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Surface Access and Use Stop, Look and Listen your way to the Drill Site

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Surface Access and Use

How do you get there from here? Use the real property of another for access through easements, licenses, leases and other lawful means.

"... Wherever you go, there you are." — Thomas a Kempis, Imitation of Christ, ca. A.D. 1440

I. INTRODUCTION

An easement is the right to use the real property of another. The right is often described as the right to use the land of another for a special purpose. Unlike a lease, an easement does not give the holder a right of "possession" of the property, only a right of use. It is distinguished from a license that only gives a personal privilege to do something on the land of another. An example of a license is the right to park a car in a parking lot with the consent of the parking lot owner. Licenses can be terminated by the property owner much more easily than easements which are, once given or acquired irrevocable for their term.

Easements may be public or private. A private easement is limited to specific individuals or entities such as the owner of adjoining land. A public easement grants the right to a large group of individuals or to the public such as the easement on public streets and highways or the right to navigate a river.

II. THE FEE ESTATE

A. Dedication

A roadway or street is "dedicated" when the street or roadway is set apart for the public use for a passageway. For a dedication to occur, the elements necessary are (1) an intention of the landowner to devote his land to public use; (2) a manifestation of the landowner's intention through his words or acts, and a communication to the public or some portion and (3) an acceptance of the property by the public. King v. Walton, 576 S.W.2d 460, (Tex. Civ. App.-- San Antonio 1979, writ ref'd n.r.e.). Whether property is dedicated is a question of fact, and it may be implied from the owner's conduct. Vicardi v. Pajestka, 576 S.W.2d (Tex. 1978). There need not be an express acceptance by the public; rather, an implied acceptance by the public is sufficient. Gilder v. City of Brenham, 67 Tex. 345; 3 S.W. 309 (Tex. 1887). If an intention to dedicate has been shown, then the public use of the land constitutes a completed dedication. City of San Antonio v. Grand Jean, 91 Tex. 430; 41 S.W. 477 (Tex. 1897).

Case law requires no specific acts by the dedicating party, but requires acts sufficient to evidence the intention to dedicate the roadway to public use, and the intention to dedicate must be shown by something more than an omission or failure to act or acquiescence by the owner. Greenway Parks Home Owners Association v. City of Dallas, 312 S.W.2d 235 (Tex. 1958). The doctrine of dedication, absent a specific statement of dedication, is based upon the principle of estoppel, such that if the open and known acts are of such a character as to induce the belief that the owner intended to dedicate the way to public use, and the public and individuals act upon such conduct, proceed as if there had

been a dedication, and acquired rights which would be lost if the owner could reclaim the land, then the law will not permit the owner to assert there was no intent to dedicate the property. See O'Conner v. Gragg, 339 S.W.2d 878 (Tex. 1960).

In Texas, prescriptive or implied dedications must be exclusive to be hostile. County of Real v. Sutton, 6 S.W.3d 11 (Tex. Civ. App. 1999). A roadway ran through two Texas ranches out to a public road. Litigation ensued when the county government sent the ranch owners a letter claiming public ownership of the roadway and demanding gates locked across the roadway (at one ranch for over twenty years) be unlocked.

The county contended that using a roadway by persons other than the owner cannot be "hostile" if the roadway is concurrently being used by the servient owners. The trial judge imposed a requirement that the use by the prescriptive claimants be "exclusive."

On appeal the court acknowledged some disagreement in the Texas cases on the point, but departed from other appeals courts that had concluded that a prescriptive use can arise when the users are making a use with a claim of right, even though the owners are making a concurrent use.

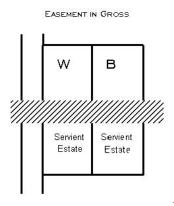
To evaluate the claimed implied dedication, the court analyzed uses of the roadway of both a private and public (though permissive) nature. Although Texas had abolished the common law doctrine of implied dedication in 1981, the County could proceed with its claim of implied dedication, but only as it applied in 1981 just prior to the doctrine's abolition. Since the evidence presented equal inferences of both private and public ownership, the County did not meet the requirement that "some evidence" supported the jury's findings that the County had acquired title through implied dedication. This holding occurred even though the County had paid to maintain both private and public roads, so the County's acceptance of maintenance responsibilities of that road over the years constituted no evidence of dedication to the public use.

B. Easements - In General.

There are three common types of easements:

1. Easement in gross.

An easement in gross is attached to an individual person or legal entity rather than a parcel of real estate served by the easement. This easement can be personal (an easement to use a boat ramp) or commercial (an easement given to a pipeline company to build and maintain a pipeline across property). Easements in gross are not favored, and, an easement will not be presumed to be in gross if it can fairly be construed to be an easement appurtenant. Wallace V. McKinzie, 869 S.W.2d 592 (Tex. App.--Amarillo 1993, writ denied). In earlier times, easements in gross were neither assignable nor inheritable, but today, most courts hold commercially-oriented easements in fee are freely alienable.



An exclusive easement in gross for pipelines may be partially alienated (and partially retained) by the easement holder if the resulting use does not burden the affected land beyond that contemplated in the original grant. Orange County v. Citgo Pipeline Co., 934 S.W.2d 472 (Tex. App. -- Beaumont 1996, writ denied).

The appellate court found that, not only was there no additional burden, but also the original grant's provision for payments for additional lines could work an advantage to the owner of the burdened land.

Although Texas law was far from certain on the question of the assignment and division of easements in gross, the court distinguished many Texas cases in its effort to clarify the law and come up with a clear rule. The court concluded that the grantor of an exclusive easement surrenders all rights to conduct the activities in the easement. While this may be a good conclusion regarding pipeline easements, other courts might quarrel with this degree of exclusivity as to easements of a more general character, such as access easements

Even though there was no statement in the granting instruments that the rights conferred were exclusive, the court concluded they were, based upon more general language that arguably would not compel the same construction in a different context:

"Both of the easement grants in this case contain language that retains in the grantor the full use and enjoyment of the premises, "except for the purposes hereinbefore granted to the said Grantee ..." Because [grantor] did not retain the use of the premises for pipeline purposes, we conclude that the easement in question is an exclusive easement."

On the basis of this reading, the court proceeded to the conclusion that the easement owner, with exclusive rights, had the right to apportion those rights among others. The court also stressed that the easement provided for additional compensation to the servient owner for additional pipelines.

"Under this exclusive easement, [grantor] receives payment for every additional pipeline. Consequently, the increase in use is advantageous to it. Therefore, as previously noted, there is a strong inference that the easement was intended in its creation to be apportionable. Id. We find this authority from the Restatement of Property to be consistent with the principles of law as previously set forth in this opinion."

The court also distinguished other troublesome Texas cases because they did not involve such compensation rights. It remains unclear, following this opinion, whether an exclusive commercial easement that does not involve a separate payment per unit of use would be viewed as divisible and assignable.

2. Easement appurtenant.

An appurtenant easement belongs to the owner of the land that benefits from the easement. This is the dominant tenement, which is the plot of land to which the benefit an appurtenant easement is attached. Second, there is the servient tenement, which is the plot

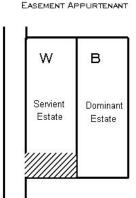
of land which bears the burden of the easement.

An example of an easement appurtenant would be an easement allowing you to drive over your neighbor's property to reach your property.

An appurtenant easement attaches to a tract of land. Whoever owns a tract has the right to cross another's land for access. The tract being crossed is the servient estate. The tract being served is the dominant estate. When the title is transferred, the easement typically remains with the property.

3. Prescriptive Easement.

Easements by prescription, also called prescriptive easements, are implied easements that give the easement holder a right to use another person's property for the purpose the easement holder has used the property for a certain number of years, which varies from state to state. Prescriptive easement doctrine is not the same as adverse possession doctrine, which



allows someone to acquire ownership of the title to a property by asserting possession of the property for the legally required period; in most states, additional requirements apply. In Texas, the adverse possession statute requires the "adverse possessor" to assert possession of the property, have color of title AND pay property taxes for at least three years to benefit from the earliest eligibility for adverse possession. Prescriptive easements are a type of implied easement in that they arise even though they are not expressly created or recorded. Unlike other implied easements, however, prescriptive easements are hostile (i.e., without the consent of the true property owner). Prescriptive easements do not convey the title to that property, only the right to utilize the property for a purpose. They often require less strict requirements of proof than fee simple adverse possession.

Once they become legally binding, easements by prescription hold the same legal weight as written or implied easements. Before they become binding, they hold no legal weight and are broken if the true property owner acts to defend his ownership rights by granting a personal license to the use. If the true property owner acts to defend his property rights during the required time period the hostile use will end, claims on adverse possession rights are voided, and the continuous use time period resets to zero.

Some traits are common to most prescription laws. The use must be open (i.e. obvious to anyone), actual, continuous (i.e., uninterrupted for the entire required time period), and adverse to the rights of the true property owner. The use also must be hostile and notorious (i.e., known to others). Unlike fee simple adverse possession, prescriptive easements rarely require exclusivity. (But see Real v. Sutton, supra).

Government owned property held for common use is immune from prescriptive easements usually, but some other types of government owned property may be subject to prescription in certain instances.

Prescription may also end an existing legal easement. If a servient tenement holder erected a fence blocking a legally deeded right-of-way easement, the dominant tenement

holder would have to act to defend his easement rights during the statutory period or the easement might cease to have legal force, even though it would remain a deeded document. Right-of-way for access is among the most common easement by prescription.

Subsequent parties in the same position to the land using the right of way adversely can add up the time to meet the required statute of limitations. This situation is tacking. A prescriptive easement usually need not be exclusive; it can be shared among several successive users.

In Exxon Corporation et al. v. Joyce Schutzmaier 537 S.W.2d. 282 (Tex. Civ. App. -- Beaumont 1976, no writ) Exxon Corporation appealed from a judgment rendered in favor of Joyce Schutzmaier and her husband, which found that an easement existed across Exxon's property for the benefit of the Schutzmaiers, which extended from an express easement, earlier given their predecessors in title, to a public highway.

