107 Stat. 65, provides: "The amendments made by this Act [designating the existing text of this section as subsec. (a) and adding subsecs. (b) through (p)] shall take effect 180 days after the date of enactment.".

Regulations implementing April 16, 1993 amendments. Act April 16, 1993, P.L. 103-23, § 1(d), 107 Stat. 65, provides: "The Secretary of the Interior shall issue final regulations to implement

the amendments made by this Act [designating the existing text of this section as subsec. (a) and adding subsecs. (b) through (p)] not later than the effective date of this Act. Failure to promulgate these regulations by reason of any appeal or judicial review shall not delay the effective date as specified in paragraph (c) [note to this section].".

Report to Congress on foreign mineral interest. Act April 16, 1993, P.L. 103-23, § 2, 107 Stat. 65, provides:

"**(a)** Report. The Secretary of the Interior is directed to submit a report to the Congress within 2 years after the date of enactment of this Act on the acquisition of mineral interests made after the date of enactment of this Act by foreign firms on lands subject to the Act of December 29, 1916, entitled 'An Act to provide for stock-raising homesteads, and for other purposes' (*43 U.S.C. 299*).

"**(b)** Definition. For purposes of this section, the term 'foreign firm' means a business entity that conducts business operations in the United States and is 51 percent or more owned and controlled by a foreign person or entity.".

NOTES:

Code of Federal Regulations:

Bureau of Land Management, Department of the Interior—Mining claims under the general mining laws, 43 CFR Part 3800.

Bureau of Land Management, Department of the Interior—Lands and minerals subject to location, 43 CFR Part 3810.

Bureau of Land Management, Secretary of the Interior—Special procedures for locating and recording mining claims and tunnel sites on Stockraising Homestead Act (SRHA) lands, 43 CFR Part 3838.

Related Statutes & Rules:

Surface resources, *30 USCS §§ 601* et seq.

Geothermal steam and associated geothermal resources, *30 USCS §§ 1001* et seq.

This section referred to in *43 USCS § 315*.

Research Guide:

Am Jur:

53A Am Jur 2d, Mines and Minerals §§ 8, 32, 420.

Forms:

15C Am Jur Legal Forms 2d (2000), Real Estate Sales § 219:229.

Annotations:

Judicial review of Interior Department decisions affecting claims of mineral interests in public lands. 5 ALR Fed 566.

Construction and application of Geothermal Steam Act of 1970 (*30 USCS §§ 1001* et seq.) pertaining to leases of government lands for development of geothermal steam resources. 40 ALR Fed 814.

Clay, sand, or gravel as "minerals" within deed, lease, or license. 95 ALR2d 843.

Law Review Articles:

Carpenter, Severed Minerals as a Deterrent to Land Development. *51 Denver L J 1, 1974.*

Geothermal Resources: Mineral Reservation in Land Patents Issued Under Stock Raising Homestead Act of 1916 Held to Include Geothermal Resources. *13 Gonzaga L Rev 240,* Fall, 1977.

Mall, Federal Mineral Reservations. *10 Land & Water L Rev 1, 1975.*

Tanke and Putz, Jr., Use of Lands Patented Under the Stock-Raising Homestead Act for Construction and Operation of Geothermal Power Plants. 14 Natural Resources Lawyer 725, 1982.

Reeves, The Meaning of the Word "Minerals". 54 North Dakota L Rev 333, 1978.

Ritchie, Title Aspects of Mineral Development on Public Lands. 18 Rocky Mountain Mineral L Institute 471, 1973.

Interpretive Notes and Decisions:

1. Generally 2. Construction, generally 2.5. —Jurisdiction of Department of Interior 3. —Construction of reservations in patents 4. Relation to other laws and regulations 5. Particular reserved resources 6. Parties 7. Mineral trespass

1. Generally

For substance to be mineral reserved under 43 USCS § 299, it must not only be mineral within one or more familiar definitions of that term, but also type of mineral Congress intended to reserve to United States; mineral reservation in § 299 includes substances that are mineral in character (that is, inorganic), that can be removed from soil, that can be used for commercial purposes, and that there is no reason to suppose were intended to be included in surface estate. Watt v Western Nuclear, Inc. (1983) 462 US 36, 76 L Ed 2d 400, 103 S Ct 2218, 13 ELR 20849, 79 OGR 596.

In general, geothermal resources are minerals under *Stock Raising Homestead Act. Rosette Inc. v United States (2002, CA10 NM) 277 F3d 1222, 154 OGR 381,* cert den *(2002) 537 US 878, 154 L Ed 2d 133, 123 S Ct 77.*

Reservation by government in original patent of right-of-way for canal or ditch, and right to prospect and mine any minerals was not encumbrance. *Wilson v Calvert (1951, DC Ariz) 96 F Supp 597.*

Amount of bond to be furnished by locator of mining claim asserting rights under mining laws does not depend upon his proposed activities upon patented land, but rather upon possible damages based upon value of crops and surface improvements of surface owner within mining claims, as required under Stock-Raising Homestead Act, *43 USCS § 299,* and grazing value of land, as required by Act of June 21, 1949, *30 USCS § 54. J. Maurer, Jr. et al. (1974) 81 ID 139.*

Section 9 of Stock-Raising Homestead Act *(43 USCS § 299)* contemplates Department of Interior retaining continuing jurisdiction and administration of mineral deposits reserved by that Act. *Western Nuclear, Inc. (1978) 85 ID 129.*

2. Construction, generally

Mineral reservation in *43 USCS § 299* is to be read broadly in light of agricultural purpose of grant itself, and in light of Congress's equally clear purpose to retain subsurface resources, particularly

sources of energy, for separate dispositions and development in public interest. *United States v Union Oil Co. (1977, CA9 Cal) 549 F2d 1271, 7 ELR 20214, 55 OGR 425, 40* ALR Fed 799, cert den *(1977) 434 US 930, 54 L Ed 2d 291, 98 S Ct 418,* reh den *(1978) 435 US 911, 55 L Ed 2d 502, 98 S Ct 1462.*

Surface damage payments made in advance to taxpayers by mineral lessee were not compensation for damages under *43 USCS § 299,* and thus were not entitled to capital gains treatment, where there was no evidence of unreasonable, excessive, or negligent use of land by oil and gas operation lessees, nor was there proof that oil and gas companies' activities on land were not customary or incidental to their operations. *Gilbertz v United States (1987, CA10 Wyo) 808 F2d 1374, 87-1 USTC P 9116, 91 OGR 426, 59 AFTR 2d 424.*

In order to properly construe reservation in *43 USCS § 299,* intent of Congress at time of enactment of Act and under circumstances then present must be ascertained. *United States v Union Oil Co. (1973, ND Cal) 369 F Supp 1289, 4 ELR 20559, 47 OGR 287,* revd on other grounds (1977, CA9 Cal) *549 F2d 1271, 7 ELR 20214, 55 OGR 425, 40* ALR Fed 799, cert den *(1977) 434 US 930, 54 L Ed 2d 291, 98 S Ct 418,* reh den *(1978) 435 US 911, 55 L Ed 2d 502, 98 S Ct 1462.*

2.5. Department of Interior Jurisdiction

Bureau of Land Management had authority to issue trespass notice for alleged trespass on supposed mineral interests retained by United States under patent issued pursuant to Stock-Raising Homestead Act of 1916 *(43 USCS §§ 291* et seq.), as provision of *43 USCS § 299* that reserved mineral interests are "subject to disposal by the United States in accordance with the provisions of the coal and mineral laws in force at the time of such disposal" contemplates that Department of Interior should have continuing jurisdiction over, and administration of, mineral interests reserved to United States under § 299 until such time as interests are disposed of. *Western Nuclear v Andrus (1981, CA10 Wyo) 664 F2d 234, 73 OGR 382,* revd *(1983) 462 US 36, 76 L Ed 2d 400, 103 S Ct 2218, 13 ELR 20849, 79 OGR 596.*

3. Construction of reservations in patents

Ejusdem generis rule of construction may not be invoked to exclude gravel from scope of reservation of "all the coal and other minerals" in patents issued under Stock-Raising Homestead Act *(43 USCS § 299)* because this rule of construction can only be effectively applied where there is series of specific terms which define class so that one may construe a general term by reference to that class; as to gravel, interpretations of mineral reservation in patents issued by United States under Stock-Raising Homestead Act *(43 USCS § 299)* must be consistent with established rules that land grants are to be construed favorably to government, that nothing passes except what is conveyed in clear language, and that if there are doubts they resolved for government, not against it; in determining what gravel is included in mineral reservation in patent issued under § 299 interpretation of reservation must take into account intended use for which land was conveyed and those uses which government intended to reserve. *Western Nuclear, Inc. (1978) 85 ID 129.*

4. Relation to other laws and regulations

30 USCS § 611 is by its terms limited to locability of claims under mining laws and does not limit scope of mineral reservation under *43 USCS § 299. Watt v Western Nuclear, Inc. (1983) 462 US 36, 76 L Ed 2d 400, 103 S Ct 2218, 13 ELR 20849, 79 OGR 596.*

Mineral estates reserved under *43 USCS § 299* constitute lands belonging to United States within meaning of *30 USCS § 22. Watt v Western Nuclear, Inc. (1983) 462 US 36, 76 L Ed 2d 400, 103 S Ct 2218, 13 ELR 20849, 79 OGR 596.*

30 USCS § 1020(b) of Geothermal Steam Act does not call for judicial determination each time federal government believes well might be reserved, but rather calls for early judicial determination on question of whether geothermal rights are or are not included in mineral reservation under *43*

USCS § 299 of *Stock Raising Homestead Act. Rosette Inc. v United States (2002, CA10 NM) 277 F3d 1222, 154 OGR 381,* cert den *(2002) 537 US 878, 154 L Ed 2d 133, 123 S Ct 77.*

43 USCS § 299 was not intended to provide patentee an exclusive remedy against mining claimant and *43 CFR § 4.450-1,* which provides for private contest among land claimants, does not conflict in any way with rights and remedies set forth in *43 USCS § 299. Thomas v Morton (1976, DC Ariz) 408 F Supp 1361,* affd (1977, CA9 Ariz) *552 F2d 871.*

Declaration in Surface Resources Act *(30 USCS § 611)* that no deposit of common varieties of gravel shall be deemed valuable mineral deposit within meaning of mining laws, was not intended to operate as conveyance, to holders of patents, of any minerals reserved under Stock-Raising Homestead Act *(43 USCS § 299);* under *43 CFR § 9239.0-7* which defines trespass, term "public lands" includes mineral deposits reserved under Stock-Raising Homestead Act *(43 USCS § 299). Western Nuclear, Inc. (1978) 85 ID 129.*

5. Particular reserved resources

Gravel is mineral reserved to United States in lands patented under *43 USCS § 299;* mineral reservation in § 299 includes substances that are mineral in character (that is, inorganic), that can be removed from soil, that can be used for commercial purposes, and that there is no reason to suppose were intended to be included in surface estate. *Watt v Western Nuclear, Inc. (1983) 462 US 36, 76 L Ed 2d 400, 103 S Ct 2218, 13 ELR 20849, 79 OGR 596.*

Reservation of coal and "other minerals" includes oil and gas. *Skeen v Lynch (1931, CA10 NM) 48 F2d 1044,* cert den *(1931) 284 US 633, 76 L Ed 539, 52 S Ct 17.*

Mineral reservation in patents issued under Stock Raising Homestead Act, which reserved to United States in *43 USCS § 299,* all coal and other minerals in lands entered and patented, reserved to United States geothermal resources underlying patented lands even though there was no specific reference to geothermal steam and associated resources in language of Stock Raising Homestead Act or in its legislative history, since Congress was not aware of geothermal power at time of enactment and had no specific intention either to reserve geothermal resources or to pass title to them. *United States v Union Oil Co. (1977, CA9 Cal) 549 F2d 1271, 7 ELR 20214, 55 OGR 425, 40* ALR Fed 799, cert den *(1977) 434 US 930, 54 L Ed 2d 291, 98 S Ct 418,* reh den *(1978) 435 US 911, 55 L Ed 2d 502, 98 S Ct 1462.*

In general, geothermal resources are "minerals" under *Stock Raising Homestead Act. Rosette Inc. v United States (2002, CA10 NM) 277 F3d 1222, 154 OGR 381,* cert den *(2002) 537 US 878, 154 L Ed 2d 133, 123 S Ct 77.*

Geothermal electric generating plant siting rights in lands patented under Stock-Raising Homestead Act of 1916 *(43 USCS § 299)* were reserved to United States. *Occidental Geothermal, Inc. v Simmons (1982, ND Cal) 543 F Supp 870, 74 OGR 12.*

Commercial greenhouse operator is enjoined from utilizing geothermal resources located deeper than 1,000 feet, where precedent supports broad interpretation of mineral reservation contained in *43 USCS § 299* and land patents issued thereunder, because reservation of "all coal and other minerals" is found to include geothermal steam and associate geothermal resources. *Rosette, Inc. v United States (1999, DC NM) 64 F Supp 2d 1116,* affd (2002, CA10 NM) *277 F3d 1222, 154 OGR 381,* cert den *(2002) 537 US 878, 154 L Ed 2d 133, 123 S Ct 77.*

Gravel in valuable deposit is mineral reserved to United States in patent issued under Stock-Raising Homestead Act *(43 USCS § 299). Western Nuclear, Inc. (1978) 85 ID 129.*

The term "mineral" reserved to the United States in *43 USCS §§ 291* and *299* does not include material, best described as country rock adaptable for use, and used in, the construction of highways, taken in its exposed state from land owners' property by the Highway Commission and therefore landowners are entitled to compensation for such material. *State ex rel. State Highway Comm'n v Tru-*

jillo (1971) 82 NM 694, 487 P2d 122, 41 OGR 198 (ovrld in part by *Champlin Petroleum Co. v Lyman (1985) 103 NM 407, 708 P2d 319, 87 OGR 593)* and (ovrld as stated in *Bogle Farms v Baca (1996) 1996 NMSC 51, 122 NM 422, 925 P2d 1184)*.