In 1949, Thomas E. Brawner (Joyce Schutzmaier's father and predecessor in title) purchased 173 acres from V. L. Peterson. This land was adjacent to a tract of land owned by Exxon purchased in two separate conveyances from George L. Dew in 1931 and H. W. Dew in 1932. The Exxon tract is located between Brawner's land and a public highway. The sole means of access from the Brawner tract to the public highway was with a semicircular road, which looped from the highway through Exxon's property and came within 600 feet of Brawner's tract -- the road being Loop Road. To obtain a means of ingress and egress to his property, Brawner obtained from Exxon in 1950 a written easement extending for 600 feet from his property to Loop Road. Brawner used Loop Road without interference for a period of 22 years, at which time he conveyed this land to his daughter and her husband, the Schutzmaiers. At no point does the Brawner tract abut on the public highway or on Loop Road, except on the latter with the express easement.

To establish an easement by implication, it was incumbent upon the plaintiffs to prove (1) there was originally a unity of ownership between the dominant estate [the Brawner tract] and the servient estate [the Exxon tract]; (2) that the use must have been apparent at the time of the grant to the dominant estate; (3) that using the easement was continuous so that the parties intended its use to pass by grant; and (4) that the easement must be reasonably necessary to the use and enjoyment of the dominant estate. See, Drye v. Eagle Rock Ranch, Inc., 364 S.W.2d 196, 207-208 (Tex. 1962); Bickler v. Bickler, 403 S.W.2d 354, 357 (Tex. 1966).

While strict adherence to the four requirements of an implied easement has been criticized, the weight of authority supports such a construction. Westbrook v. Wright, 477 S.W.2d 663, 665-666 (Tex. Civ. App. -- Houston [14th Dist.] 1972, no writ); Johnson v. Faulk, 470 S.W.2d 144, 148 (Tex. Civ. App. -- Tyler 1971, no writ).

4. Permissive Easements.

A permissive easement is an authorization to use the land of another. It is essentially a license, which is fully revocable by the property owner. To be completely certain that a permissive easement will not morph into a prescriptive easement, some landowners erect signs stating the grant of the permissive easement or license. Such signs, often found on private roadways, typically state: "This is a private roadway. Use of this road is permissive

and may be revoked by the owner."

III. THE SURFACE OWNER AS LESSOR OF THE MINERALS

If the lessor owns the surface of the drill-site tract, and if he neither expressly limits nor grants to the lessee access rights to the leasehold premises can the lessee use whatever means of access the lessor uses to obtain access to the leasehold premises? This inquiry entails an investigation into the rights of the surface owner to make entry upon his land and, undertaken and conducted properly, it may require an investigation into the title of the tracts which the lessor uses to obtain access to his property, unless the lessor's land borders on a public street or roadway.

If the surface owner has a right of access to his land, it will have been acquired either through a dedication, or an express or implied easement. Following is a discussion of those various means of access and of various characteristics, attributes and limitations associated with those means of access.

A. Affirmative Easements

An affirmative easement is a requirement to do something, such as allowing another access to or across a certain piece of property. Most easements fall into this category.

B. Negative Easements

A negative easement is a promise not to do something with a certain piece of property, such as not building a structure over one story high or not blocking a mountain view by constructing a fence. Restrictive easements are also called "negative easements," as their "use" is normally prohibitive, such as a common "non-vehicular access" easement as shown along a main thoroughfare where the governmental entity must restrict access. Therefore a restrictive easement is a condition placed on land by its owner or by government that limits its use, usually regarding the structures which may be built there or what may be done with the ground itself. Restrictive easements are frequently placed on wetlands (i.e., a conservation easement) to prevent them from being destroyed by development.

The primary difference between restrictive ordinances and restrictive easements is local ordinances are discretionary and can be removed and a restrictive easement runs with the property usually forever.

C. Profit a Prendre

A profit is a special type of easement that permits the profit-holder to come onto the property of another and remove fruits, vegetables, timber and "fugacious minerals" (minerals that are movable) such as gas or oil; by comparison, coal, which does not move, would not be considered a fugacious mineral. The rights of the profit-holder depend on the document that created the profit.

D. Express Easements

An express easement is created by a deed or by a will. An express easement can also be created when the owner of a certain piece of property conveys the land to another but saves or reserves an easement in it. Being interests in land, easements fall within the scope of the Statute of Frauds and can only be expressly created by deed or grant. Miller v. Babb, 263 S.W. 253 (Tex. Comm'n App. 1924, opinion adopted).

The typical oil and gas lease and mineral grant (or reservation) and an occasional royalty grant (or reservation) will expressly provide for certain easements of the lessee or mineral or royalty owner in the surface. The scope of such express easements varies considerably. A royalty owner may be given an easement of ingress and egress to well locations so he may inform himself concerning the state of exploration, development and production operations. Mineral owners and lessees are usually given more extensive easements because their operations require using the surface for a well site or sites, machinery, pipelines and roads.

Regardless of the rights afforded the mineral owner under either an express or implied easement, increasingly governmental entities at all levels are regulating land use, including mineral extraction activities. Where such surface regulation becomes "excessive," mineral owners have brought inverse condemnation claims with varying degrees of success.

An occasional instrument provides that the mineral or royalty owner or lessee shall have no surface easements. The oil and gas in place can be removed only with surface operations on other premises or by pooling the property.

Compensation to the surface owner for damages caused by oil and gas exploration on premises owned by a state or other political subdivision is required under some statutes. Several states have enacted surface damages acts requiring operators to compensate surface owners for future use of land, the market value of crops destroyed and diminution in the value of the surface.

Under the usual rules applicable to the relationship of the owners of dominant and servient estates, the owner of the dominant estate, that is, the mineral owner or lessee, must enjoy his easements with due regard to the interests of the owner of the servient estate, that is, the surface estate. There is substantial evidence of an increasing concern for the interests of the owner of the servient surface estate.

E. Unwritten Easements.

If dedicated roadways, express easements or public rights of way are not available, an unwritten easement may be. One caution, however, in dealing with any type of easement other than an express easement there may be a problem of proof of the elements necessary to establish the easement claimed. An example of the difficulty which can be encountered in proving unwritten easements is the recent case of Heard v. Roos, 885 S.W.2d 592 (Tex. App.--Corpus Christi 1994, no writ), wherein the plaintiff attempted to establish an easement across lands of adjoining land owners which involves facts which occurred beginning over 70 years ago, the Corpus Christi Court of Appeals upheld the trial court's judgment in favor of the defendant and denied plaintiff access both under theories of an

implied easement and easement by necessity, because the plaintiff failed to present evidence to support either of his theories .

1. Implied Easements.

At common law certain distinctions were drawn between the implication of easements with the conveyance of the alleged dominant premises (implication of easements by way of grant) and in the case of the conveyance of the alleged servient premises (implication of easements by way of reservation). The courts appeared more ready to imply an easement by way of grant than by way of reservation because of the constructional preference for construing deeds in favor of the grantee. Application of these common law principles to the conveyance or reservation of interests in minerals would mean that the courts would be less likely to imply surface easements in favor of a grantor who retains the alleged dominant estate (that is, where a grantor conveys the land, excepting or reserving an interest in the minerals) than in favor of a grantee granted the dominant estate (that is, where a grantor conveys an interest in the minerals, retaining an interest in the surface).

The courts of most oil producing states have apparently adopted this conclusion; the matter is rarely discussed in the opinions although surface easements have been implied both with grants and in reservations of interests in minerals. The instrument creating the mineral, royalty or leasehold interest may be completely silent concerning surface easements. In such case it has been held such surface easements are implied as will permit the lessee or mineral owner to enjoy the interest conveyed. Hence, the lessee or mineral owner, by implication, may use the surface of the land as is reasonably necessary for exploration, development and production of minerals.

One form of unwritten easement is the implied easement or easement by implication. As stated by the Texas Supreme Court in Drye, 364 S.W.2d 196, certain requirements exist before a court may find an easement by implication to be in effect. Those requirements are:

- (a) The use must be apparent and in existence at the time of the grant. A road into or out of the granted area, a stairway to a second story dwelling, a party wall, a drain or aqueduct.
- (b) Its use must have been continuous so that the parties must have intended its use pass by the grant. Sometimes, the view is taken the use is 'continuous' if no further act of man is necessary to its continuous existence; i.e. neither the grantor nor anyone for him will have to perform any act in order that the grantee may obtain the benefit of the alleged easement. Included within the concept of 'continuous' is that degree of conspicuousness and apparentness that indicates permanency.
- (c) Its use must be necessary to the dominant estate. A water or sewer line into the granted estate; a drain from the land; a way to and from the estate granted; light and air; lateral support; and it has been held often, water. In the great majority of the cases in which easements have been implied, the necessity has been economic or physical necessity for the land rather than some merely desirable right for the occupant of the land.

Further elaborating on the meaning of the requirement that an implied easement must be "continuous," Justice Greenhill explained that a "discontinuous easement" requires the act of man to complete it. Likewise, regarding the necessity, the court referred to Mitchell v. Castellaw, 151 Tex. 246; 246 S.W.2d 163 (Tex. 1952), and explained the requirement is one of strict necessity rather than "reasonable necessity," for the reason that courts do not lightly hold the grantor to convey more than stated in his deed. Finally, regarding the "apparentness," the court indicated that "some degree of definiteness in the scope or extent of the interest is essential to its recognition as an interest in land or a property interest," referring to an example given in the Restatement of Property as follows:

"An example of the first sort [definite] is the right of way with prescribed boundaries, of the second [indefinite], the privilege of strolling at pleasure through a field. . . . When a use has not the degree of definiteness necessary to the creation of an easement, the privilege to make it can be nothing more than a license."

2. Easement by Estoppel

One who attempts to create an easement by estoppel must show that:

- (a) a representation must have been communicated to the promisee,
- (b) it must have been believed, and
- (c) there must have been reliance upon such communication. Doss v. Blackstock, 466 S.W.2d 59, 61 (Tex. Civ. App. -- Austin 1971, writ ref'd n.r.e.).

But the doctrine of easement by estoppel (or estoppel in pais as sometimes referred to) has not been applied with the same strictness and conclusiveness as easements by implication. As has been said by the Supreme Court, "The exact nature and extent of the doctrine of estoppel in pais have not been clearly defined." Drye v. Eagle Rock Ranch, Inc., (364 S.W.2d at 209). In certain situations, some have suggested that the cases should more properly be based upon constructing the surrounding circumstances. Drye v. Eagle Rock Ranch, Inc., supra.

In North Clear Lake Development Corp. v. Blackstock, 450 S.W.2d 678 (Tex. Civ. App. - Houston [14th Dist.] 1970, writ ref'd n.r.e.), the court, in finding an easement by estoppel, also considered that improvements made were permanent and substantial, that such improvements were open and obvious to the owner of the servient estate, that the servient estate had constructive notice of the activities of the dominant estate holders, and that such use and improvements had the tacit consent of the servient estate owners because there was no complaint made when the improvements were constructed.

A party who obtains an easement is not entitled to use all means of access to their property by way of the servient estate. "The use of such an easement is limited to those uses which are reasonably necessary and convenient and as little burdensome to the servient estate as possible, for the use of the right granted." Bland Lake Fishing and Hunting Club v. Fisher, 311 S.W.2d 710, 717 (Tex. Civ. App. -- Beaumont 1958, no writ); Coleman v. Forrister, supra (514 S.W.2d at 903); see also, Parshall v. Crabtree, 516 S.W.2d 216, 219 (Tex. Civ. App. -- San Antonio 1974, writ ref. n.r.e.).

3. Easements by Necessity

The courts will find an "easement by necessity" if two parcels are so situated that an easement over one is strictly necessary to the enjoyment of the other. The creation of this sort of easement requires that at one time, both parcels of land were joined as one or were owned by the same owner. That using the easement is a necessity and the necessity existed when the two estates were severed. Estate of Waggoner v. Cleghorn, 378 S.W.2d 47 (Tex. 1964). Prior use of the easement, however, is not required. The most common example of an easement by necessity is landlocked property, so access to a public road can only be gained by having a right of way over an adjoining parcel of land. The legal theory is the landlocked parcel was accidentally created, and the owner forgot to include an easement appurtenant to reach the road.

Similarly, parcels without access to a public way may have an easement of access over adjacent land, if crossing land is necessary to reach the landlocked parcel. There is an implied easement arising from the original subdivision of the land for continuous and obvious use of the adjacent parcel (e.g., for access to a road, or to a source of water). This easement is extinguished upon termination of the necessity (like if a new public road is built adjacent to the landlocked tenement). An easement by necessity is distinguished from an easement by implication in that the former easement arises only when "strictly necessary," whereas the latter can arise when "reasonably necessary."

However, the landlocked owner might be required to obtain a license for a new commercial use or to cause damage during access (e.g., a logging road or blazed trails). Some states, also, frown on granting easements by necessity when the need was created by the owner's own actions, say, by selling off plots of land resulting in a landlocked parcel.

Some U.S. state statutes grant a permanent easement of access to any descendant of a person buried in a cemetery on private property.

F. Conditions Subsequent.

An easement subject to a condition subsequent, such as failing to use the easement for a stipulated period of time or for the purposes named within the time mentioned, will terminate upon the occurrence of the condition subsequent, Smith v. Shuler, 258 S.W.2d 158 (Tex. Civ. App.--Eastland 1953, no writ), although, normally, the grantor's reentry or equivalent action is necessary to terminate the easement. Vincent v. Gurley, 27 S.W.2d 260 (Tex. Civ. App.--Waco 1930, no writ). Similarly, case law holds that if the language of the grant gives the grantee and express right over the one used, such right would still exist notwithstanding exercising a lesser privilege. Knox v. Pioneer Co., 321 S.W.2d 596 (Tex. Civ. App. -- El Paso 1959, writ ref'd n.r.e.).

G. Other Termination Events.

Express easements can also be subject to termination by other means such as by foreclosure of a superior mortgage or deed of trust, loss through adverse possession of the servient estate, abandonment of the easement, change in use amounting to an abandonment (Jones v. Fuller 856 S.W.2d 597 [Tex. App.--Waco 1993, no writ]) and completion of the purpose for which the easement was granted.

Unlike other types of interests in land, easements may be terminated by abandonment under certain circumstances. Stating a desire to abandon the easement is not be enough. Words alone legally cannot constitute abandonment. However, if the easement holder intends to abandon an easement and also takes actions which manifest that intent, that shows abandonment of the easement, and it can be terminated. One action that qualifies as manifesting intent is non-use of the easement for an extended period of time, despite the holder of the easement's having had an extended period of access to the easement.

H. Easement Benefits Only the Dominant Estate.

One trap for the unwary lies in failing to ascertain the identity of the dominant estate. The roadway may run to the land, but if the easement does not create a right of passage to the land, then access will be denied. As stated by the Texas Supreme Court in Bickler v. Bickler, 403 S.W.2d 354 (Tex. 1966), quoting from 2 Thompson on Real Property, 1961 Replacement Edition:

"Rights of way granted or reserved are appurtenant to the dominant estate, and can be used only for the purposes of that tenement.... One having a right of way appurtenant to specific land cannot lawfully use the way to reach another tract owned by him to which the way is not appurtenant.... The way is granted for the benefit of that land, and its use is limited to such land. Its use cannot be extended to other land, nor can the way be converted into a public way without the consent of the owner of the servient estate."

For instance, an easement which exists across Whiteacre for the benefit of Blackacre may not be used (without express authority) to benefit Greenacre which lies adjacent to Blackacre. Although using the easement across Whiteacre may access Blackacre, the easement may not be used to access Greenacre by way of Blackacre. For an example of this situation, see Storms v. Tuck, 579 S.W.2d 447 (Tex. 1979), wherein the Texas Supreme Court held that the owners of Whiteacre, in the above situation, would be entitled to an injunction permanently restraining the owner of Blackacre from utilizing the easement across Whiteacre to obtain access to Greenacre.

I. Validity of the Grant.

One practical problem with express easements is that the title information for evaluation of the easement may not be readily at hand since the servient estate may not be a part of the "subject lands." Absent a separate examination, the validity, nature and existence of, and extent of, the easement may be taken for granted. This leads to potential problems When, for one reason, the grantor of the easement did not have the authority to execute the easement, as when the party executing the easement grant may not have had the authority when acting in a representative capacity, to grant the easement. Another concern would be in the situation in which there are co-tenants and less than all of the co-tenants have joined in the execution of the easement grant. See Elliott v. Elliott, 597 S.W.2d 795 (Tex. App.--Corpus Christi 1985, no writ). Finally, in certain rare situations, an express easement, although valid may be void if it contravenes a statute or is against public policy. Carrithers v. Terramar Beach Community Improvement Association, 645 S.W.2d 772 (Tex. 1983), cert. denied, 464 U.S. 981 (1983).

J. Rights, Duties and Obligations of Easement Owners.

Assuming an easement has been established in favor of the surface owner, either an express easement or otherwise, there are certain rights and restrictions related to the ownership of an easement.

1. Limitation on Extent of Use.

The easement documents should always be reviewed for limitations on use even though misuse alone does not constitute a premise for termination of an easement. Perry v. City of Gainesville, 267 S.W.2d 270 (Tex. Civ. App.--Fort Worth 1954, writ ref'd n.r.e.). Misuse is, however, grounds for injunction, and the owner of the servient estate will be entitled to enjoin unauthorized use of the property.

As expected, an easement owner's right to use the servient estate implies a grant of unlimited reasonable use such as is reasonably necessary and convenient and as little burdensome as possible to the servient owner. Coleman v. Forrister, 514 S.W.2d 899 (Tex. 1974). In express grants, the language of the grant and any limitations will limit the extent of use to which the owner of the dominant estate may subject the servient estate. See Phillips Natural Gas Co. v. Cardiff 823 S.W.2d 314 (Tex. App.--Houston [1st Dist.] 1991, writ denied). With unwritten easements, the use will be limited to that reasonably necessary and convenient. Mere convenience to the owner of the dominant estate will not support using a means of access over the servient estate and that the means must be reasonably necessary as opposed to merely convenient. Exxon Corporation v. Schutzmaier, 537 S.W.2d 282 (Tex. App.--Beaumont 1976, no writ). See also Parshall v. Crabtree, 5 16 S.W.2d 216 (Tex. Civ. App.--San Antonio 1974, writ ref d n.r.e.), and Sisco v. Hereford, 694 S.W.2d 3 (Tex. App.--San Antonio 1984, writ ref'd n.r.e.). Although the language in the above case appears to conflict with the language of the supreme court in the Coleman case as regards the ability of the owner of the surface estate to use a means which was "convenient" as opposed to "necessary," the case should be helpful in bringing to light the fact that when the use is not "reasonably necessary," the courts will probably be very reluctant to allow the use to continue unless there is an express grant and the language in the grant clearly supports such use.

The case of Allen v. Keeling, 615 S.W.2d 253 (Tex. 1981), stands for the proposition that when an easement is established by prescription; the easement is not limited to the beaten path used, but includes the land, where reasonably available for drainage ditches, repairs, and the convenience of the traveling public. See also Robinson Water Company v. Seay, 545 S.W.2d 253 (Tex Civ. App.--Waco 1976, no writ); Haby v. Hicks, 61 S.W.2d 871 (Tex. Civ. App.--San Antonio 1933, no writ).

Occasional cases have found an excessive use of surface easements by the owner of minerals or a lessee but such instances are relatively rare. Excessive use has been found by:

Constructing a system of roads to well locations in excess of the reasonable needs of the lessee; occupation of more surface than was reasonably necessary for the full enjoyment of the minerals; maintenance of pumping units over seven feet in height interfering with the landowner's use of an automatic sprinkler system; negligent conduct with equipment which

has outlived its usefulness and has become so deteriorated it is no longer fit for the use to which it is being put inflicting surface damage from leaking oil; taking water when not authorized or over the amount authorized to be taken; and use of a portion of the surface with operations on other premises.

An occasional case has awarded damages to the surface owner for surface use by the mineral owner or lessee without indicating in what respect the particular use was viewed as excessive. There may be excessive use of easements when a mineral owner or lessee uses a portion of the surface with the enjoyment of his mineral rights in other land even though no more surface is taken by the lessee for his joint operation of the demised premises and the adjoining premises than would have been required for his operations on the demised premises alone. In such instances only nominal damages would be recoverable in an action of trespass; under such circumstances the surface owner may seek to enjoin the excessive use or seek to recover the value of use and occupation. Normally the owner of the servient premises may protect himself from excessive use of easements by self-help, an action in trespass or an appeal to equity for an injunction. The burden of proof is initially upon the person asserting excessive use.