6. Parties

United States was indispensable party to suit by patentee of stock-raising lands under patent reserving coal and other minerals to quiet title to oil and gas as against prospectors under government permits. *Skeen v Lynch (1931, CA10 NM) 48 F2d 1044,* cert den *(1931) 284 US 633, 76 L Ed 539, 52 S Ct 17*.

Locator of mining claim, who has not obtained patent, but has performed required assessment work, is entitled to quiet his title as against patentee of stock-raising homestead, as against contention that he cannot collaterally attack patent. *Brown v Luddy (1932) 121 Cal App 494, 9 P2d 326*.

7. Mineral trespass

When Bureau of Land Management has appraised damages for mineral trespass under 43 CFR Part 9230, hearing will not be ordered and appraisal will not be disturbed in absence of offer of specific substantial evidence that determination is incorrect. *Western Nuclear, Inc. (1978) 85 ID 129*.

Appendix 5

Sample Easement Provisions

If landowner owns all mineral rights, and the conservation easement intends to prohibit all mineral development:

Mineral Rights. As of the date of this Deed, Grantor owns all mineral rights located on, under, or in the Property or otherwise associated with the Property. Grantor shall not transfer, lease or otherwise separate any mineral rights, currently owned or later acquired, from the surface of the Property. Grantor shall not permit any filling, excavating, dredging, mining, drilling, or exploration for or extraction of any minerals, hydrocarbons, coalbed methane, soils, sand, gravel, rock or other materials on, under, or in the Property by any method.

If landowner owns all mineral rights, and the conservation easement intends to allow limited and localized extraction of minerals:

Mineral Rights. As of the date of this Deed, Grantor owns all mineral rights located on, under, or in the Property or otherwise associated with the Property. Grantor shall not permit any filling, excavating, dredging, mining, drilling, or exploration for or extraction of any minerals, hydrocarbons, coalbed methane, soils, sand, gravel, rock or other materials on, under, or in the Property (the "Minerals") by any surface mining method. Notwithstanding the foregoing, Grantor reserves the right to explore for or extract Minerals if such exploration or extraction is accomplished as follows:

(a) The method of exploration or extraction is not a surface mining method and has a limited, localized impact on the Property that is not irremediably destructive of, and will not substantially diminish or impair the Conservation Values of the Property;

(b) Prior to the commencement of any exploration or extraction of Minerals, Grantor shall submit a plan (Mineral Development Plan) to Grantee that sets forth the proposed activity, including the method of exploration or extraction, the areas proposed to be disturbed, the impacts of the activity and disturbance, including impacts to the Conservation Values, proposed mitigation of impacts, impacts to water resources on and off the Property, proposed reclamation, proposed penalties for failure to comply with the proposed Mineral Development Plan, and the length of time proposed for the activity. Grantee may approve or deny the Mineral Development Plan in its discretion.

(c) In addition to such other measures Grantee may reasonably require to protect the Conservation Values, the Mineral Development Plan shall specifically provide for the following:

(i) Concealing all facilities or otherwise locating them to be compatible with existing topography and landscape to the greatest practicable extent;

(ii) Minimizing construction of any new roadways and locating and constructing such roadways so as to minimize adverse effects of the roadways on the Conservation Values of the Property; and

(iii) Restoring any altered physical features of the land, including drill sites and roadways, to their original state and reclaiming the restored topography with appropriate vegetation.

Grantor shall not transfer, lease or otherwise separate any mineral rights, currently owned or later acquired, from the surface of the Property, unless such instrument (e.g. oil and gas leases, surface use agreements, no-surface occupancy agreements, or other instruments conveying or leasing mineral interests) references this Deed, summarizes the Conservation Values and the provisions of this Section, and specifically requires compliance with all terms and conditions of this Deed. Prior to the

execution of any such instrument, Grantor shall provide a copy to Grantee for Grantee's review and approval in accordance with this Deed.

Grantor may retain all proceeds Grantor receives from the exploration or extraction of the Minerals.

If landowner does not own all mineral rights:

Mineral Rights. As of the date of this Deed, Grantor owns only a portion of the mineral rights located on, under, or in the Property or otherwise associated with the Property. For this reason, a mineral assessment report dated _____ has been completed by_____, in compliance with Section 170(h) of the Internal Revenue Code and related Treasury Regulations, which report concludes that as of the date of this Deed, the probability of surface mining occurring on the Property is so remote as to be negligible. Grantor's current or future ownership of any mineral rights associated with the Property shall be subject to the provisions of this Section. With regard to mineral rights currently owned by or any mineral rights later acquired by Grantor, Grantor shall not permit any filling, excavating, dredging, mining, drilling, or exploration for or extraction of any minerals, hydrocarbons, coalbed methane, soils, sand, gravel, rock or other materials on, under, or in the Property (the "Minerals") by any surface mining method. Notwithstanding the foregoing, Grantor reserves the right to explore for or extract Minerals if such exploration or extraction is accomplished as follows:

(a) The method of exploration or extraction is not a surface mining method and has a limited, localized impact on the Property that is not irremediably destructive of, and will not substantially diminish or impair the Conservation Values of the Property;

(b) Prior to the commencement of any exploration or extraction of Minerals, Grantor shall submit a plan ("Mineral Development Plan") to Grantee that sets forth the proposed activity, including the method of exploration or extraction, the areas proposed to be disturbed, the impacts of the activity and disturbance, including impacts to the Conservation Values, proposed mitigation of impacts, impacts to water resources on and off the Property, proposed reclamation, proposed penalties for failure to comply with the proposed Mineral Development Plan, and the length of time proposed for the activity. Grantee may approve or deny the Mineral Development Plan in its discretion.

(c) In addition to such other measures as Grantee may reasonably require to protect the Conservation Values, the Mineral Development Plan shall specifically provide for the following:

(i) Concealing all facilities or otherwise locating them to be compatible with existing topography and landscape to the greatest practicable extent;

(ii) Minimizing construction of any new roadways and locating and constructing such roadways so as to minimize adverse effects of the roadways on the Conservation Values of the Property; and

(iii) Restoring any altered physical features of the land, including drill sites and roadways, to their original state and reclaiming the restored topography with appropriate vegetation.

With regard to the mineral rights currently owned by or any mineral rights later acquired by Grantor, Grantor shall not transfer, lease or otherwise separate any mineral rights from the surface of the Property, unless such instrument (e.g. oil and gas leases, surface use agreements, no-surface occupancy agreements, or other instruments conveying or leasing mineral interests) references this Deed, summarizes the Conservation Values and the provisions of this Section, and specifically requires compliance with all terms and conditions of this Deed. Prior to the execution of any such instrument, Grantor shall provide a copy to Grantee for Grantee's review and approval in accordance with this Deed.

Because Grantor does not own all of the mineral rights located on, under, or in the Property or otherwise associated with the Property, one or more third parties have the right to explore for or extract the Minerals, subject only to Grantor's rights under Colorado law as an owner of the surface and any rights of Grantee under Colorado law as holders of a conservation easement interest. With respect to the mineral rights owned by third parties, Grantor agrees not to enter into any lease, surface use agreement, no-surface occupancy agreement, or other instrument granting approval for the exploration or extraction of the Minerals, without first submitting such instrument to Grantee for its review and written approval, which Grantee may grant or deny in its discretion. Grantee reserves the right, in its sole discretion, to be a party to or a third party beneficiary of any Mineral Agreement.

Grantor may retain all proceeds Grantor receives from the exploration or extraction of the Minerals.

If landowner has already entered into a lease or surface use agreement, insert the following clause:

Grantor has entered into a [title and date of lease or surface use agreement] ("Agreement") with [name of third party] that grants to [name of third party] the right to access the Property to explore for and extract [type of mineral] from the Property. Grantee agrees that the Agreement does not provide for exploration or extraction of Minerals in a manner that is irremediably destructive of or will significantly impair or interfere with the Conservation Values of the Property. Grantor shall not amend the Agreement without the prior written approval of Grantee, which Grantee may grant or deny in its discretion.

If existing mineral development has occurred on the Property, in addition to the language above regarding a lease or surface use agreement, insert the following clause:

As of the date of this Deed, there is [describe mineral facility] on the Property. The location of the [facility] is shown on Exhibit __ if this Deed. Grantor and Grantee agree that the [facility] is not irremediably destructive of the Conservation Values and does not significantly impair or interfere with the Conservation Values of the Property.

Other Sample Easement Provisions

Easement holder as surface owner; notice provisions

5.5 The right to be recognized as an owner in the interest of the Property embodied by this Easement, and therefore to receive notification from and join Grantor as a party to any leases, surface use agreements, damage agreements or rights-of-way that may be proposed, granted or required hereafter as a result of condemnation or eminent domain proceedings, or for the purpose of exploring for or extracting oil, natural gas or other mineral resources on or below the Property. The Trust's rights in participating in or defending the Property from mineral development agreements are more specifically described in Section 7.2 herein.

Restrictions on development when landowner owns all mineral rights

7.2.A. Minerals. [FOR 100% OWNERS:] At the time of granting the Easement, Grantor owns all of the mineral rights associated with the Property. Grantor shall not lease, sever or separate the ownership of such rights from the Property, nor explore for, develop, mine or otherwise extract any minerals, coal, peat, sand, gravel, rock, soil, geo-thermal resources, oil, oil shale, natural gas or other hydrocarbons from on or below the surface of the Property, **[IF PERMITTED:]** except that Grantor may lease to a third party **[, and upon notification to the Trust, retain from the future sale of the Property or separately convey to a third party,]** the right to explore for and extract

oil and natural gas only from below the surface of the Property in a manner that is temporary and reclaimable and otherwise consistent with the meaning, provisions, and terms of Section 170(h) of the Code and Section 1.170A-14(g) of the Treasury Regulations **[AND provided that any related surface use agreements or leases that may affect the surface of the Property entered into hereafter incorporate the Trust and recognize, incorporate, and are subordinate to this Easement as described below]:**

Restrictions on development when landowner does not own all mineral rights

[OR FOR LESS THAN 100% OWNERS:] At the time of granting the Easement, Grantor owns only a portion [or none] of the mineral rights associated with the Property. For this reason, a mineral remoteness letter dated _____ has been completed by _____ in compliance with Section 170(h) of the Internal Revenue Code and 1.170A-14(g) of the Treasury Regulations, a copy of which is on file with the Trust. Grantor shall not **[IF THEY OWN MORE THAN 0%: lease, sever or separate Grantor's portion of mineral rights from the Property, nor]** explore for, develop, mine or otherwise extract any minerals, coal, peat, sand, gravel, rock, soil, geo-thermal resources, oil, oil shale, natural gas or other hydrocarbons from on or below the surface of the Property, except that Grantor may lease to a third party **[, or upon notification to the Trust, retain from the future sale of the Property or separately convey to a third party,]** the right to explore for and extract oil and natural gas only from below the surface of the Property in a manner that is temporary and reclaimable and otherwise consistent with the meaning, provisions, and terms of Section 170(h) of the Code and Section 1.170A-14(g) of the Treasury Regulations **[AND provided that any related surface use agreements or leases that may affect the surface of the Property entered into hereafter incorporate the Trust to the degree possible and recognize, incorporate, and are subordinate to this Easement to the degree possible, as described below];**

Requirements for future agreements regarding oil and gas development on the property

Future Oil and Gas Agreements. **[IF PERMITTED OR REQUIRED:]** Grantor shall incorporate this Easement by reference and summarize the Property's Conservation Values in any and all future oil and gas leases, surface use agreements, or no-surface occupancy agreements to which Grantor is party that affect the Property **[IF THEY RESERVE RIGHT TO SEVER: or address mineral rights separated hereafter]**, which leases and agreements shall be subordinate to this Deed. The Trust shall have the same legal rights as Grantor to influence and control impacts to the surface of the Property from mineral development by third parties who **[IF THEY OWN 100% and RESERVE RIGHT TO SEVER: [After the date of this Easement grant may]** own some or all of the mineral rights located beneath the Property. Such rights shall include, but not be limited to, right to take whatever legal action the Trust deems necessary in order to respond to proposals to develop oil, gas, and other minerals from beneath the Property, including bringing judicial or administrative actions;

Grantor and the Trust agree that they shall not unilaterally enter into oil and gas leases, surface use agreements, right-of-way agreements or **no-surface occupancy agreements** with a third party regarding any oil, gas and mineral development of the Property, but instead Grantor and the Trust shall be required participants to any such contract. Grantor agrees that upon cessation of exploration or extraction activities, Grantor shall ensure that the impacted site is recontoured, revegetated, and restored in a manner consistent with the surface use or other pertinent agreement, as approved by the Trust.