Violation of conservation agency rules or regulations governing surface use may provide the basis for a negligence per se claim by the surface owner. Where the negligence per se doctrine is not applicable, whether a trespass occurs does not require using expert testimony, since lay testimony determines the reasonableness of the surface use. To claim that a trespass occurs, the surface owner must show the mineral owner's conduct is unreasonable and outside the scope of the express or implied easement of surface use.

There is authority for a so-called "accommodation doctrine," requiring that the needs of the surface use be accommodated by the dominant estate when there is available to the mineral owner an alternative non-conflicting use of the servient premises. The burden of proof in this issue is upon the surface owner.

Texas blazed the trail in developing accommodation theory by advancing the prototypical doctrine in Getty Oil Company v. Jones, 470 S.W.2d 618 (Tex. 1971). Jones, the surface owner, used a self-propelled irrigation system requiring seven feet of surface clearance to water his cotton fields. Getty Oil, one of several mineral owners, installed two oil pumps exceeding seven feet in height that obstructed the operation of Jones' machine. Two other oil companies produced oil from underneath Jones' land without interfering with his irrigation system: Amerada Petroleum used hydraulic pumping units only a few feet high, and Adobe Oil sunk beam-type units similar to those used by Getty into concrete cellars to provide clearance for Jones' system. The lease granting out Getty's mineral estate did not specify the type of oil pumps that could be installed on the land, but it contained a clause requiring the mineral owner to bury any pipelines below ordinary plow depth, which could be construed as evidence of intent to allow farming to exist in tandem with mining.

Jones sued to enjoin Getty's use of the pumps and for damages, and Getty argued that the easement required by its pumps met the long-established reasonably necessary limitation on mineral estate dominance. The court was not persuaded by Getty's argument, and stated: [W]here there is an *existing use* by the surface owner otherwise precluded or impaired, and where under the established practices in the industry there are alternatives available ... whereby the minerals can be recovered, the rules of reasonable usage of the

surface may require the adoption of an alternative by the [mineral owner].

To realize maximum benefit from both surface and mineral lands, the court assigned the surface owner a right "to an accommodation between the two estates." The court stressed this accommodation does not entail balancing surface owner harm or inconvenience against mineral owner options; instead, the surface owner must prove the mineral owner's surface use is not reasonably necessary by showing reasonable mining alternatives exist. If the surface owner cannot carry this [W]here a severed mineral interest owner or lessee asserts rights to the surface that will substantially impair existing surface uses, the mineral owner or lessee must accommodate the surface uses if he [or she] has reasonable alternatives available [T]he accommodation principle is limited by three requirements:

- (1) there must be an existing surface use;
- (2) the proposed use must substantially interfere with the existing surface use; and
- (3) the lessee must have reasonable alternatives available.

By structuring the accommodation doctrine so reasonable alternative mining methods is a question of fact that must be proven by the surface owner, the Texas Supreme Court preserved the dominant status of the mineral estate.

Two additional recent cases are of interest. The first because it raises the question of "what does 'in use' mean" in the context of a pre-existing, recurring but temporary use by the surface owner.

Merriman vs. XTO Energy, Inc., No. 10-09-00276-CV, 2011 WL 1901987 (Tex. App.-Waco May 11, 2011, Review Granted). This is a case pending before the Texas Supreme Court. The land owner is a pharmacist who has a cattle operation as a hobby or side interest. He runs cattle on several tracts including a forty acre tract that serves as his homestead. Once a year he erects temporary fencing and brings all of his cattle on to that tract for sorting. XTO drilled and completed a gas well on his property. Merriman sued seeking a permanent injunction requiring XTO to move the gas well to a new location. The Trial Court granted summary judgment for XTO and the Waco Court of Appeals affirmed. The Court of Appeals acknowledged the mineral estate is the dominant estate, but recognized it was limited by the Accommodation Doctrine. The Court of Appeals held that the Accommodation Doctrine did not require XTO to move its gas well because Merriman "had reasonable means of developing his land for agricultural purposes".

Merriman's challenges could conceivably result in in changes by the Texas Supreme Court to the whole nature of the Accommodation Doctrine. An interesting side note is that XTO and at least one Amicus Curie suggest that the Pattern Jury charge developed by the Oil and Gas Counsel for the State Bar of Texas is inaccurate.

The second case raises the question of what is the threshold for a mineral lessee to invoke the Accommodation Doctrine to dominate the surface estate through by an implied easement.

Key Operating & Equipment, Inc. vs. Haggar, No. 01-10-00350- CV, 2013 WL 103633 (Tex. App.- Houston [1st Dist.] January 7, 2013, N.P.H.)

This is another recently decided case that employed the Accommodation Doctrine but arguably in a manner in which it is not applicable. Key Operating operated wells on two (2) tracts of land called the Richardson tract and the Rosenbaum-Curbo tract. Key Operating built a road across a sub-part of the larger Rosenbaum-Curbo tracts, which as the parties referred to as the Curbo tract and used that road to operate wells on both the Curbo and Richardson tracts. Key Operating's Curbo tract wells eventually stopped producing and its lease for the larger Rosenbaum-Curbo tract terminated.

Key Operating's principals acquired a 1/16 interest in the Curbo tract's mineral estate and leased their interest to Key Operating. The lease authorized pooling. Key Operating then pooled its mineral interest in the Richardson and Curbo tracts. Key Operating continued using the road on the Curbo tract to access other wells producing from pooled acreage. The Haggars owned the surface estate and a one fourth mineral interest in a Curbo tract. Haggars sued Key Operating for trespass and sought a permanent injunction against Key Operating's continued use of the road.

The Houston Court of Appeals held that the lease Key Operating's principals entered into with Key Operating was not part of the Haggars' chain of title and, therefore, could not contractually expand Key Operating's right to use their surface. The court found that Key Operating had the right to use the Curbo tract's surface to produce oil from beneath that surface and could continue using the road so long as that road was being used to access wells producing oil from beneath the Curbo tract.

The Court of Appeals found that Key Operating had an implied surface easement that authorized the use and construction of the road. Whether that road could access wells on other tracts was subject to the Accommodation Doctrine. The court reached that conclusion based upon three factors:

- (1) the nature of the implied surface easement,
- (2) practical and public policy considerations, and
- (3) analogous cases.

The court interpreted the Accommodation Doctrine to require Key Operating to exercise its surface rights with due regard for plaintiff's interest which meant that if using the road benefitted the Curbo mineral estate, it could continue using the road. Because the Trial Court found that the oil being produced was coming solely from other tracts and not from beneath the Curbo's property, it held that Key Operating had no implied easement and, therefore, could not use its road to access those wells.

The accommodation doctrine carefully preserves mineral estate dominance by assigning the burden of proving the existence of mining method alternatives to the surface owner, and by providing that if no reasonable alternative exists, the mineral owner may implement his or her proposed surface use despite it interfering with the surface owner's use of his or her land.

Related to the question of excessive use of easements vel non by the mineral owner or lessee is the right of the mineral owner or lessee to determine well locations. Absent showing bad faith, the courts appear ready to accept his judgment as to the appropriate location of the well even though the surface owner would prefer some other location. However, its control over well locations may not be an instrument of blackmail to force the surface owner to pay an exorbitant price to free a location not reasonably necessary to exploration and development from the easement enjoyed by the mineral owner or lessee.

2. Whether surface easements of mineral owner or lessee are exclusive

Once it is determined that a mineral owner or lessee has certain surface easements, the question may then arise whether such easements are exclusive or non-exclusive, that is, whether the surface owner or claimants through him may also enjoy such surface use as encompassed by the surface easements of the mineral owner or lessee.

As has been indicated, where the mineral owner or lessee is entitled to surface easements, the mineral estate or leasehold is the dominant estate and the surface estate is servient to it.

In most respects the surface easements of the mineral owner or lessee are not exclusive and therefore the surface owner and the mineral owner or lessee may be entitled to make identical uses of the surface. Under appropriate circumstances, the surface may be utilized by the mineral owner or lessee in housing employees. Obviously the surface owner is entitled also to use the surface for housing.

Where the surface use by the mineral owner or lessee and by the surface owner conflict, then the right of surface use by the mineral owner or lessee prevails. The surface owner or claimants through him may not use the surface as will prevent the mineral owner or mineral lessee from enjoying surface use reasonably necessary to exploration and development of the minerals.

Arguably the mineral owner or lessee should be viewed as having exclusive surface easements in so far as the surface relates to the exploration, development, processing, storage and transportation of minerals. However, the surface owner has been held authorized to use the surface for storage and transportation related to mineral operations, absent interference with the reasonable surface use of the mineral owner or lessee.

3. Co-Owned Estates.

Greater difficulty is presented when the surface owner's use of the surface directly involves exploration for or development of minerals. By directional drilling methods it may be possible to surface a well on one tract (Whiteacre) and bottom the well under another (Blackacre) when a well location cannot be made upon Blackacre. Under these circumstances, if the minerals in Whiteacre have been severed by deed or lease, the question may arise whether the surface owner may authorize the lessee or mineral owner of Blackacre to utilize Whiteacre for the surface location of a well to be bottomed under Blackacre.

Ownership of minerals may have been severed from ownership of the surface of Whiteacre followed by an oil and gas lease executed by the mineral owner. Three persons have interests in Whiteacre; A, the surface owner; B, the mineral owner; and C, the oil and gas lessee. In addition there may be an outstanding royalty or overriding royalty interest owned by D. The interest of A, B and/or C may be an undivided interest, that is, A may be a concurrent owner with A-1 of the surface, B a concurrent owner with B-1 of the minerals, and C a concurrent owner with C-1 of the leasehold. Under such circumstances if the lessee or owner of minerals in Blackacre seeks to obtain consent to a surface location on Whiteacre for a well to be bottomed under Blackacre, whose consent must he obtain?

The consent of the surface owner should be required for operations on Whiteacre to explore for and developing minerals in Blackacre, whether such operations are a geophysical survey or a surface location of a well. The consent of the surface owner may be evidenced by a lease or deed severing minerals in Whiteacre, e.g., such instrument may authorize the mineral owner or lessee to use the surface of Whiteacre for operations on other premises.

4. Relocation of Easements.

A corollary to the limitation on use discussed above deals with is the right to relocate an easement. Absent express authority under the grant or consent of the owner of the servient estate, the owner of the dominant estate will not have the right to relocate an easement as a matter of convenience, his remedy being to restore the old easement as opposed to relocation. See Sisco, 694 S.W.2d 3; see also Harris V. Phillips Pipeline Company, 517 S.W.2d 361 (Tex. Civ. App.--Austin 1974, writ ref'd n.r.e.).

5. Lateral and Subjacent Support.

The owner of the easement is entitled to the lateral and subjacent support to enable the owner of the dominant estate to utilize the easement for the purposes intended. San Jacinto Sand Company, Inc. v. Southwestern Bell Telephone Company, 426 S.W.2d 338 (Tex. Civ. App.--Houston [14th Dist.] 1968, writ ref'd n.r.e.), cert. denied, 393 U.S. 1027 [1969]).

6. Conflicting Uses between Dominant and Servient Estate.

Although the owner of the dominant estate is not entitled to exclusive use of the surface on which the easement is located, the owner is entitled to freedom from conflicting uses by the owner of the servient estate which impedes or hinders the purposes for which the easement has been granted. Gerstner v. Wilhelm, 584 S.W.2d 955 (Tex. Civ. App.-Austin 1979, writ dism'd).

The easement owners' rights in the easement are nonexclusive, establishing potential conflicting uses. Obviously, under express easements, the instrument creating the easement may set out many of the rights of the owner of the dominant estate and the owner of the servient estate. Apart from the general statement of the law that the owner of the dominant estate has the right to do such things as are reasonably necessary or convenient for the full enjoyment of the easement granted, case law has provided certain additional guidelines as regards the rights of the respective estate owners. In Phillips Pipeline Company v. Rao, 420 S.W.2d 691 (Tex. 1967), the supreme court reiterated prior case law

that pipeline operators have the duty to properly install their lines and to avoid dangers from occurrences such as leaks in the pipe which could result from others using the surface. This same reasoning should apply to the rights of owners of other types of easements. The owner of the dominant estate has an obligation to maintain and repair the easement, Brines v. Solomon, 769 S.W.2d 312 (Tex. App.-- San Antonio 1989, writ denied), unless the damage is done by the owner of the servient estate or someone acting under his authority. Similarly, the owner of the servient estate owes the duty of using its property in a manner that will not impair or destroy the paramount right of the owner of the dominant estate; on the other hand, the owner of the dominant estate owes the duty of using ordinary care not to injure the servient estate. See Jones v. Fuller, 856 S.W.2d 597. (Tex. App. -- Waco 1993, writ denied).

K. Access Against Surface Tenant

If the surface estate is subject to a grazing lease, a farm lease, or the like, the oil and gas lessee or the geophysical permittee will most probably encounter the surface tenant. The case of Ball v. Dillard, 602 S.W.2d 521 (Tex. 1980), confirmed the right of a lessee under an oil and gas lease executed subsequent to a surface lease regarding the same land to use as much of the premises and in such manner as reasonably necessary to comply with the lease and to effectuate its purposes. Ball, the surface lessee, locked the gate to the property denying Dillard, the oil and gas lessee, access to the leased premises. The court held that Ball had exceeded his rights under the lease and had unreasonably interfered with the right of Dillard, the mineral lessee. At least where access is concerned this case confirms the rights of the mineral lessee vis a vis the surface lessee irrespective of whether the surface lease is entered into before or after the execution of an oil and gas lease, and irrespective of whether the surface and minerals are under separate ownership. As with other situations involving conflicting uses of the surface and the mineral estate, the accommodation doctrine as established in Getty Oil Company v. Jones, 470 S.W.2d 618 (Tex. 1971) will apply, meaning that the mineral owner will be restricted to using the surface estate by the limitations of the "due regard" or "accommodation doctrine." One possible exception to the rule stated in the Ball case would be that if the surface lease has been executed for a term of years without restriction as to use, the tenant may have acquired rights which would be superior to a subsequent oil and gas lessee. Texas law appears to remain uncertain regarding this issue.

Of similar interest is the case of Mobil Pipeline Company v. Smith, 860 S.W.2d 157 (Tex. App. -- El Paso 1993, no writ), wherein the El Paso Court of Appeals addressed the rights of the owner of a pipeline right-of-way vis a vis a surface tenant on the same property. The El Paso Court of Appeals, indicating this was a case of first impression, noted that:

"even when the owner (of the surface) leases the surface, the owner retains a right to enter into agreements that affect the surface. ... But the lessee will be entitled to recover damages which result from an interference with the lessee's right to possession of the surface. If the land owner cannot interfere with the full enjoyment of the easement granted the lessee who takes knowing a landowner retains rights to grant a right of way, may not interfere with the rights granted. Otherwise, the owner of the servient estate can limit the rights granted to the owner of the dominant estate."

The Court held that the pipeline owner, having established an absolute right to enter upon the premises under its right-of-way agreement, was entitled to an injunction against interference by the surface lessee and that, upon final hearing, the trial court determined the crop damages to be awarded to the surface tenant.

L. Remedies

Texas courts have applied the traditional legal remedy of damages and the equitable remedy of injunctive relief in favor of both the owner of the dominant and the owner of the servient estate in appropriate cases. In City of Mission v. Popplewell, 294 S.W.2d 712 (Tex. 1956), the Texas Supreme Court dealt with the city contention of Mission that the defendant, Beulah Popplewell, should be required to remove a fence which obstructed an alleged public easement claimed by the city for the benefit of the public. One of Popplewell's arguments was the city's exclusive remedy was a trespass to try title suit. The court held that while sometimes, a trespass to try title action had been used to remove an obstruction in a street or alley, the proper remedy was injunction. Damages (and prospective injunctive relief) would be appropriate in cases involving excessive use by the easement owner, Simpson v. Phillips Pipeline Company, 603 S.W.2d 307 (Tex. Civ. App. -- Beaumont 1980, writ ref'd n.r.e.), misuse or negligent use of the easement. Holloway v. County of Matagorda, 667 S.W.2d 324 (Tex. App. -- Corpus Christi 1984, no writ).

IV. THE SEVERED MINERAL ESTATE

A conveyance may have the effect of granting or reserving a mineral (e.g., coal or gas), severing the ownership of that mineral from the ownership of the land and other minerals, or have the effect of granting or reserving minerals in a stratum or at a depth (e.g., a grant of the oil and gas lying above 4,000 feet below the surface, or a grant of the oil and gas that may be in the Ellenberger stratum). Such a grant or reservation will normally include such surface easements as are reasonably necessary to develop the mineral or stratum.

Problems have occasionally arisen concerning the relationship of the owner of a mineral or the owner of the minerals in a stratum. A partial severance of the kind here mentioned has the consequence of making the severed estate a dominant estate as concerns the surface owner. Regarding other mineral estates, the severed estate is dominant in the sense that the owner has the right to drill such wells as may be reasonably necessary for production although such wells penetrate superincumbent estates; by the same token it is servient to other mineral estates in that the owner of such other mineral estates have the right to drill such wells as may be reasonably necessary for production although such wells may penetrate the severed stratum. In the states in which coal deposits have frequently been severed from rights to oil and gas, legislation has had to regulate drilling and operating practices in wells penetrating coal strata.

A. The Right to Conduct Geophysical Exploration and Seismic Operations

A related question concerns geophysical surveys; may the surface owner of Whiteacre authorize the owner of an interest in minerals in other premises to conduct geophysical surveys upon Whiteacre?

The case authority on these questions is divided. To avoid controversy on the matter of

the exclusive character of the right of the mineral owner or lessee in these regards, some instruments contain express provision on the matter. Absent such express provision the problems posed are difficult of solution, and the more extensive the division of interests in Whiteacre, the greater is the difficulty.

The right of the mineral owner to conduct geophysical exploration on his own property or to grant a permit to have others do so has been recognized by Texas courts as a valuable property right. Wilson v. Texas Co., 237 S.W.2d 649, 650 (Tex. Civ. App. -- Ft. Worth 1951, writ ref'd n.r.e.); Phillips Petroleum Co. v. Cowden, 241 F.2d 586, 590 (5th Cir. 1957). Texas courts have recognized that seismic tests are within the lessee's implied easement to make reasonable, necessary use of the surface; even if at the time the lease was extended, seismic operations were not actually contemplated by any party. Yates v. Gulf Oil Corp., 182 F.2d 286, 289 (5th Cir. 1950).

It is a property right of the mineral interest owner, not the surface owner if the two estates have been severed. Wilson, 237 S.W.2d at 650. When the mineral estate has been severed from the surface estate, the mineral estate owner has the right to conduct or permit others to conduct geological and geophysical operations. Phillips, 241 F.2d at 590. See also Enron Oil & Gas Company v. Worth, 947 P.2d 610, 613 (Ct. App. Okla. 1997) ("a mineral owner may sever and assign the surface easement for conducting geophysical exploration.").

If the mineral interest owner has executed a lease, the language of the lease may determine whether the lessee has been granted the exclusive right to conduct geological and geophysical operations. Wilson v. Texas Co., 237 S.W.2d 649, 650 (Tex. Civ. App.--Fort Worth 1951, writ refd n.r.e.) (if lease grant lessee exclusive right to explore, the lessor can neither conduct exploration operations nor grant the right to a third party.). See also Comment, The Oil and Gas Lessee's Right to Geophysical Exploration: Incidental or Exclusive? 20 Tulsa L.J. 97, 103-05 (1984). In Shell Petroleum v. Puckett, 29 S.W.2d 809, 810 (Tex. Civ. App.--Texarkana 1930, no writ, the lease provided it was executed "for the sole and only purpose of mining and operating for oil and gas and of laying pipelines and of building tanks, power stations, and structures thereon to produce, save, and take care of said products." Id. at 810. In construing such language, the court, in dictum, opined that despite the lease's language, the lessee had the implied right to explore the lease and lands by geophysical operations, but not the exclusive right to do so. See also Enron Oil & Gas Company v. Worth, 947 P.2d 610, 613 (Ct. App. Okla. 1997) ("unless the terms of a lease expressly grant the lessee the exclusive right to conduct geophysical exploration, a lessor retains a corollary right to authorize a third party to conduct such operations.").