Acknowledgement of existing leases and provisions for amendments

Current Oil and Gas Leases. [Detail and leases on the property, number of wells, pipelines and provisions. For Example:] The Parties acknowledge that there is ___ active oil and gas lease on the Property, originally conveyed to _____ in 1989 (recorded in Garfield County as Reception No. _____), and currently owned by **EnCana Oil & Gas (USA), Inc.** As part of such lease, there is one natural gas well on the Property located on a ___ ( ) acre well pad, and an **underground gas pipeline,** described in the Right-of-Way Agreement recorded in the real property records of Garfield County as Reception No. _____. These leases, **agreements and rights-of-way** precede this Easement in time and right, but shall not be amended or extended without Trust's approval or inclusion as a party to any such amendments or extensions that may involve the Grantor and potentially impact the surface of the Property pursuant to Section 5.5 and Subsection 7.2.F.i, above.

Appendix 6

Sample Conservation-Friendly Surface Use Agreement

This Surface Use Agreement ("Agreement") is made and entered into this ___ day of _____, 20__ by and between _____ Oil and Gas Company ("OPERATOR"), _____ ("Surface Owner"), and _____ ("Land Trust"). Operator, Surface Owner, and Land Trust may be referred to herein individually as a "Party", or collectively as the "Parties".

Recitals

Surface Owner owns the surface estate of that certain tract of land more particularly described on Exhibit "A" attached hereto, being a portion of Section_____ , Township _____, Range_____, _____ County, State of Colorado (hereinafter referred to as the "Property");

Surface ownership of the Property is subject to the rights of the oil and gas leasehold estate, all or a portion of which is owned or leased by OPERATOR;

The Property is subject to a Deed of Conservation Easement, recorded on _____, 20__ in the _____ County Recorder's Office, and as holder of said Easement Deed, Land Trust is granted certain interests in the surface estate and therefore joins Surface Owner in the terms of this Agreement;

OPERATOR has the right to develop its oil and gas leasehold estate by drilling wells on the Property ("the "Wells"); and

This Agreement sets forth the Parties' rights and obligations regarding the relationship between the development of the Property by Surface Owner and OPERATOR'S operation and development of its oil and gas leasehold estate, such rights and obligations to be binding upon the Parties' successors and assigns.

Agreement

In consideration of the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Well Locations. OPERATOR agrees to limit its oil and gas operations conducted in connection with the Wells, including, but not limited to, lease operating activities, drilling, workovers, deepenings, fracturing, and production, to the two (2) pad sites identified on Exhibit "B-1" as the "Oil and Gas Operations Areas". OPERATOR shall have the right to drill future Wells within the Oil and Gas Operations Areas, including the drilling of horizontal and directional wells that produce from and drain the Property as well as lands which are pooled or communitized with the Property from the identified locations.

The disturbed area for each pad site shall not exceed 4 acres of land identified on Exhibits "B-2" and "B-3" as the Oil and Gas Operations Areas while drilling and will be downsized to the 0.5 acre parcels identified on Exhibit "B-4" as the Production Facilities Areas. No Oil and Gas Operations Areas shall be located within 1000 feet of any residence, house or barn on the property without the prior written consent of Surface Owner. No housing or dwelling unit, including temporary units, shall be constructed or placed on Surface Owner's land by OPERATOR.

OPERATOR shall at all times keep the well sites and the road rights-of-way safe and in good order, free of noxious weeds, litter and debris, and shall suppress dust and manage noxious weeds (with natural springs and water features on the property, non-toxic weed management must be used) upon reasonable demand therefore by the Surface Owner. All fences installed by OPERATOR shall be kept clean and in good repair. OPERATOR shall not permit the release or discharge of any toxic or hazardous chemicals or wastes on Surface Owner's land. OPERATOR shall remove only the minimum

amount of vegetation necessary for the construction of roads and facilities. Topsoil shall be conserved during excavation and reused as cover on disturbed areas to facilitate regrowth of vegetation.

Well sites and facilities will be located and constructed to limit visibility from Interstate and from the nearby county roads and public lands.

2. Production Facilities. OPERATOR shall have the right to locate, build, repair and maintain tanks, separators, dehydrators, compressors and other equipment reasonably appropriate or convenient for the operation and production of any Well, only within the Production Facilities Areas identified on Exhibit "B-4".

3. Access. Surface Owner shall provide to OPERATOR all necessary non-exclusive easements for access to Oil and Gas Operations Areas, of which shall not run in perpetuity, but for the duration of the productive life of the Wells which such easements provide access. Whenever possible, new road construction shall be avoided, but where necessary such access shall not exceed twenty-two feet (22') in width. OPERATOR shall provide Surface Owner with a plat showing location, length, and purpose of all proposed access routes prior to their use, construction or improvement. OPERATOR is assured of uninterruped access to all of the Oil and Gas Operations Areas, subject to the control and autonomy of Surface Owner to provide such uninterrupted access. No access road may be closed to OPERATOR until an acceptable replacement or alternate route is available for use.

OPERATOR agrees to place appropriate signs on roads or other rights of way designating them as "Private", to adequately direct its own traffic, and to assist Surface Owner in the control of the use of any such roads or rights of way by unauthorized persons. No employee or agent of OPERATOR shall bring alcohol, illegal drugs, firearms, fishing gear or animals upon the premises at any time. All gates on the rights of way to the Wells may be locked by the Surface Owner and if so locked, keys shall be provided to OPERATOR, its employees, contractors or sub-contractors; provided, however, that during the 30-day period beginning with commencement of preparation for drilling of a well, gates to areas necessary for such activities do not have to be locked, but OPERATOR agrees to take all reasonable steps to keep areas served by such gates as secure as possible. In the event of production from any of the Wells, OPERATOR, as soon as commercially prudent and reasonable, shall bring the condition of the roads up to oil field road standards and shall at all times maintain roads in good condition. Drainage of such roads and rights of way shall be at the sole cost, risk and expense of OPERATOR.

No fences, cattle guards or other improvements of Surface Owner shall be cut or damaged by OPERATOR except with prior written consent of Surface Owner and payments of additional damages as appropriate or other safeguards to protect the rights and properties of Surface Owner. Cattle guards used by OPERATOR are to be installed in a workmanlike manner with properly braced corners. The fence at point of installation shall be properly stretched and maintained by OPERATOR so as to prevent migration of livestock. OPERATOR shall keep cattle guards and fences installed by OPERATOR clean and in good repair during operations.

OPERATOR further agrees that it shall maintain all roads used by it in a good state of repair and said maintenance shall be at the sole risk, cost and expense of OPERATOR. Nothing under this Agreement shall be construed or interpreted as preventing Surface Owner from allowing third parties the use of such road or roads or preventing Surface Owner from charging any third party for the use of said road at Surface Owner's sole risk and subject to maintenance participation with OPERATOR by such third party users on a proportionate basis. OPERATOR shall keep and maintain all roads used exclusively by OPERATOR including all culverts and gates in good condition and repair.

4. Flowlines and Pipelines. Surface Owner shall provide to OPERATOR all necessary non-exclusive easements to lay flowlines or pipelines to service the Wells on the Property, at the locations shown on Exhibit B or such other locations as mutually agreed upon by the Parties. Said easements shall not run in perpetuity, but for the duration of the productive life of the Wells to or from which such easements provide flowline or pipeline access. All flowlines and pipeline easements shall be no greater than thirty feet (30') in width during construction and no greater than twenty feet (20') in width thereafter. OPERATOR shall locate its flowlines or pipelines at a depth of no less than forty-eight inches (48") below the surface. The construction and burying of flowlines and pipelines shall be at the sole cost and expense of OPERATOR or its product purchaser. Should Surface Owner request any relocation of flowlines or pipelines hereinafter constructed on the Property, and OPERATOR agrees to such relocation, Surface Owner shall be responsible for any and all relocation costs. Surface Owner shall maintain a minimum of forty-eight inches (48") of cover over flowlines and pipelines during any of Surface Owner's operations or construction activities, except while actually installing crossing utility lines.

Subject to this Agreement, Surface Owner shall be entitled to reserve the right to grant easements to utility and/or gas gathering companies and Surface Owner and such utility/gas gathering companies shall be entitled to install, erect or construct and maintain within or across the flowline or pipeline easement areas gas flowlines, gas pipelines, utility lines for water, sewer, telephone, cable, electric and other utilities as may be reasonably required for development of the Property. Surface Owner agrees that, and will notify each utility company that, except in cases of emergency, OPERATOR must be contacted at least ten (10) business days prior to commencement of any trenching or digging activities within its easement area and that during the installation, maintenance and use of the utilities in any such easement area, Surface Owner or such utility company will not unreasonably interfere with OPERATOR'S use and operation of its flowlines or pipelines. Surface Owner agrees that all utilities that are placed in the ground shall be placed horizontally a minimum of five feet (5") from the centerline of OPERATOR'S flowlines or pipelines, and any such utilities that cross a OPERATOR easement area shall be placed with a minimum clearance of 12 inches (12") between OPERATOR'S flowlines or pipelines and such utility lines. Surface Owner shall maintain a minimum of forty-eight inches (48") and not more than seventy-two inches (72") of cover over all flowlines and pipelines during any of Surface Owner's operations or construction activities.

5. Impact Mitigation and Improvements. OPERATOR may install and maintain, at its sole cost and expense, fences, gates and locks if required by the Colorado Oil and Gas Conservation Commission ("COGCC") or if reasonably requested by Surface Owner for the security of any Wells or production facilities. Specifically, OPERATOR will fence the Oil and Gas Operations Area if requested by Surface Owner. In addition, OPERATOR shall paint its production facilities, including wellhead guards, with paint that is approved by the COGCC and blends with the surrounding scenery (earth tones).

No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of two inches deep, the soil shall be deemed too wet to adequately support construction equipment.

OPERATOR shall consult with and/or follow Best Management Practices (BMPs) established by the Colorado Division of Wildlife for minimizing adverse impacts to wildlife resources. Compliance with BMPs could include additional fencing, seasonal drilling and completion operations, and further noise, lighting, and aesthetic controls not specifically required in this Agreement.

6. Drilling, Completion and Production Operations. OPERATOR shall provide notice to Surface Owner of all its operations in connection with its activities on the property including but not limited to road, well pad, and flowline construction, reworking, fracturing, deepening or other operation on

its Wells in accordance with the rules and regulations of the COGCC except as further described in Section 7 below. OPERATOR shall endeavor to diligently pursue any drilling operations to minimize the total time period and to avoid rig relocations or startup during the course of drilling. .

OPERATOR'S drilling operations shall be limited to closed-circulation system and flaring is prohibited. Where the use of combustion and flow-back devices is necessary, units shall be properly insulated to suppress noise.

OPERATOR shall take all necessary steps required by state and federal regulations to prevent its operations from (i) polluting the waters of reservoirs, springs, ditches, streams, or existing wells located on the Property, (ii) damaging crops, timber, or pastures, (iii) harming or injuring wildlife or livestock, and (iv) emitting noise or light considered harmful or intrusive to surrounding human or wildlife habitants.

Limitations. This Agreement does not grant OPERATOR the right to use of the Property for any use other than those specified herein. OPERATOR's use and access is limited to the pads, easements, and roads identified in this Agreement. Parking, equipment storage, and staging during rig moves, no matter how temporary, outside of the boundaries of these areas are prohibited.

8. Surface Owner Notices.

a. Notice of Construction Activities. Surface Owner shall provide OPERATOR with ten (10) days written notice prior to commencement of any dirtwork, grading or other surface construction activities on the Property. If requested by OPERATOR, Surface Owner shall meet with OPERATOR representatives at the Property to locate existing flowlines, gathering lines or pipelines and to coordinate proposed surface construction activities with current and prospective oil and gas operations.

b. Notice to Future Surface Owners. Surface Owner shall furnish all buyers of the Property from Surface Owner with a copy of this Agreement and a plat or map showing the Oil and Gas Operation Areas and shall provide notice that:

i. There may be ongoing oil and gas operations and production in the Oil and Gas Operation Areas on the surface of the Property;

ii. That the Wells are likely to be drilled and oil and gas operations and production from the Oil and Gas Operation Areas will affect the surface of the Property;

iii. Heavy equipment will be used by oil and gas interest owners from time to time for oil and gas drilling and production operations; and

iv. Future purchasers of all or a portion of the Property, as successors in interest to Surface Owner, will be bound by the covenants, waivers and obligations in this Agreement.

9. Representations. Each Party represents that it has the full right and authority to enter into this Agreement. OPERATOR does not represent that it has rights to settle matters for all of the mineral owners in the Property, and this Agreement shall only apply to and bind operations conducted by OPERATOR and its successors and assigns on the Property, in the capacity of operator.