B. Seeking Permission From Multiple Mineral Owners

Texas law is clear permission must be obtained from the owners of the mineral estate, not the surface estate, before conducting a geophysical survey. However, no Texas case describes what is legally required to conduct a lawful geophysical survey when there are multiple mineral estate owners. There is not even unanimity among commentators. One view is permission must be obtained from "all owners of leasing rights in the land." Walker, Pitfalls in Shooting-Options and Section-Leases, 1 Rocky Mountain Mineral Law Institute 239, 249-50 (1955) ("obviously, the agreement should be executed by all owners of leasing rights in the land."). Another view, and the one most-widely held by most Texas practitioners, is it is unnecessary to secure permission from all of the owners of the mineral

estate and a geophysical survey may be lawfully conducted if any owner of an undivided mineral interest has granted permission to conduct geophysical operations. Earl A. Brown, Jr., Geophysical Trespass, 3 Rocky Mountain Mineral Law Institute 57, 59-60 (1957) ("any of the mineral owners may grant a permit for geophysical operations, and it is unnecessary to secure permission from all of the other mineral owners."). See also Dancy & Humphreys, Legal Considerations Involved in the Geophysical Exploration for Oil & Gas, 57 Okla. B.J. 1802, 1805 (1986) (any co-tenant who has an interest in the mineral estate should be able to grant a seismic permit to a third party). Meanwhile, one commentator has noted that many companies have taken a more pragmatic approach and "settle for 50% or less, or simply use their 'best efforts." Jones & Faber, Subsurface Trespass and Seismic Options, 11th Annual Advanced Oil, Gas & Mineral Law Course J-1 (1993).

While numerous seismic surveys have been conducted on the basis of seismic permits obtained from less than all of the owners of the mineral estate is not the practice when a seismic survey is conducted under an option agreement. Because an option agreement grants permission to conduct a seismic survey with an option to lease the property, most companies try to option one hundred percent of the mineral owners to protect their leasehold position. However, some companies still option only one owner to gain somewhat protected access to the acreage and proceed with the shoot. Blomquist, 48 Baylor L. Rev. 21, 36 (1996).

The logic behind the "one permit is enough" rationale relates back to the notion that a co-tenant has a right to enter upon the common estate and explore for oil and gas without the consent or approval of the other co-tenants. Id. at 36-37, citing, Burnham v. Hardy Oil Co., 147 S.W. 330, 335 (Tex. Civ. App.--San Antonio 1912), aff'd. 195 S.W. 1139 (Tex. 1917). See also Dancy & Humphreys, 57 Okla. B.J. at 1805 ("[b]ecause each co-tenant has the right to explore for oil and gas or other minerals, and because geophysical surveys have been recognized as exploration activities . . . any co-tenant who has an interest in the mineral estate should be able to grant permission to a third party to conduct geophysical surveys."). This rationale was recently affirmed by a court of appeals in Oklahoma in Enron Oil & Gas Company v. Worth, 947 P.2d 610, 613 (Ct. App. Okla. 1997) (an undivided mineral interest owner, acting as a tenant in common regarding other undivided mineral interest owners, can grant the right to conduct geophysical operations without the joinder of all the fractional mineral owners). See also Mobil Pipe Line Company v. Smith, 860 S.W.2d 157, 159-60 (Tex. Civ. App. -- El Paso 1992, dism'd w.o.j.) (owner of mineral estate can burden a surface tenant's right to use the surface and execute a right of way pipeline easement even when the surface and mineral estates have not been severed and no lease has been executed).

However, one recent commentator has raised interesting questions (and accompanying concerns) about the legal viability of analogizing the drilling of a well with granting a seismic permit. Blomquist, 48 Baylor L. Rev. at 37. More he notes that an oil and gas lessee by its leasehold ownership becomes a co-tenant in fee with the other undivided owners of the mineral estate. Id. citing Wilson v. Superior Oil Co., 274 S.W.2d 947, 950 (Tex. Civ. App.--Texarkana 1955, writ ref'd n.r.e.). Based upon his status as a co-tenant, a lessee can drill a well on the common property without the concurrence of the other co-tenants, subject to the duty of accounting for profits. Id. citing Cox v. Davison, 397 S.W.2d 200, 201 (Tex. 1965). However, this commentator asserts that a geophysical permit does not entitle a geophysical company to any rights of ownership that would afford it the status of a co-

tenant. Id. The permit merely provides a right to conduct seismic tests or other geophysical operations. Id. Unless the geophysical company is granted the permit to conduct operations as an agent of the co-tenant, or for the co-tenant's use, this commentator reasons that the right granted is more for an easement or a license and notes that one co-tenant cannot grant an easement across the common estate without the consent of the other co-tenants is well established. Id. citing Texas Mortgage Co. v. Phillips Petroleum Co., 470 F.2d 497, 499 (5th Cir. 1972) (noting that "[i]t is well settled that a tenant in common cannot, without the precedent authority or subsequent ratification of his co-tenants, impose an easement or dedication upon the common property in favor of a third party."). Id. at 37-38. This commentator acknowledges that while this reasoning has not been applied to a mineral cotenancy "by way of analogy, it is logically reconcilable." Id. But see Enron Oil & Gas Company v. Worth, 947 P.2d 610, 613 (Ct. App. Okla. 1997) (an undivided mineral interest owner, acting as a tenant in common regarding other undivided mineral interest owners, can grant the right to conduct geophysical operations without the joinder of all the fractional mineral owners).

He also notes that another potential reason to reject the widely-accepted theory that granting permission to conduct seismic does not differ from granting permission to drill a well is that unlike the public policy rationale behind allowing a co-tenant to drill a well without the concurrence of all the co-tenants -- that due to the fugitive nature of oil, a co-tenant should be allowed to remove it promptly to prevent drainage -- no such potential exists with acquiring geophysical data. Id. at 38-39. The fact that a geophysical survey, conducted under the permission of a small interest owner, could destroy the value of the minerals, could be cited as a public policy reason to deny the right of one co-tenant with a small interest to alone permit geophysical exploration.

Because the potential exists for making "new law", a geophysical explorer would be wise to make a good faith effort to permit or option all of the mineral owners prior to conducting geophysical operations. The geophysical explorer might also consider leasing a portion of the minerals, instead of merely permitting, obtaining the status and rights of a co-tenant.

V. POOLING AND UNITIZATION SURFACE ACCESS

Although the terms "pooling" and "unitization" are often used interchangeably, pooling refers to the bringing together of two or more smaller tracts sufficient to form a drilling or production unit in accordance with applicable spacing rules while unitization generally refers to the joint operation of separately owned tracts within an oil or gas field, oftentimes for the purpose of secondary recovery. See Williams & Meyers, Oil and Gas Law, § 901 (1997). But see Tex. Nat. Res. Code Ann. 101.001-052 (the terms "unitization" and "pooling" are used synonymously in Texas' Unitization Statute). In either instance, when two or more tracts that are the subject of separate oil and gas leases are pooled or unitized, the question arises whether the surface of one of the joined tracts can be accessed or otherwise burdened by activities or equipment utilized with the exploration or production of oil or gas from one of the other tracts.

A. The General Rule.

An owner of the mineral estate underlying a tract of land may not use the surface

estate of that tract to facilitate or otherwise assist any exploration or production operations on adjacent, adjoining, or other tracts of land. See Annotation, Right of Owner of Title to or Interest in Minerals Under One Tract to Use Surface, or Underground Passages, in Connection With Mining Other Tract, 83 A.L.R.2d 665 (1962).

The landmark case in Texas establishing this general rule is Robinson v. Robbins Petroleum Corp., 501 S.W.2d 865 (Tex. 1973). The lessor, when he owned both the mineral estate and surface estate, executed a mineral lease covering 221 acres, the lessor conveyed 80 acres of the surface estate to Robinson and after that conveyance occurred, the mineral lessee operated three water flood units of varying sizes, each of which included all or a part of the 221 acres under lease. The water flood program involved taking salt water from underneath the 80 surface acres owned by Robinson and transporting it to injection wells elsewhere on the unit. Robinson, as owner of the surface estate, sued seeking damages for the unauthorized use of the salt water. Although the court ruled that the lessee had the right to use the salt water for production of oil underlying the 221 acre lease, the lessee did not have the right to use the salt water for the production of oil underlying acres not included within the 221 acre lease. Id. at 868. Robinson was, entitled to recover the value of the salt water used off-lease. Id. In so ruling, the court was careful to distinguish the facts in Robinson from those before the court in Sun Oil Company v. Whitaker, 483 S.W.2d 808 (Tex. 1972), by noting the lessee in Sun Oil was held to have an implied right to use water underlying the surface estate for a water flood program because in that case the water was being used only to produce minerals from underneath the leased premises. See also Phillips Petroleum Company v. Cowden, 241 F.2d 586 (5th Cir. 1957) (the court, in dictum, suggested that a mineral owner's easement to invade the surface to explore and exploit his own property did not extend authorizing an invasion of the surface for exploring neighboring property).

B. Effect of Pooling or Unitization.

When two or more oil and gas leases are pooled or unitized whether the surface estate of one tract can benefit the mineral estate of another tract that has been pooled or joined within a unit presents a more complicated question which may turn on whether the mineral estate was severed from the surface estate when authorization to pool or unitize was granted. See E. Miller, Field Wide Unitization and Secondary Recovery, 11th Annual Advanced Oil, Gas, and Mineral Law Course, State Bar of Texas (October 1993).

Under the general rule announced by Robinson, if there is no pre-existing authority from the owner of the surface agreeing to allow the surface to be used for pooling or unit operations, the lessee will only have the right to use only so much of the surface as is reasonably necessary to explore for or develop the minerals lying directly underneath the acreage under lease.