10. Waiver of Rights. OPERATOR waives its rights pursuant to its oil and gas leasehold interest to explore for, drill and produce the oil and gas on the Property or for ingress and egress to any Oil and Gas Operations Areas under the oil and gas lease between Surface Owner and OPERATOR (as successor to the original Lessee under the lease), but, as specifically provided in this Agreement, OPERATOR shall have the right to conduct operations on the Property.

11. Successors and Assigns. The terms, covenants and conditions hereof shall be running with the land and binding upon and shall inure to the benefit of the Parties and their respective heirs, devises, executors, administrators, successors and assigns.

12. Termination. Notwithstanding anything contained herein to the contrary, this Agreement shall automatically terminate and be of no further force and effect at such time that OPERATOR'S oil and gas leasehold estate expires or is terminated, and OPERATOR has plugged and abandoned all Wells owned all or in part by OPERATOR and complied with the requirements of all applicable oil and gas leases pertaining to removal of equipment, reclamation, cleanup, COGCC rules and regulations and all other applicable provisions of the oil and gas leases and existing laws and regulations. At the request of Surface Owner, OPERATOR shall execute and record such documents or instruments as Surface Owner shall reasonably request in order to evidence such termination, of which are intended to include termination of any and all easements granted hereunder.

13. Notices. Any notice or other communication required or permitted under this Agreement shall be sufficient if deposited in U.S. Mail, postage prepaid, or sent via expedited delivery service, with proof of delivery, addressed as follows:

If to OPERATOR:
OPERATOR O&G Company

If to Surface Owner:

Any Party may, by written notice so delivered to the other Parties, change the address or individual to which delivery shall thereafter be made.

14. Recording. A memorandum only of this Agreement shall be recorded by OPERATOR, which shall provide Surface Owner with a copy showing the recording information as soon as practicable thereafter.

15. Springs & Water. OPERATOR hereby acknowledges the existence of various natural potable freshwater springs located on the Property (the "Springs") and agrees to inspect and/or test the productive capacity on a gallon per minute basis (or similar capacity measurement) and potability of the water produced therefrom prior to commencement of drilling operations on the Property to establish a basis for productive capacity and potability of the water produced by the Springs. OPERATOR shall re-inspect and retest the productive capacity on a gallon per minute basis (or similar capacity measurement) and portability of the water produced from the Springs at no more than three-month (90-day) intervals during drilling and completion operations; no more than 6-month (120-day) intervals for a minimum of two (2) years following drilling and completion operations, whether or not production ensues; no more than 12-month (365-day) intervals during production from any well on the Property; and upon abandonment at no more than 12-month (365-day) intervals for a minimum of three (3) years to insure similar capacity and potability found prior to commencement of drilling operations.

In the event there is any decrease in water productivity from the Springs, or potability of the water therein, during drilling operations or within one (3) years after completion of drilling operations caused by drilling operations of OPERATOR, OPERATOR shall cause the productive capacity and/or potability of the Springs to return to at least the original productive capacity and potability as

inspected and/or tested by OPERATOR prior to commencement of drilling operations within thirty days of notification by Surface Owner, assuming all contractors needed to conduct such restoration of water productivity and/or potability are available within the said thirty (30) days. If damage caused by drilling operations to the Springs is irreversible, OPERATOR shall be liable for such damage, including but not limited to providing alternative water equal to or better than predrilling capacity and potability at OPERATOR'S sole risk and expense in perpetuity.

16. Water Rights. This agreement does not give Operator any right to use any water or water rights of Surface Owner, except as otherwise agreed.

17. Surface Damages. Prior to the commencement of any operations in the Oil and Gas Operations Areas as described on Exhibit "B", OPERATOR shall pay to Surface Owner a surface use fee as compensation for surface damages ("Location Fee(s)"), the sum of ___Dollars ($) for the construction of any and all pad sites and first well location on said pad site in the Oil and Gas Operations Area. Each Oil and Gas Operation Area shall be limited in size to a maximum of 4.0 acres. OPERATOR shall pay to Surface Owner additional Location Fees of _____Dollars ($) for each well subsequently drilled from each pad site whether directional, horizontal or vertical.

In addition OPERATOR shall also pay Surface owner ($) per yard for all access, flowline, and pipeline easements ("Easement Fee(s)"). In any instance in which one easement covers multiple uses (i.e. used for access and for flowline/pipeline) the Easement Fee shall cover all uses thereof. However, should OPERATOR locate additional facilities in the easement more than six (6) months after the completion of construction of the initial facility, then OPERATOR shall pay Surface Owner an additional disturbance and nuisance fee of __Dollars ($) per yard for each additional occurrence.

OPERATOR agrees promptly to pay Surface Owner for any and all demonstrable and/or documented loss or damage caused by OPERATOR to the property or livestock of Surface Owner or its tenants within thirty (30) days of documentation.

18.Reclamation. Location Fees and Easement Fees notwithstanding, OPERATOR shall be solely responsible for all reclamation required within the Oil and Gas Operations areas, access easements, and flowline & pipeline easements and specifically shall install a berm system around the Production Facilities. However, OPERATOR shall permit Surface Owner the opportunity to retain "as is" any portion of the access roads or surface facilities constructed by OPERATOR.

At any site where OPERATOR does not discover oil, gas or hydrocarbons of commercial quantity and determines it to be a "dry hole," OPERATOR shall within three (3) months restore and reseed said area after replacing topsoil to specifications not less than that of the Bureau of Land Management (BLM), Natural Resources Conservation Service (NRCS), and/or Forest Service (USFS). "Above ground" dry hole markers shall be installed when necessary unless otherwise agreed or required by law.

OPERATOR shall restore all disturbed areas (well site, pipelines, and other facilities) to their original grade and vegetation immediately following completion (weather permitting) of construction.

All disturbed areas shall be fenced to allow for effective revegetation if livestock are present. The Production Facilities shall remain fenced during production. The portion of the pad site to be reclaimed shall be returned to its original topography and vegetation planted and successfully established comparable to that existing prior to construction, as well as pipelines and all non-traveled portions of roadways.

All reseeding shall be done with suitable grasses selected by Surface Owner (For example: Fields shall be returned to grass or alfalfa, sagebrush/pinyon/juniper areas shall be planted in native grasses or as otherwise recommended by BLM, NRCS, and/or USFS.).

It shall be the duty of OPERATOR to insure that a growing ground cover is established upon the disturbed soils and OPERATOR shall reseed and water as necessary to accomplish that duty. It shall further be the duty of OPERATOR to inspect and control all noxious weeds as may become established within areas used or disturbed by OPERATOR, and those found to spread to other areas of Surface Owner's property. OPERATOR shall inspect disturbed areas at such times as Surface Owner shall reasonably request in order to determine the growth of ground cover and/or noxious weeds, and OPERATOR shall reseed ground cover and control noxious weeds from time to time to the extent necessary to accomplish its obligations hereunder. OPERATOR recognizes that this shall be a continuing obligation and OPERATOR shall reseed ground cover and/or control noxious weeds until areas disturbed by OPERATOR are returned to as good condition as existed prior to construction.

If any subsequent disturbance of surface areas outside the well site is undertaken at any time, the same reclamation and revegetation obligations shall apply.

Topsoil shall be stockpiled and replaced in conformance with COGCC Regulations. Any rocks excavated by OPERATOR that are too large (over 100 pounds each) to be incorporated into fill or reclamation shall be stockpiled at a location designated by Surface Owner. Any useable timber, fencepost and firewood shall be stockpiled at mutually agree locations. All slash shall be disposed of off-site, unless otherwise agreed.

Foreign substances including gravel and unnecessary equipment shall be removed from each disturbed area.

UPON FINAL TERMINATION of operations on any portion of the Property, OPERATOR shall return roads (except permanent roads), rights of way, and sites, the use of which is to be terminated, to their original grade and vegetation. OPERATOR shall use water bars and such other measures as appropriate to prevent erosion and nonsource pollution. All surface restoration shall be accomplished to the satisfaction of Owner.

Within ninety (90) days following the abandonment of operations, all surface equipment and surface appurtenances, together with all foreign substances (including gravel), associated with such well and related gathering pipelines, not requested to remain by Owner, shall be removed by OPERATOR from the Property.

All disturbed areas shall be revegetated with seed and plant mixtures, as specified for revegetation after initial drilling.

All reclamation and revegetation, as to planting periods and seeding rates of grasses, shall, at minimum, comply with all requirements and stipulations for similar sites, as adopted or imposed by BLM, NRCS, or USFS as applicable.

19. Indemnity. OPERATOR SHALL BE SOLELY RESPONSIBLE FOR ALL RISKS AND LIABILITIES OF ANY KIND AND NATURE INCIDENT TO, OCCASIONED BY OR RESULTING IN ANY MANNER, DIRECTLY OR INDIRECTLY FROM OPERATOR'S OPERATIONS OR ACTIVITIES ON THE PROPERTY AND THAT OF ITS CONTRACTORS, EMPLOYEES, AGENTS AND ASSIGNS. OPERATOR SHALL PROTECT, INDEMNIFY, DEFEND AND HOLD SURFACE OWNER HARMLESS FROM ANY KIND AND CHARACTER OF DAMAGE, LOSS, EXPENSE, CLAIM OR CAUSE OF ACTION ASSERTED BY OR ARISING IN FAVOR OF ANY PERSON OR ENTITY ON ACCOUNT OF PERSONAL INJURY, DEATH OR PROPERTY DAMAGE GROWING OUT OF OR ATTRIBUTABLE TO THE OPERATIONS OR ACTIVITIES OF OPERATOR, ITS CONTRACTORS, EMPLOYEES, AGENTS AND ASSIGNS INCLUDING WITHOUT LIMITATION ANY ENVIRONMENTAL DAMAGE CLAIMS. OPERATOR SHALL KEEP THE PROPERTY FREE FROM ANY LIENS OF ANY CHARACTER RESULTING FROM OPERATOR'S OPERATIONS OR ACTIVITIES. OPERATOR AT ITS OWN EXPENSE SHALL DEFEND ANY SUIT OR ACTION BROUGHT AGAINST SURFACE OWNER BASED ON ANY ALLEGED INJURY, DEATH OR PROPERTY DAMAGE OR VIOLATION

OF RULE, REGULATION, ORDINANCE, STATUTE OR LAW ARISING OUT OF THE OPERATIONS OR ACTIVITIES OF OPERATOR, ITS CONTRACTORS, EMPLOYEES, AGENTS AND ASSIGNS AND PAY ALL DAMAGES, CLAIMS, COSTS AND EXPENSES, INCLUDING REASONABLE ATTORNEYS FEES INCURRED BY SURFACE OWNER IN CONNECTION THEREWITH OR IN ANY MANNER RESULTING THEREFROM. LIKEWISE, SURFACE OWNER AGREES TO INDEMNIFY AND HOLD OPERATOR HARMLESS FROM ANY AND ALL CLAIMS, ACTIONS, SUITS OR DAMAGES ARISING SOLELY FROM OPERATIONS OR ACTIVITIES ON THE PROPERTY CONDUCTED BY SURFACE OWNER, THEIR HEIRS, SUCCESSORS OR ASSIGNS.

20. Default. In the event of default by OPERATOR of any of the terms of this Agreement Surface Owner shall notify OPERATOR in writing, and OPERATOR shall have thirty (30) days after the date of such notification within which to cure such default. Waiver of any default shall not be deemed a waiver of subsequent defaults, but notice thereof shall be given by Surface Owner to OPERATOR as provided under this Agreement. In the event OPERATOR does not cure the default within the time specified, all of OPERATOR'S rights hereunder shall terminate.

21. Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Colorado, without reference to its conflict of laws provisions.

22. Entire Agreement. This Agreement sets forth the entire understanding among the Parties hereto regarding the matters addressed herein, and supersedes any previous communications, representations or agreement, whether oral or written. This Agreement shall not be amended, except by written document signed by all Parties.

23. Counterpart Execution. This Agreement may be executed in any number of counterparts each of which shall be deemed an original instrument but all of which together shall constitute one and the same instrument.

The Parties have executed this Agreement on this _____ day of _____, 20__ but for purposes is effective as of the day and year first above written.