However, if a lease or other written agreement permits the pooling or unitization of the acreage covered by the lease and it was executed by a lessor when he owned title to both the surface and minerals, it would seem that the lessee shall have the right to use the surface for such joint operations because the lessor executed the lease in two capacities with rights that are incidental to both ownership of the surface and ownership of the minerals: as a mineral owner, he gave the lessee all necessary easements for the exploration and production of the minerals and, as a surface owner, he could burden the surface with any

and all easements including using the surface for pooled or unitized operations. Pfulger v. Clack, 897 S.W.2d 956 (Tex. App. -- Eastland 1995, writ denied). A subsequent purchaser of the surface who takes with notice of an oil and gas lease takes the surface title subject to the additional rights allowing the land to be used for joint operational activities because it is a general rule of law that a subsequent surface owner takes the land subject to all of an oil and gas lease of which the new owner has notice. E.g., Texaco, Inc. v. Faris, 413 S.W.2d 147 (Tex. Civ. App. -- El Paso 1967, writ ref'd n.r.e.); Grimes v. Goodman Drilling Company, 216 S.W.2d 202 (Tex. Civ. App. -- Ft. Worth 1919, writ dism'd).

When the lease or other written agreements permitting pooling or unitization of the leased acreage was executed by the lessor after the mineral estate has been severed from the surface estate and the grant of the mineral estate does not include easements covering pooling or unit operations, the logical rule would appear to be that the mineral owner cannot unilaterally subject the surface to pooling or unit operations benefiting other leases either through clauses in an oil and gas lease or by execution of a unitization agreement. Field Wide Unitization and Secondary Recovery, at D-15. But see Delhi Gas Pipeline Corporation v. Dixon, 737 S.W.2d 96 (Tex. Civ. App. -- Eastland 1987, writ denied).

Another Texas case addressing this problematic issue is Miller v. Crown Central Petroleum Corporation, 309 S.W.2d 876 (Tex. Civ. App. -- Eastland 1958, writ dism'd by agr.). Although Miller was decided fifteen years before Robinson, it was not cited in the Robinson decision. The Miller case may conflict with the Robinson decision depending upon facts which, unfortunately, are not apparent from the opinion. The Millers had purchased the surface of two tracts of land already the subject of an oil and gas lease which contained a pooling provision. A few years after the Millers purchased the two surface tracts, the production from the wells on the two tracts began to decline and so the lessee began a waterflooding program which covered several tracts including the two tracts purchased by the Millers. As part of this waterflood program, it was necessary to pipe saltwater across the two Miller tracts and inject it into a well on yet another tract in the waterflood program. The Millers then sued to prohibit the piping of salt water across their land and sought damages.

The Court of Appeals ruled the lessees were entitled to use the surface of the Miller land for unit operations apparently because the lease contained a pooling provision unlimited as to the acreage that could be in the unit. Although the pooling clause made no mention of pooling for waterflood operations, the court found it granted the right to pool the land for waterflood and therefore the Millers took title to the surface with notice of the right of the mineral lessee to use the surface for unit operations.

If the oil and gas lease in Miller was executed by the lessor when he owned title to both the surface and the minerals, then the Miller decision appears to follow the Robinson decision since, under the court's reasoning in Miller, the unit operations had been authorized by the surface owner. However, if the oil and gas lease in Miller was executed by a lessor when he owned only the minerals, the court's decision would seem to conflict with Robinson because it allowed the mineral owner to increase the burdens on the Miller's surface estate without their permission. See Delhi Gas Pipeline Corporation v. Dixon, 737 S.W.2d 96 (Tex. Civ. App. -- Eastland 1987, writ denied) (citing Crown Miller, Court held that mineral lessee could lay a gas gathering line across the surface owners' 29.98 acre tract to transport gas produced from a well on a 687 acre pooled unit even though the well

was not on the surface owners' 29 acre tract and the lease was executed after the 29 surface acres had been severed from mineral estate).

The Robinson case is also troublesome because there is some indication in the opinion that the unitization was accomplished by agreement of the mineral owners after the Millers had purchased their surface and not by the pooling clause already contained in the lease. Id. at 877 (the water flood program "was done by agreement of all owners of minerals and royalty, including the lessors and lessees of the two tracts in which the Millers own the surface").

One other interesting aspect of the Miller decision is that the pooling clause contained no limitation on the site or the tracts to be posted or otherwise combined. However, as noted by a prior author on this subject, in most modern lease forms in use today, the pooling clause will limit the size of the unit to 40 or 80 acres for oil and 320 or 640 acres for gas. Therefore, it would be difficult to use one of these modern lease forms to bind a subsequent purchaser of the surface to operations on a unit which exceeded the size authorized by the pooling clause. Field Wide Unitization and Secondary Recovery, at D-16.

It is a standard practice in Texas in field wide unitization that the rights of the surface owners are carefully reviewed and, often, it is necessary to take one or two approaches to the problem. Either the surface owner, if he is a royalty owner in a unit is requested to and ratifies the entire unit agreement, entitling his lessee to conduct operations on any part of the unitized surface or a separate surface lease is obtained from the surface owner granting explicit rights to his land to follow Robinson.

VI. ENCUMBERED ESTATES

A. Easements as Collateral

Premises mortgaged or which are subject to a deed of trust usually may not be developed by the owner nor by his lessee (unless the lease is senior to the security interest) without the consent of the secured creditor. Absent such consent, development of the land for minerals will be said to constitute voluntary waste which is enjoinable by the secured creditor or for which he may recover damages, and typically such "waste" will occasion an acceleration of the mortgage debt under the terms of such security agreements.

Before land can be developed by a lessee of the mortgagor, it is usually necessary, therefore, to obtain a subordination agreement from the mortgagee. Such an agreement will normally provide for the allocation of the proceeds of the lease between the mortgagor and the satisfaction of the debt for which the mortgage or deed of trust is security.

A mortgage, deed of trust or vendor's lien is entitled to priority over any subsequent interests created by the landowner, and such interests may be cut off by foreclosure. See Kramer, Local Regulation of Extractive Industries: Evolving Judicial and Regulatory Approaches, 14 UCLA J. of Envtl. L. & Pol'y 41 (1995).

B. Effect of prior or subsequent surface lease

The lessee of land for a term of years or from period to period (described here as "surface lessee") has no right to sever minerals from the premises absent an express grant of such power, for such severance constitutes waste of the premises. Our concern here is with the right of the lessor, or a claimant through the lessor, to sever and remove minerals from the land and to use such portion of the surface of the land as may reasonably be necessary for exploration, development and production of the minerals when such land is subject to a surface lease.

If the interest of the surface lessee is junior in time to the interest of a mineral grantee or oil and gas lessee (and is not given priority by operation of recordation statutes by non-recordation of the mineral grant or lease), the mineral grantee or lessee is not required to obtain permission from the surface lessee to enter upon and use the surface as is reasonably necessary in the exploration for and development and production of minerals. Greater difficulty is presented by a surface lease earlier in time than a mineral grant or reservation.

One writer has concluded from his examination of the meager authority on the matter that a tenant for years may not veto oil and gas exploration and development by the reversioner. Olds, "Impact of Future Interests on Law of Oil and Gas," 8 SW. Legal Fdn. Oil & Gas Inst. 163, 168 (1957). This conclusion is reasonable if drainage is occurring or is threatened, since the potential injury to the reversioner is so great as equitably to require protecting his interests. Absent drainage or the threat, where a lease of land for a term of years is executed and the lease is silent as to minerals and in no wise indicates the grant is of "surface only" or for particular surface uses only, we conclude the lessor is not entitled to make entry upon the land to explore for and developing minerals without the consent of the owner of the term of years. A contrary holding does too much violence to the covenant of quiet enjoyment usually implied in leases for a term of years and to the rule that leases shall be construed in favor of the lessee.

The case authority on the matter is limited and it is possible that some courts may permit oil and gas exploration and development by the reversioner without the consent of the surface lessee, particularly when the surface lease is for a long term. The question may turn upon an inquiry into the purpose of the lease, whether or not stated. Perhaps if the lease is silent concerning mineral development there is an ambiguity whether such development by the reversioner is permitted, particularly where the lease is for a long term. To resolve the ambiguity the court may inquire into the extrinsic circumstances to determine the intent of the parties. If such inquiry reveals the premises were leased for grazing or agricultural purposes, it might reasonably be concluded there was no intent to exclude the reversioner from exploration for and development of minerals; however the rights of surface use of the reversioner are somewhat less extensive than where there is an express mineral reservation, e.g., he might be required to compensate the surface lessee for his surface use and he might be subject to a greater duty to protect the surface lessee from damage because of such operations. If the manifest purpose of the surface lease is primarily commercial, industrial or residential, it would reasonably be concluded there was intent to exclude the reversioner from exploration and development of minerals, e.g., With a long term lease of a tract intended to be used for a shopping center.

VII. THE OIL AND GAS LEASE

A. In General. In the typical oil and gas lease, absent a specific use limitation either within the lease itself, or by some limitation on the authority of the lessor, the mineral lessee will acquire the right to use as much of the surface in such a manner as is reasonably necessary to accomplish the purposes of the lease. Ball v. Dillard, 602 S.W.2d, 521 (Tex. 1980). So long as neither the lease nor some other applicable use restriction prohibits the lessee from doing so, the lessee will have, among other rights reasonably necessary for his operations, the following rights:

1. Access to that Land.

Ball, the surface tenant, locked the gate to the property denying Dillard, the oil and gas lessee, access to the leased premises. This case dealt with the right of an oil and gas lessee to enter upon the lease premises over the objection of the surface tenant. The court held that Ball had exceeded his rights under the surface lease and had unreasonably interfered with the right of Dillard, the mineral lessee to have access to the premises. The court's discussion of the lease to Ball referred to the lease as a "surface lease" leaving open the possibility that a lease for years covering the entire fee simple executed prior in time to the oil and gas lease, without restriction as to use, could lead to a different result.

2. The Right to Construct Roads on the Leased Premises to the Drill-Site.

Once leased, absent restrictive provisions, the lessee may construct roads on the leased premises even if the well is bottomed elsewhere. Humble Oil & Refining Co. v. Williams, 420 S.W.2d 133 (Tex 1967).