OPERATOR O&G COMPANY

_____

By: _____

Its: _____

SURFACE OWNER(s)

_____ _____

LAND TRUST

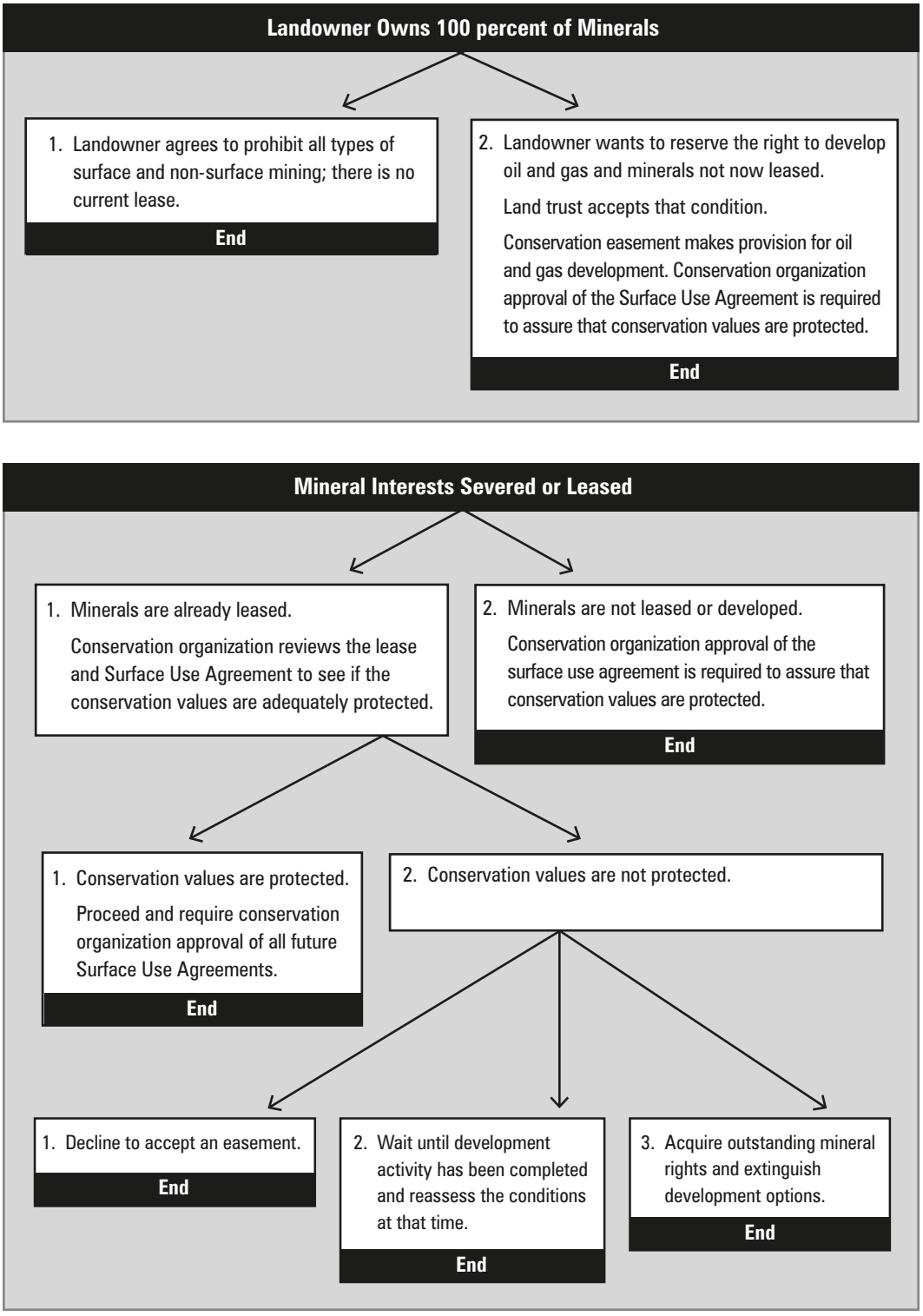
_____

_____

NOTARY PAGES

Appendix 7

Mineral Rights Due Diligence Chart



Appendix 8

Mineral Assessment Report Checklist

Note: Some items must be in every Minerals Assessment Report. However, it is important to document only those Conservation Values (Purposes) relevant to the property/easement in question. Overall, the conservation easement drives this document.

Complete	Incomplete	
		Cover Page containing name of project, county, name of preparer & address, and "Presented to".
		Table of Contents with corresponding page numbers.
		Executive Summary.
Section 1: Basic Information		
		Property Name (e.g. ranch name or 'Landowner's Name' Property).
		Property Address (if possible; if not possible, note location of primary access point e.g. 2.3 miles west of Merrivale on County Road 31 at the junction of US 90).
		Acreage of land covered by the CE.
		Name, address, phone number of CE donor(s).
		Statement of the scope of the report.
		Date of onsite inspection. If not completed include an explanation of the level of familiarity with the project location and geologic conditions.
		Statement of the investigation methods used. Geologist should consider factors of geological complexity, mining history, proximity to mineralized areas, quality and scale of available publications and data resources.
		Brief description of property including location.
		Statement of the primary Conservation Values to be protected.
Section 2: Title Investigation (may be included as an appendix)		
		Description of the Surface Estate ownership.
		Description of the Mineral Estate/Mineral Interest ownership.
		Identify sources used to determine Mineral Estate/Interest Ownership.
		List of exceptions to mineral estate ownership.
		List of leases or severances of mineral interest.
Section 3: General Provisions		
		General description of the geology of the project area including geologic units, structure and potential mineral bearing formations or mineralized areas.
		Description of any past or present mining activity in the general area of the project. Location of the nearest mining district relative to the property. Location of the property with respect to mineralized areas, sedimentary and/or structural basins, oil/gas/coal bed methane/geothermal fields. wind energy areas, etc.
Section 4: Resource Potential		
		Description of potential Locatable/Metal Mineral Resources, (Locatable minerals include all minerals subject to exploration, development and production under the 1872 Mining Law) This includes most metals such as gold, silver, lead, zinc, copper and industrial minerals. Ore bodies that contain veins or lodes contain locatable mineral resources.
		Discuss whether the property has favorable/unfavorable geology for these types of resources.
		Discuss whether the conditions on/under the property would lead to surface or subsurface mining of potential mineral resources.

Table continued on following page.

Complete	Incomplete	
		Description of potential Leasable/Energy Resources. (Leasable minerals are those regulated by the Mining Leasing Act of 1920, which excluded them from the General Mining Law of 1872. Geothermal energy was added to the list of leasable minerals by the Geothermal Steam Act of 1970. Leasable minerals include oil, gas, oil shale, potash, native asphalt, bituminous rocks, and phosphate coal.)
		Discuss whether the conditions on/under the property would lead to surface or subsurface mining of potential mineral resources.
		Description of potential Salable/Industrial Mineral Resources. (Salable minerals on federal lands must be purchased from the U.S. Government, and are regulated by the Federal Materials Act of 1947 and the Multiple Surface Use Act of 1955 except where mineral rights are privately owned. Most salable minerals have low unit values per short ton and require easy access to transportation and local markets to be profitably exploited. Examples of salable minerals include sand, gravel, aggregate, dimensional stone, some industrial and construction minerals).
		Discuss whether the conditions on/under the property would lead to surface or subsurface mining of potential mineral resources.
		Summary of Mineral/mining potential. Mineral potential rated using Colorado State Land Board Classification System (Rate on a scale of 0 - No Potential to 5 – Great Potential).
		Justify the score provided. Scores should be based on the presence/absence of favorable geology, potential for economic quality and quantity which may be limited by extent, physical characteristics (weathering), depth to the resource, other technical considerations.
Section 5: Statement of Remoteness		
		From surface mining.
		Is the Property subject to the reservation of a mineral interest, and at any time, there may be extraction of minerals by any surface mining method.
		Is the probability of surface mining so remote as to be negligible and has the report adequately answered this question.
		Whether the probability of extraction or removal of minerals by surface mining is so remote as to be negligible is a **question of fact** to be made on a case by case basis. Relevant factors to be considered include: **geological, geophysical or economic data** showing the **absence of mineral reserves** on the property, or the **lack of commercial feasibility** at the time of the contribution of surface mining the mineral interest.
		The deduction may not be denied in the case of certain methods of mining that may have a **limited, localized** impact on the real property but that are not **irremediably destructive of significant conservation interests".** (Ex. Production facilities are concealed or compatible with existing topography…) Is this the case with the subject Property? Has the report adequately answered this question?
		Sand and Gravel - "other minerals".
		From subsurface mining.
		Is the Property subject to the reservation of a mineral interest, and at any time, may there may be extraction of minerals by any subsurface mining method.
		If subsurface mining is currently occurring on the property or may occur in the future, has the report adequately addressed the question of compatibility with specific conservation values?
Section 6: Statement of Non-Remoteness		
		If non-remoteness from surface mining and/or subsurface mining is found, has the report adequately addressed (narrative and maps) the location of areas of remoteness and non-remoteness on the subject Property?

Table continued on following page.

Complete	Incomplete	
Section 7: Maps and Photographs (As appendices or in appropriate sections)		
		Maps (include legend, scale, and date prepared)
		A state map showing easement location (may be an inset of local map).
		A local road map showing easement location and approximate boundaries.
		An 8 ½ x 11" map from the largest scale USGS topographic map available showing easement boundaries only (identify USGS quad(s) used, scale, and last date USGS map was revised).
		Using the above map, a detailed map showing easement boundaries, all improvements, roads, building envelopes, and natural features.
		Photograph Documentation: attach as an appendix.
		Aerial Photo(s) (if possible) with property boundaries and identifying features such as roads, fences, buildings, etc.
		Photos illustrating physical characteristics of the property, conservation values, structures and current land use. Photos should be taken using GPS waypoints (with a precision of five decimal points) from easy to access points and keyed to the photo point map. Include a short descriptive sentence either under the photo or in a photographic log indicating approximately in which direction the photo was taken and the significance of the photo. For example: "Looking westerly at the northeast corner of Residential Envelope #1. Indicate which photo points should be photographed on each monitoring visit and which should be photographed on a rotating basis. If using original photos in report, write on the back of each photo the number, property name, date taken, and sign.
		Figures: attach as an appendix.
		Graphic depicting mineral estate/mineral interest ownership, mining and mineral features.
		Graphic depicting geological time chart and/or Stratigraphic Column.
Section 8: Documentation of Conservation Values		
		Cover only those Conservation Values pertinent to the property / listed in the conservation easement. Cover the following questions in each relevant category, but blend the answers into the narrative as appropriate. Many of these questions are derived from points raised in the IRS regulations.
Other		
		Bibliography and phone contacts.
		Qualifications of and contact information for Report Preparer.
Land Trust Needs:		
		Land Trust needs two copies of the report: One bound copy for permanent storage and one unbound copy for field work.
		Photos: The photos in the unbound copy may be scanned in. The bound copy should contain the original photographs and negatives. The original photos and negatives need to be in PVC free, archival quality plastic preservers. Digital photos are fine and may be stored on a CD.
		If possible, archival, PVC free paper should be used for both copies.

Appendix 9

Colorado Oil and Gas Conservation Commission Website Directory

Basic queries and mapping within the Colorado Oil and Gas Conservation Commission database

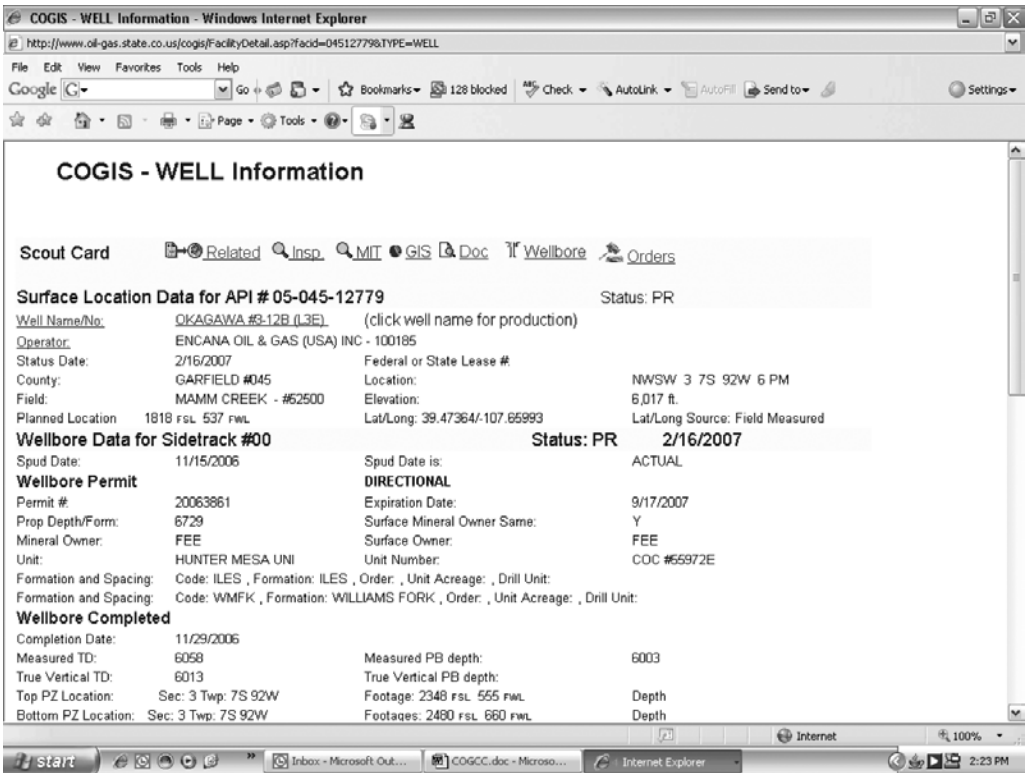
Accessing and Searching the Database:

- Go to http://www.oil-gas.state.co.us/
- Click "Database" in the sidebar menu

Basic database search for locating oil and gas wells (planned, producing, or abandoned) and leases on a Property:

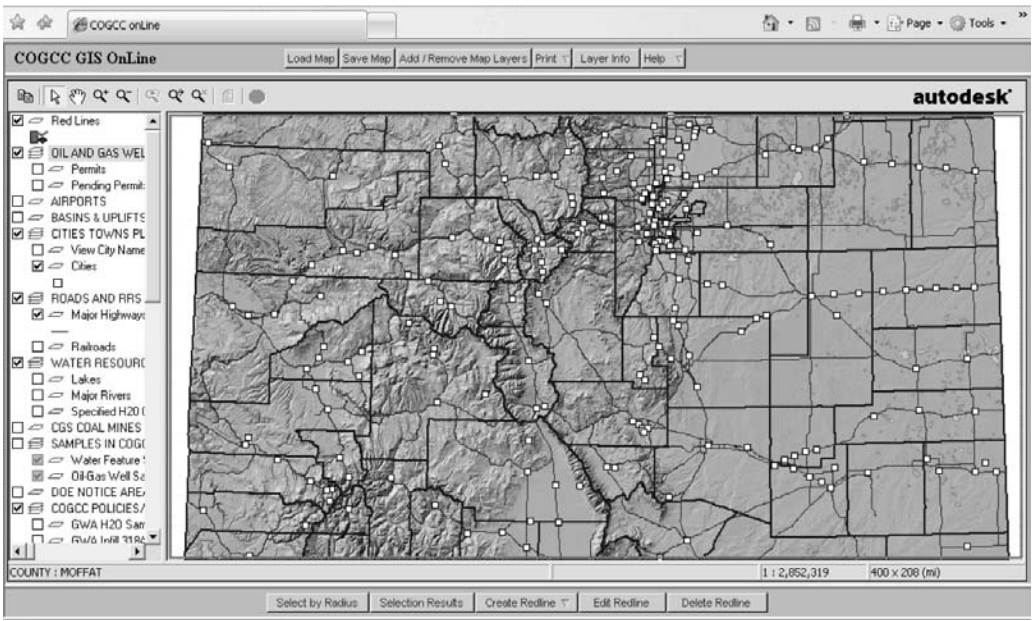
- Click on "Facilities"
- Highlight all facility types you wish to search
  - For example "Wells" and "Leases"
- Enter any detailed location or operator information you have
  - API County Codes link and Field Codes link can be found in the "Help" pages on the sidebar menu
  - *For example, enter Section 3 Twp 7S and Range 92W*
- Increase Record Limit as necessary (the more records, the slower the search)
  - *For example, change to "100"*
  - This list will include any wells drilled on Federal leases, but not the Federal leases themselves.
- Select any search results (based on name and/or location) that appear to be located on or near your Property.
- *Find and select the 05-045-12779, OKAGAWA 3-12B (L3E) well*
- You now have a COGIS Well Information sheet where you can find operator information, and documents, production and inspection records, and facility information related to each well. You can also go to its mapped location (and create detailed maps – see below) using the "GIS" feature.
  - Status Codes and Formation Codes can be found in the "Help" pages on the sidebar menu
  - Many of the documents require a TIFF (Tag Image File Format) viewer, such as IrfanView, QuickTime, or similar software for viewing.

NOTE: To use the database features you may need to download the Mapguide Plugin by clicking on "Maps" on the side bar menu, then click on "Get Viewer Plug in" to download viewer for maps. You may also need to download "GIS Downloads" and "DNR Map Site Links" to view all features on the Web site.



Accessing and Using the Mapping Functions

- Go to http://www.oil-gas.state.co.us/
- Click "Maps" in the sidebar menu
  - Follow directions to download any necessary plugin software
  - Turn popup blocker software off
- Click "View Map" to open the default, statewide map layer



**Note, right-clicking within the map provides a layer-dependent menu of functions.*

Basic search for locating oil and gas wells (planned, producing, or abandoned) and leases on a Property within the map:

- In this default map screen, click  , right click on ZoomGoto and enter appropriate data.
  - *For example select Township and Range and enter 7S92W*
- Click "Select by Radius" and create a circle around your Property's approximate location.
  - *For example now create a search area around the wells in Section 3*
- Click "Selection Results" and a list of wells is given in a new window. Alternatively, holding the pointer over each well "dot" reveals the well name and API number and can be double-clicked to select that individual well
  - *Find and select the 05-045-12779, OKAGAWA 3-12B (L3E) well by either method*
- You now have a COGIS Well Information sheet, as shown above.

Searching for Federal Leases on a Property – Expanded Search:

- While performing searches as above, check the "Federal OG Leases" box in the left "Layer" pane under "BLM O&G/Land Info" to view areas under Federal lease.
  - Moving the cursor over leased areas will display basic lease information
  - The COGIS Well Information sheet should also say "Federal" under mineral owner or otherwise indicate the well is subject to a Federal lease.

Other Expanded Searches, Adding Graphical Layers, and Creating Maps:

- left "Layer" pane or the Add/Remove Map Layers button can be used to locate areas with other rulings such as "No Surface Occupancy" and "Spacing Orders." Every check-box will add a layer and that area on the map can be double-clicked for detail on the added component.
  - For example, check the "Spacing Orders" box under COGCC spacing. Then, while still in 7S92W, double-click (with the arrow select tool) on Section 3 to see the orders authorizing a well density change and what well-spacing was authorized.
- Basic drawing functions are available using the "Redline" commands and other geographical elements can be added using the left "Layer" pane and the Add/Remove Map Layers button to enhance your map for printing such as road names and water resources, surface land owner (Private/Federal/Etc), aerial overlays (black and white or color), and topographic overlays.
  - Double-clicking after adding certain layers will provide further detail about your property.
    - ❖ *For example, add the "Soils_NRCS"* layer and then double-click on your property to be taken to the NRCS Soil Data Mart report for that area.
- Your map can be copied into a document using the  Copy to Clipboard function and can also be printed using the Print commands within the map viewer (map can be titled and changed to landscape printing in the Print Setup window).

Appendix 10

Bureau of Land Management Web Site Directory

Basic queries on Oil and Gas Lease Sales within the Bureau of Land Management database

Accessing and Searching the Database:

- Go to http://www.blm.gov/co/st/en.html
- Click "+" next to Programs in the sidebar menu to expand the list
- Click "Energy" under the Programs list
- Click "Oil and Gas" for information about federal oil and gas leases and regulations

Basic database search for locating sales of oil and gas leases back to 2003:

- Click on "Leasing" in the green table
- Click on the date of the sale or scroll down to get information about upcoming sales or past sales including maps showing where the leases are located, the results of the sale, any documents issued by the BLM concerning the sale, and the notice containing information about the sale location

Appendix 11

Colorado Division of Mining, Reclamation and Safety Web site Directory

Basic queries and mapping within the Colorado Division of Reclamation Mining and Safety database

Accessing and Searching the Database:

- Go to http://mining.state.co.us/
- Click "County/Operator Mining Data" in the sidebar menu

Basic database search for locating mining permits (status, type of permit, type of mine, commodity being mined):

- Click on "Download Report Codes" for a key of abbreviations used on databases
- Search by county, by operator name, by permit number, or by mine name
    - Each database will contain the county, the permit and operator information, the Section, Township, Range, Prime Meridian and quarter section, the type of mineral being mined, the acreage that the permit covers, and the amount of the annual fee and surety

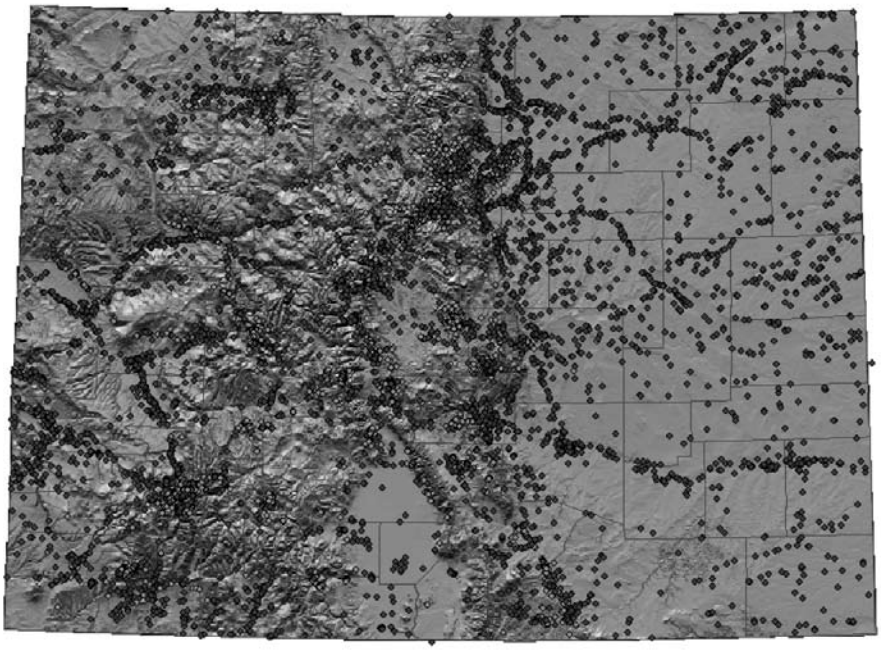
Colorado Division of Reclamation, Mining, and Safety 9/2/2008

Operator / Site Name / Permit No. / Permit Type / QT/QT/QT	Permit Issued / Permit Status	Section	Township	Range	Prime Meridian	Contact / Address Line 1 / Address Line 2 / City State Zip Code / Telephone	Commodities Mined (USGS Codes)	County / Permit Acreage / Mine Type / Annual Fee / Required Surety
Las Animas County Road & Bridge Smaderal Rip Rap Site M-2001-122 NM //SW	 NM	34	32 S	62 W	06	 2000 N. Linden Ave. Trinidad CO 81082- (719) 846-4766		
Lonnie Malouff Lonnie Malouff M-2008-056 NM //	 IM					 Lonnie Malouff 536 CR 307 Durango CO 81303 () -		 0.00 $0.00 $0.00
Mike Lane UNK M-2007-053 NM //	 WD					 Mike Lane 62 Mica Drive Marble CO 81623 () -		 0.00 $0.00 $0.00
Miles Construction Co. Miles Construction M-2007-063 NM //	 NM					 Steve Miles P.O. Box 248 Buena Vista CO 81211 () -	 SDG	 0.00 $0.00 $0.00
Ray Pfeffenhauser UNK M-2008-042 NM //	 IM					 Ray Pfeffenhauser 55 County Road 594 Walsenburg CO 81089 () -		 0.00 $0.00 $0.00
Riess Research and Planning UNK M-2007-077 NM //	 WD					 Naomi Riess 1480 E. 2nd Ave. - Ste. 8 Durango CO 81301 () -		 0.00 $0.00 $0.00
Rocky Mountain Exploration & Salvaging, Inc. UNK M-2007-052 NM //	 IM					 Eric Bishop P.O. Box 6793 Dillon CO 80435 () -		 0.00 $0.00 $0.00
Russell Surveyors Pat Steenburg M-2008-059 NM //	 IM					 Pat Steenburg 6820 S Hwy 17 Alamosa CO 81101 () -		 0.00 $0.00 $0.00
South Main Development, Inc. South Main Development M-2007-061 NM //	 NM					 Jed Selby 306 E Main St P.O. Box 5246 Buena Vista CO 81211 () -	 SDG	 0.00 $0.00 $0.00

Report is sorted on County, then Operator, then Permit No. 3

Accessing and Using the Mapping Functions

- Go to http://mining.state.co.us/
- Click "GIS Data" in the sidebar menu
- Click "DRMS Map" to open the default, statewide map layer that contains all permitted mines in the state



Basic search for locating specific mines on a Property within the map:

- Click on the down arrow of the "Map Contents" tab on the sidebar menu
  - There will only be one box that says "Mines" with a + next to it
- Click the "+" next to "Mines" to expand the menu
- Check the boxes next to the features you would like to see on the map
- Click the "I" on the toolbar at the top left and click on the dot on the map to get specific information on the mine
  - Click the "+" next to the mine number to expand the menu to get County information and the name and specifics of the mine

Appendix 12

List of Other Sources

Bureau of Land Management Best Management Practices http://www.blm.gov/bmp

- Split Estate: Rights, Responsibilities, and Opportunities
- The Gold Book: *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development*
- BMP Technical Information

Colorado Division of Reclamation Mining and Safety http://mining.state.co.us/

Colorado Geological Society http://geosurvey.state.co.us/

Colorado Oil and Gas Conservation Commission http://cogcc.state.co.us/

- Rulemaking notices and information
- Approved and Pending Applications

GeoCommunicator:
National Integrated Land System http://www.geocommunicator.gov/GeoComm/index.shtm

IRS Private Letter Rulings http://www.irs.gov/foia/lists/0,,id=97705,00.html

Oil and Gas At Your Door? A Landowner's Guide to Oil and Gas Development
http://www.earthworksaction.org/pubs/LOguide2005book.pdf

U.S. Environmental Protection Agency: National Menu of Stormwater Best Management Practices
http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm

U.S. Forest Service: Low-Volume Roads Engineering: Best Management Practices Field Guide
http://ntl.bts.gov/lib/24000/24600/24650/Index_BMP_Field_Guide.htm

Western Governors' Association Reports http://www.westgov.org/wga_reports.htm

Appendix 13

Acronyms & Glossary

Acronyms

BLM—U.S. Bureau of Land Management

CDMRS—Colorado Division of Mining Reclamation and Safety

CGS—Colorado Geological Survey

COGCC—Colorado Oil and Gas Conservation Commission

CSLB—Colorado State Land Board

IRS—Internal Revenue Service

MRA—Mineral Remoteness Assessment

NEPA—National Environmental Policy Act

Glossary

A

abandoned well—A well no longer in use, whether dry or no longer productive, and the previous operator has intentionally relinquished its interest in the well.

abstract (of title)—A chronological history of the ownership or events affecting a particular piece of property; prepared by an abstract or title company.

air emissions—Waste gases, vapors and small particles released into air.

associated gas—Natural gas that overlies or contacts oil in a reservoir.

B

basin—A large natural depression on the earth's surface in which sediments, typically waterborne, accumulate.

battery—Storage facility receiving production from a well or wells. Includes equipment for separating the fluid into oil, gas and water for measurement, as well as containers for holding the separated fluids, e.g., tanks.

Bcf—The abbreviation for billion cubic feet of gas.

beam pumping unit—A machine designed specifically for sucker rod pumping. An engine or motor (prime mover) is mounted on the unit to power a rotating crank. The crank moves a horizontal member (walking beam) up and down to produce reciprocating motion. This reciprocating motion operates the pump.

benzene—An aromatic hydrocarbon present to a minor degree in most crude oils. Used in manufacturing detergents, synthetic fibers, and petrochemicals, as a solvent, and as a component of high octane gasoline. Is a known carcinogen.

bit—The cutting or boring element used in drilling oil and gas wells.

blowout—An uncontrolled flow of gas, oil, or other well fluids or materials from a well.

blowout preventer—One or more valves installed at the wellhead to prevent the escape of pressure and substances during drilling or completion operations by closing around the drillpipe or sealing the hole.

bond—A financial guarantee supplied by the oil or gas company to ensure the reclamation of the lands disturbed by oil and gas development. If required reclamation is not completed, the state or federal agencies or surface owner can use the money supplied by the bond to complete the necessary work.

bonus—The cash amount paid by a lessee (e.g., an oil or gas company) to the owner of the leasing rights, usually upon execution of an oil and gas lease. May take other forms than cash. Some lessors, for tax reasons, may request partial payment over a number of years.

Glossary modified from Oil and Gas Accountability Project, Oil and Gas at Your Door? A Landowner's Guide to Oil and Gas Development, Second Edition (2005). http://www.earthworksaction.org/pubs/LOguide2005book.pdf

borehole—The hole created in the earth when a well is drilled or bored.

brine—Water that has a quantity of salt, especially sodium chloride, dissolved in it; salt water.

carbon dioxide—A colorless, odorless, gaseous compound of carbon and oxygen; it is a product of incomplete combustion.

casing—Steel pipe that is placed in the borehole and cemented in to prevent the hole from collapsing and to prevent movement of drilling fluids from the borehole into the formation, or fluids from one formation to another. Casing operations occur periodically throughout the drilling process starting with the surface casing and ending with production string which takes place during well completion.

cementing—The application of a liquid slurry of cement and water to various points inside or outside the casing in order to support the casing and prevent fluid migration between permeable zones.

christmas tree—The system of control valves, pressure gauges and related equipment that is located on top of the well at ground level to controls the flow of oil and/or produced from the well. It is used when reservoir pressure is sufficient to cause reservoir fluids to rise to the surface.

common reservoir—A pool or accumulation of oil or gas that is produced in more than one well

complete a well—To finish work on a well and bring it to productive status.

compressor—A device that raises the pressure of a compressible substance such as vapor or gas, and creates a pressure differential to move the vapor or gas.

compulsory pooling—Also known as forced pooling, it is the right, granted by a state regulatory body, for a company to include adjacent tracts in its drilling unit, even if the company owning the lease on that tract does not want to be included or the individual mineral owner of the tract does not want to lease. Certain payments are due to the mineral owners of compulsory pooled tracts.

condensate—The liquid resulting when a vapor is subjected to cooling or application of pressure. Also, liquid hydrocarbons condensed from gas and oil wells.

covenant—A promise to do something. Under a lease there are two types of covenants: (a) stipulated, i.e., set out in the lease, (b) implied, i.e., interpreted by and the courts to be present in the lease whether written out or not. Implied covenants may include fully developing the property, diligence in marketing of the production, etc.

crude oil—Unrefined liquid petroleum.

cuttings—The fragments of rock cut from the formation by the drill bit and brought to the surface in the drilling mud. Used by geologists to obtain information about the formations.

D

damages—Compensation paid by an operator to the surface owner for actual and potential damage to the surface and crops in the drilling and operation of a well.

delay rentals—The payment made to the lessor (e.g., oil or gas company) for the privilege of continuing the lease without drilling on it. This payment is usually made annually if drilling does not take place.

development well—A well drilled within the proved area of an oil or gas reservoir to the depth of a geological formation known to be productive.

directional drilling—Drilling at an angle from the vertical. Controlled directional drilling makes it possible to reach subsurface areas laterally distant from the point where the drill bit enters the earth.

disposal well—Well used for disposal of produced water into an underground formation.

downhole—Pertaining to the wellbore, as opposed to activities and equipment associated with the surface.

drill bit—The cutting or boring element used in drilling oil and gas wells. The bit consists of the cutting elements and the circulating element. The circulating element allows the passage of drilling fluid and uses the hydraulic force of the fluid to improve drilling rates.

drill cutting analysis—Also known as drill core analysis, it is the analysis of cuttings or core samples to determine characteristics such as porosity, permeability and probable productivity of the formation.

drilling fluid—Specially formulated liquid circulated through the wellbore during rotary drilling operations. Used to bring cuttings from the wellbore to the surface; to lubricate and cool the drill bit, string, line, and walls of the well; and provides weight to counteract downhole formation pressure. Also known as drilling mud.

drilling mud—See drilling fluid.

drilling unit—The maximum area from which one well can efficiently and effectively extract the oil or gas. Drilling unit size is determined by a state agency.

drilling window—The section of a drilling unit where drilling must take place.

dry gas—Natural gas that does not have a significant content of liquid hydrocarbons or water vapor.

dry hole—A drilled well that does not produce oil or gas in commercial quantities.

E

egress—The act of getting out or leaving.

enhancement (of production)—The use of various processes to increase the displacement of oil from the reservoir, e.g., gas injection, flooding and waterflooding. Also known as secondary recovery.

exploration phase—The phase of operations that covers the search for oil or gas by carrying out detailed geological and geophysical surveys, and, if appropriate, exploratory drilling.

exploratory well—A well that is drilled for the purpose of securing geological or geophysical information to determine the viability of developing oil, gas, geothermal, or other mineral resources. It includes what is commonly referred to in the industry as "slim hole tests," "core hole tests," or "seismic holes".

erosion—The process by which materials, such as rock or soil, are worn away or removed (as by wind or water).

F

farmout—Assignment or partial assignment of an oil and gas lease from one lessee to another lessee.

field—An area of oil and gas production with at least one common reservoir for the entire area. There may be two or more reservoirs in a field that are separated vertically by intervening impermeable geologic layers, or laterally by local geologic barriers, or by both.

flaring—burning of hydrocarbon gases for commercial or technical reasons.

flooding—Forcing oil from a reservoir into a well by injecting water or chemicals under pressure into the reservoir formation. See waterflooding.

flow line—The surface pipe through which oil or gas travels from a well to processing equipment or to storage.

flowing well—A well that produces oil or gas by its own reservoir pressure rather than by use of artificial means such as pumps.

forced pooling—See compulsory pooling.

formation—A layer of rock with distinct features such as texture or mineral composition. The thickness of a geological formation can range from a few feet to several hundred feet.

formation fluid—A fluid, such as gas, oil, or water, that exists in a subsurface or geological formation.

fracing fluid—A fluid such as water, oil or acid, used in the hydraulic fracturing ("fracing") process. Under extremely high hydraulic pressure these fluids are pumped downward through production tubing. The pressure causes cracks to open in the formation, and the fluid penetrates the formation through the cracks. The fluid also carries substances called proppants that hold open the formation cracks after hydraulic pressure dissipates. Also known as frac, fracturing or hydraulic fracturing fluid.

fracturing—A method of stimulating oil or gas production by opening new flow channels in the formation surrounding a production well. It involves pumping of crude oil, diesel, water, or chemical into a reservoir with such force that the reservoir rock is broken and results in greater flow of oil or gas from the reservoir. Also known as hydraulic fracturing or fracing.

G

gas-oil ratio (G.O.R.)—Number of cubic feet of gas produced per barrel of oil.

gas well—A well that primarily produces gas. Legal definitions vary among the states.

gas field—A field containing natural gas but no oil.

gas injection—A secondary recovery method whereby dry natural gas or carbon dioxide is injected into an oil reservoir to increase pressure around the injection well and thus increase flow and oil production from nearby wells.

gas processing—Separation of oil and gas, and removal of impurities and from natural gas.

gathering line—A pipeline that transports oil or gas from a central point of production to a gas transmission line or mainline.

H

heavy oil—Hydrocarbons composed of long chains of hydrogen and carbon atoms

horizontal drilling—A drilling technique where a well is drilled vertically to a certain depth and then drilled at a right angle so that the borehole penetrates a productive formation in a manner parallel to the formation.

hub—A location where several pipelines interconnect. Also known as a market center.

hydraulic fracturing—An operation in which a specially blended liquid is pumped down a well and into a formation under pressure high enough to cause the formation to crack open, forming passages through which oil or gas can flow into the wellbore. See also fracturing.

hydrocarbons—Organic compounds composed of hydrogen and carbon. Their densities, boiling points, and freezing points increase as their molecular weights increase. The smallest molecules of hydrocarbons are gaseous; the largest are solids. Petroleum is a mixture of many different hydrocarbons.

hydrogen sulfide—Chemical formula H2S, also known as sour gas. It is a flammable, colorless gas that is often associated with oil and gas development. Hydrogen sulfide is toxic and smells like rotten eggs at low concentrations. It is heavier than air, and may accumulate in low-lying areas.

I

impermeable—Preventing the passage of fluid. A formation may be porous yet impermeable if there is an absence of connecting passages between the voids within it.

independent producer—An energy company, usually in the exploration and production segment of the industry and generally with no marketing, transportation or refining operations. A non-integrated producing company in the oil industry.

ingress—The act of entering.

injection water—Water that is introduced into a reservoir to help drive hydrocarbons to a producing well. May also refer to produced water that is introduced into a formation other than the one from which it was extracted.

injection well—A well through which fluids are injected into a subsurface formation to increase reservoir pressure and to displace oil (e.g., during oil enhancement or waterflooding operations). Also called an input well.

L

landman—An employee of an oil and gas company or an agent for the company who negotiates oil and gas leases with mineral owners, cures title defects, and negotiates with other companies on agreements concerning the lease. Landmen may become certified by passing an exam given by the American Association of Professional Landmen.

lease—A legal instrument that could be a contract, profit-share agreement, joint venture or other agreement between a mineral owner (lessor) and another party (lessee) that grants exclusive right to the lessee to explore for, drill, produce and remove oil or gas from a piece of land.

lessee—The person or party who receives the lease, sometimes called the tenant.

lessor—The person or party giving the lease, sometimes called grantor or landlord.

liquified natural gas (LNG)—Natural gas that is cooled to about -260°F at normal pressure, resulting in the condensation of the gas into liquid form. LNG takes up about 1/600th of the volume of gaseous natural gas, which decreases the cost of transporting the natural gas. But LNG is costly to produce, and thus, only accounts for 1 % of the natural gas used in the United States.

M

Mcf—Abbreviation for one thousand cubic feet.

MMcf—Abbreviation for one million cubic feet.

methane—A gaseous hydrocarbon (at normal temperature and pressure) consisting of one carbon atom and four hydrogen atoms. Chemical formula CH4.

mineral—A naturally occurring homogeneous substance that is obtained from the ground for human use (e.g., stone, coal, salt, sulfur, sand, petroleum, water, natural gas).

mineral estate—The ownership of minerals lying below the surface of land, and considered to be "real property." The mineral ownership may or may not be tied to surface ownership.If the surface ownership and the mineral ownership are different, the minerals are said to be "severed."

monitoring—The periodic observation and orderly collection of data to evaluate the effects of oil and gas development.

mud—The liquid circulated through the wellbore during rotary drilling and workover operations. Also known as drilling fluid.

mud pit—Originally, an open pit dug in the ground to hold drilling fluid or waste materials discarded after the treatment of drilling mud. For some drilling operations, mud pits are used for suction to the mud pumps, settling of mud sediments, and storage of reserve mud. Steel tanks are much more commonly used for these purposes now, but they are still usually referred to as pits.

mud tank—A series of open tanks, usually made of steel, through which the drilling mud is cycled to allow sand and sediments to settle out.

N

natural gas—A highly compressible, highly expansible mixture of hydrocarbon and small quantities of nonhydrocarbons, with a low specific gravity, and occurring naturally in a gaseous form. Found in porous formations beneath the earth's surface, often in association with petroleum.

The principal constituent is methane.

natural gas processing plant—A facility designed to recover natural gas liquids from the stream of natural gas which may or may not have been processed through field facilities; and to control the quality of the natural gas to be marketed.

Natural Gas Liquids (NGL)—Hydrocarbon liquids extracted from natural gas.

NOx—Nitrogen oxides, which are gases containing nitrogen and varying number of oxygen atoms. Some sources of these gases include motor vehicle exhaust, burning of diesel fuel, coal, and flaring of methane.

O

oil—A simple or complex liquid mixture of hydrocarbons that can be refined to yield gasoline, kerosene, diesel fuel, and various other products.

oil field—The surface area overlying an oil reservoir or reservoirs. The term usually includes not only the surface area, but also the reservoir, the wells, and the production equipment.

open-flow test—A test made to determine the volume of gas that will flow from a well during a given time span with minimum restrictions.

open hole—Any well in which casing has not been set, or an open or cased hole in which no drill pipe or tubing is suspended.

open-hole completion—A method of preparing a well for production whereby no production casing or liner is installed opposite the producing formation. Reservoir fluids flow unrestricted into the open wellbore.

operator—A person or company that operates a well or lease. Generally, the oil or gas company that engages the drilling, service, and workover contractors.

P

PAH—Abbreviation for polynuclear aromatic hydrocarbon; also called polycyclic aromatic hydrocarbons. PAHs are hydrocarbon compounds with multiple benzene rings. Typically, they are components of asphalts, crude oil, coal, coal tar pitch, fuels, and greases. Also, PAHs are formed during the incomplete burning of coal, oil, and gas.

paraffin—A saturated aliphatic hydrocarbon having the formula CnH2n+2 (for example, methane, CH4; ethane, C2H6). Heavier paraffin hydrocarbons (for example, C18H38) form a waxlike substance that is called paraffin. These heavier paraffins often accumulate on the walls of tubing and other production equipment, restricting or stopping the flow of the desirable lighter paraffins.

perforation—A hole made in the wellbore casing, cement, and into the formation, thus allowing oil or gas to flow into the wellbore.

permeability—Ability of rock to transmit fluids through pore spaces.

petroleum—A substance occurring naturally in the earth in solid, liquid, or gaseous state and composed mainly of mixtures of chemical compounds of carbon and hydrogen. Petroleum may contain nonmetallic elements such as sulfur, oxygen, and nitrogen. In some cases, petroleum refers only to oil. When used more generally, however, it is the name for hydrocarbons, including crude oil and natural gas and their projects.

pit—Hole dug out in the ground surface for temporary storage of fluids during drilling operations.

plug—Any object or device that blocks a hole or passageway, such as a cement plug in a borehole, which seals off formations to stop open communication of formation fluids within a well.

pollution—Contamination of surface or subsurface air, waters or land.

pooling—Pooling is the combining of small or irregular tracts into a unit large enough to meet state spacing regulations for drilling permits. Not to be confused with unitization (below). See also compulsory and voluntary pooling.

porosity—The percentage of rock volume that can be occupied by oil, gas or water.

primary recovery—Also known as primary production. Primary recovery is the first stage of hydrocarbon production, and natural reservoir pressure is often used to recover oil. When natural pressure is not sufficiently capable of forcing oil to the surface, artificial lift equipment, e.g., a pump, is used. Primary production accounts for less than 25 % of the original oil in place. To recover a portion of the remaining oil, secondary recovery methods are used.

primary term—The period of time during which a lease may be kept alive by a lessee (even though there is no production in paying quantities) by virtue of drilling operations on the leased lands or the timely payment of rentals.

processing plant—A plant where liquefiable hydrocarbons are removed.

producer—Any party owning, controlling, managing, or leasing any gas well and/or any party who produces in any manner natural gas by taking it from the earth or waters.

produced water—Liquids produced during the drilling and production operations. Produced water usually is composed of groundwater and by-products of the drilling operations, e.g., mud, drilling lubricants, and oil. The volume of coalbed methane produced water is orders of magnitude greater than water associated with conventional oil and gas production.

production—The phase of the petroleum industry that deals with bringing the well fluids to the surface and separating them and storing, gauging, and otherwise preparing the product for delivery. Also, may refer to the amount of oil or gas produced in a given period.

proppants—Sand grains, aluminum pellets, walnut shells, or similar materials that are carried by fracing fluid during hydraulic fracturing. When the pressure is released at the surface, the fracturing fluid returns to the well but leaves behind the propping agents to hold open the formation cracks.

proved reserves—The estimated quantities of oil or natural gas that geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions.

pump—A device that increases the pressure on a fluid or raises it to a higher level. Various types of pumps include the bottom hole pump, centrifugal pump, hydraulic pump, jet pump, mud pump, reciprocating pump, rotary pump, sucker rod pump, and submersible pump.

pump jack—A surface unit similar to a pumping unit but having no individual power plant. Usually, several pump jacks are operated by pull rods or cables from one central power source.

R

reclamation—The restoration of lands disturbed by oil and gas activity to some specified end, e.g., productive use. Activities usually include recontouring and reseeding the land.

refinery—An industrial operation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and oxygenates.

reinjection—The introduction of produced water into the same formation from which it was extracted, as opposed to injection, which is the introduction of produced water into a different formation.

reserve pit—It is usually an excavated, earthen-walled pit. It may be lined with plastic or other materials to prevent soil contamination. It may be used to store water, drilling fluid, or drill cuttings and wash water during drilling operations, or as a waste pit for spent drilling fluid. If used to store drilling fluids, additives are mixed with the mud in the pit, and the fluid is temporarily stored there before being pumped back into the well.

reserve tank—A special mud tank that holds mud that is not being actively circulated. A reserve tank usually contains a different type of mud from that which the pump is currently circulating. For example, it may store heavy mud for emergency well-control operations.

reserves—The unproduced but recoverable oil or gas in a formation.

reservoir—The underground formation where oil and gas have accumulated. It consists of porous, permeable or fractured rock, which holds the oil or gas, and a cap rock that prevents its escape. Most reservoir rocks are limestones, dolomites, sandstones, or a combination of these.

rig—The derrick or mast, drawworks, and associated surface equipment of a drilling or workover unit.

rotary drilling—A drilling method in which a hole is drilled by a rotating bit to which a downward force is applied. The bit is fastened to and rotated by the drill stem, which also provides a passageway through which the drilling fluid is circulated. Additional joints of drill pipe are added as drilling progresses.

rotary rig—A machine, used for drilling wells, that employs a rotating tube attached to a bit for boring holes through rock.

royalty—An interest in an oil and gas lease that gives the owner of the interest the right to receive a portion of the production from the leased acreage (or a share of the proceeds of the sale of production). Normally, royalty interests are free of all costs of production (drilling or operating the wells), except production taxes.

royalty payment—The cash or kind paid to the owner of mineral rights.

S

salinity—A measure of the concentration of dissolved salts.

scale—Is essentially a mineral deposit (for example, calcium carbonate) that forms when minerals separate out of water. The minerals harden and can adhere and build up inside of pipes, heaters, and other equipment.

secondary recovery—Enhances the recovery of liquid hydrocarbons by repressurizing the reservoir and reestablishing or supporting the natural water drive. See also waterflooding and enhancement of production.

seismic tests—Measurements of seismic-waves in an effort to detect boundaries between different kinds of rocks; this detection assists in mapping of geologic structures.

setback—The minimum allowable horizontal distance from a given reference point (e.g., a drilling rig) to the vertical wall or other element of a principal building or structure (e.g., a house).

severed mineral interest—An interest, which is held by someone other than the surface owner, in the minerals in, on, and under a given tract of land.

shut in—To close the valves on a well so that it stops producing; or to close in a well in which a kick has occurred.

shut-in well—A well that is capable of producing but is not being produced. Reasons for wells being shut in may be lack of a pipeline, lack of a market, etc.

sour gas—Natural gas containing significant quantities of sulfur and/or carbon dioxide, making it impractical to use without purifying, because of its corrosive effect on piping and equipment and its danger to human life.

sour crude—Crude oil contaminated by sulphur compounds, typically hydrogen sulfide. Sour crude has sulphur content above 1 percent.

spacing—The distance between wells allowed by the regulatory body. The spacing is based on what is deemed to be the amount of acreage that can be efficiently and economically drainedby a well.

split estate—When the surface and subsurface estates are owned by different parties. See also severed mineral interest.

spud in—The operation of drilling the first part of a new well.

storage tank—Tank for storing an accumulation of oil prior to its transfer to a pipeline company or other purchaser.

sweet gas—Natural gas that contains little or no sulfur or sulfur components, and therefore no processing is necessary for their removal, and the gas may be used directly as a non-corrosive domestic heating fuel.

T

tank battery—A collection of tanks used for oil storage prior to delivery to a refinery.

tank farm—An installation used by gathering and trunk pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

three dimensional (3-D) seismic—An advanced method for collecting, processing seismic data to yield a three-dimensional picture of the subsurface.

tight formation gas—Gas produced from a sedimentary layer of rock cemented together in a manner that greatly hinders the flow of any gas through the rock.

tight sand—A sand or sandstone formation with low permeability.

trap—A geological structure in which hydrocarbons build up to from an oil or gas field.

U

Underground Injection Control (UIC)—A program required in each state by a provision of the federal Safe Drinking Water Act for the regulation of injection wells. An applicant must demonstrate that the well has no reasonable chance of adversely affecting the quality of an underground source of drinking water before a permit is issued.

unit—The area covered by a unitization agreement.

unitization—This occurs when companies pool their individual interests in return for an interest in an overall unit, which could be all or some portion of a producing reservoir. The unit is then operated by a single company on behalf of group. As contrasted to "pooling," unitization involves a group of wells in an area, rather than the pooling of leases to create an enough of an area to constitute a drilling unit for one well. It commonly occurs under secondary recovery operations, when a number of producers in a field recognize the need to have a field-wide strategy to increase overall production in the field.

V

viscosity—The resistance that a fluid has to natural flow. Oil's viscosity is usually greater than an oil and gas mixture.

VOC—Abbreviation for volatile organic compound. VOCs are compounds that have a high vapor pressure and low water solubility. VOCs include benzene, toluene, ethylbenzene and xylene; trichloroethylene; fuel oxygenates, such as methyl tert-butyl ether (MTBE); and VOCs are often components of petroleum fuels, hydraulic fluids and paint thinners. VOCs are common groundwater contaminants.

voluntary pooling—Pooling of leased mineral tracts willingly undertaken by all the parties involved, both working interest owners and royalty owners.

valve—A device used to control the rate of flow in a line to open or shut off a line completely, or to serve as an automatic or semiautomatic safety device.

venting—Release of gases to atmosphere.

W

waterflooding—Injecting water into one well, thereby causing oil not recovered by primary production to migrate to an adjacent well.

water quality—The chemical, physical and biological characteristics of water with respect to its suitability for a particular use.

well—The hole made by the drilling bit for the purpose of finding or producing crude oil or natural gas or providing services related to the production of crude oil or natural gas. Wells are classified as oil wells, gas wells, dry holes, stratigraphic or core tests, or service wells. Wells may also be referred to as boreholes, holes, or wellbores.

well log—A record of geological formation penetrated during drilling, including technical details of the operation.

well completion—The activities and methods of preparing a well for the production of oil and gas or for other purposes, such as injection; the method by which one or more flow paths for hydrocarbons are established between the reservoir and the surface.

well logging—The use of radioactive, electric, mechanical, and sonic tools to identify formation and other downhole properties of the well bore.

wellbore—The borehole or hole drilled by the bit. A wellbore may have casing in it or it may be open (uncased); or part of it may be cased, and part of it may be open. Also called a borehole, hole or well.

wildcat well—A well drilled in an area where no oil or gas production exists. A well drilled for the purpose of discovering a new field or reservoir, as opposed to a development well, which is drilled in an area known to be productive.

workover—One or more of a variety of remedial operations used to try to increase production of a well.

wet gas—Natural gas having significant amounts of heavier hydrocarbons.

Z

zone—A layer of rock which has distinct characteristics that differ from nearby rock.

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Mineral Development and Land Conservation: A Handbook for Conservation Professionals provides expert and easy-to-use information about a broad range of issues related to land conservation and mineral and energy development. The Handbook compiles expertise from Colorado oil and gas and conservation attorneys, scientists, industry professionals and other conservation professionals on timely topics such as:

- Tax laws related to conservation easements and mineral development;
- How to determine ownership of mineral rights;
- Split estate and the legal rights of estate owners;
- The basic elements of a mineral remoteness assessment;
- Impacts of subsurface mining on conservation values;
- Mitigation and best management practices;
- Surface use agreements;
- Sample easement language; and
- Other key references and resources.

The Colorado Coalition of Land Trusts provides this valuable resource to support Colorado's efforts to lead the way on land conservation as well as essential energy production.

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