3. The Right to Construct Roads on Unleased but Adjacent Co-owned Leased Premises to the Drill-Site.

Texas law holds that an oil and gas lease does not assign to the lessee the right to use the surface of other lands owned by the Lessor but not covered by the lease except to gain access to the leasehold. For instance, in Petty v. Winn Exploration Co., Inc., 816 S.W.2d 432 (Tex. App. -- San Antonio 1991, no writ), an oil and gas lessee could continue to use an existing road for oil and gas operations, even though the road crossed lands that were not subject to the same lease. An oil and gas lessee obtains a fee simple determinable in the mineral estate, and like grantees of surface estates, the lessee can assert a right under Texas common law, to an easement by necessity or implied easement appurtenant across adjacent acreage retained or owned by the lessor. Peacock v. Schroeder, 846 S.W.2d 905 (Tex. App. -- San Antonio 1983, no writ). In Peacock, a mineral lessor sued that the lessee did not have an access roadway across lands owned by the lessor, but not covered by the lease, to reach the 160-acre lease. The appeals court found that the evidence supported the finding by the trial court of an implied easement by necessity and an implied easement appurtenant. The elements and application of these easements are discussed in more detail below. The case is instructive in illustrating most Texas easement cases involve road access easements to the leasehold, rather than pipeline rights-of-way and facility locations that benefit the leasehold but are located off lease.

4. Miscellaneous Rights incidental to Lessee's Operations on the Land under Lease.

These rights would include, without limitation, the right to use caliche to construct roads and pads for drill-sites and tank batteries, B. L. McFarland Drilling Contractor v. Connell, 344 S.W.2d 493 (Tex. Civ. App.--El Paso 1961), writ dism'd as moot, sub nom. Connell v. B. L. McFarland Drilling Contractor, 347 S.W. 2d 565 (Tex 1961), the right to lay pipelines and construct storage tanks, power stations and other structures necessary to produce, save, care for and dispose of oil and gas production, Joyner v. R. H Dearing & Sons, 134 S.W.2d 757 (Tex. Civ. App.--El Paso 1939, error dism'd, judgmt cor.), the right to conduct geophysical exploration and seismic operations Phillips Petroleum Co. v. Cowden, 241 F2d. 586 (5th Cir. 1957), and various other rights reasonably related to the exploration for and development and production of oil and gas from the leased premises.

B. Specific Lease Provisions.

1. The Granting Clause.

The granting clause should be examined, often-times not so much for what gives, but for what it takes away. Absent an expression to the contrary, the lease will grant to the lessee the right to reasonably necessary use of the surface to accomplish the lease's intended purposes. The granting clause should be carefully reviewed to ensure specific activities are not limited by the language of the granting clause. In the typical printed lease form, the expression of limitation will often be expressed by striking specific printed language, such as "and housing its employees" or "laying pipe lines" or "exclusively". The striking of these specific printed provisions will at a minimum probably be argued by the surface owner to express intent to limit the rights of the lessee in its operational activities upon the leased premises and should not be overlooked.

Limitations on the grant will be set forth in "other provisions" of the lease. That is, when a printed lease form is being used, the limitations on the right of the lessee to access and use the surface estate will appear in the "typed provisions" of the lease. Express limitations can include provisions such as a "no surface use" clause, a "no seismic or geophysical operations", limitations on the use or placement of roadways and other facilities, designation of drill-site locations, designation of entry and access points.

2. The Land under Lease.

The leasehold premises may cover more than the drill-site tract. Although the lessee will probably drill only one well at a time, the fact that a lease covers over one tract can be beneficial for access. In TDC Engineering v. Dunlap, 686 S.W.2d 346 (Tex. App..-Eastland 1985, writ ref'd n.r.e.), the Eastland Court of Appeals held that even in the situation where the lessor owned only a small undivided interest (a 1/16 interest) in the non-drill-site tract, the fact that the lease covered other acreage gave the lessee the right to use a salt water disposal well on the non-drill-site tract. The treatment of ingress and egress would appear to be no different, and if the non-drill-site tract provides a means of access to the drill-site tract, then a multi-tract lease can prove beneficial for access. A different result could have occurred if the same lessee had taken two separate leases, each covering only one tract, from the same lessor, instead of taking one lease covering two tracts (unless the lessee exercises pooling rights).

3. The Pooling Provision.

Besides affording the lessee the opportunity to protect against drainage, the opportunity to increase the acreage allocated to a well for allowable purposes, the opportunity to ignore lease lines for well-location purposes, the opportunity to commingle production from more than one well into common tanks, and other beneficial opportunities, the pooling provision can have the side benefit of providing access across non-drill-site tracts which could not otherwise be used for access purposes. At least three Texas cases have held that the right of the lessee to use the surface to produce and remove oil and gas extends to non-drill-site tracts within a production unit with which the drill-site tract has been unitized. See Delhi Gas Pipeline Corp. v. Dixon, 737 S.W. 2d 96 (Tex. App.-- Eastland 1987, writ denied), where the Eastland Court of Appeals held that the lessee had the right to lay a pipeline across unitized non-drill-site tracts to transport gas from the unit well, cautioning however) that the gas purchaser would not have the right to transport gas not produced from the unit in the pipeline across the surface owner's land without condemnation proceedings or an easement from the owner of the surface estate. See also, Property Owners of Leisure Land, Inc. v. Woolf & Magee, Inc., 786 S.W.2d 757, (Tex. App.--Tyler, 1990, writ dism'd by agr.), and J.M Miller v. Crown Central Petroleum Corporation, 309 S.W.2d 876, (Tex. Civ. App.--Eastland, 1958, writ dism'd by agr.). The lessee should be cautioned, however, to remember he will be held to the good faith pooling standard required of lessees when exercising the pooling authority granted under the lease. There must be an underlying good faith determination by the lessee that pooling is appropriate in the circumstances, considering both the interest of the lessee and the interest of the lessor. Circle Dot Ranch, Inc. v. Sidwell Oil and Gas, Inc., 891 S.W.2d 342 (Tex. App.--Amarillo 1995, writ denied).

In the Delhi case, the mineral lessee on a pooled unit was found to be entitled to grant an easement to a gas purchaser to transport gas from a unit well across non-drillsite tracts within the pooled unit to the gas purchaser's pipeline system. Both the Crown Central case and the Woolf & Magee cases contained similar holdings.

There appear to be certain limitations on the lessee's right to the surface in a unit. In Robinson v. Robbins Petroleum Corporation, 501 S.W.2d 865 (Tex. 1973), the Texas Supreme Court dealt with the relative rights of the owner of the surface estate of Whiteacre vis a vis the owner of an oil and gas lease on Whiteacre regarding salt water from Whiteacre for the benefit of unitized lands which included both Whiteacre and other lands. In conclusion, the Court stated:

"Robinson, as owner of the surface estate, is entitled to protection from uses, without his consent, for the benefit of owners outside of and beyond premises and terms of the Wagner Lease (which covered Robinson's land). Likewise, the rights of the mineral owners are entitled to be protected in using the salt water (determined to be part of the surface estate) reasonably necessary to produce oil under the premises and terms described in the Wagner Lease. We hold Robinson is entitled to recover the value of that portion of the salt water consumed for the production of oil for owners of lands outside the Wagner Lease. If only Robinson water were used to drive the oil and that part were consumed or lost to Robinson, the proportion of the water for which the operator would owe Robinson would be the same as the proportion of the oil recovered

for lands outside the Wagner Lease. This assumes this unit operation is reasonably necessary for the production of the Wagner Lease Minerals. If this is not the case, Robinson is entitled to damages for all the water used without his consent."

It would appear that there may be situations in which, if the surface operations on Whiteacre benefit the mineral estate underlying Whiteacre as well as other tracts, the surface owner will be entitled to recourse against the mineral lessee to the extent that the use of the surface on Whiteacre benefits other lands in addition to Whiteacre. Whether the Robinson case extends beyond salt water to other uses appears to be an unanswered question. The Robinson case appears, however, to stand for the proposition that if the surface operations on Whiteacre do not benefit the mineral owner on Whiteacre presumably, the court would find that the surface use by the mineral lessee on Whiteacre is excessive of the easement which the mineral owner has on Whiteacre, and, presumably, both injunctive relief and damages would be available as a remedy to the surface owner of Whiteacre.

4. Pugh Clauses and Partial Termination Clauses.

Many of today's oil and gas leases contain clauses which provide that in time, typically either at the expiration of the primary term or at some specified time thereafter, the lease will terminate as to "non-productive" acreage and/or depths. These types of clauses create certain access issues regarding the acreage and/or depths which the lease terminates after a point in time. Often, the language of the lease can determine whether there will be an express right of access on the "terminated acreage" after that point in time. Many leases which contain partial termination clauses or Pugh-type clauses will contain language reserving to the lessee the right of ingress and egress across the land affected by the partial termination clause. Depending upon the ownership of the partially terminated acreage, an expressly created right of ingress and egress across said land will avoid any question regarding the right of the lessee to continue to use the formerly leased acreage for the purposes expressly authorized in that clause.

A similar, but different, set of questions is with leases which contain "depth termination" clauses, which typically provide that after a certain point in time the lease will terminate as to depths somewhere below (and sometimes above) the "deepest depth drilled", the "deepest producing horizon" or some similarly specified depth. In these situations, if a specific right "to drill through" the shallower depths is granted or retained in favor of the mineral owner, and his successors or assigns, under the partially terminated lease as a matter of contract, the old oil and gas lessee must allow the new lessee to drill through the shallow depths to access the deeper horizons. Obviously, this does not give the new lessee the right to evaluate, log or conduct other operations in the shallow depths, access issues aside. What if the lease is silent as to the right of ingress and egress for the benefit of a new oil and gas lessee through the retained depths under the old lease? I could not find any Texas cases dealing with this specific question. It would seem that a court should be inclined to allow a new lessee as to the deep rights to "pass through" the shallow depths to access the deeper depths. Otherwise, the deep rights would have no value to the mineral owner or his new lessee. Applicable principles would seem the same principles as apply under "an easement by necessity". It would seem that a court should also consider that the mineral lessee under the "shallow rights" lease only owns the oil and gas in place in the shallow zone, and that to the extent there may be other substances in the shallow depths (as there would be), such as "other minerals" or other substances deemed as a matter of law to be part of the surface estate, the shallow depths lessee would have no right in, to or over said substances.

5. Access Across Adjacent or Nearby Tracts to the Drill-Site Tract.

There is little case law dealing with questions regarding access across other lands. One of the few reported cases is the case of Peacock v. Schroeder, 846 S.W.2d 905 (Tex. App.-San Antonio 1993, no writ). Peacock sought a declaratory judgment that a lease had terminated for failure to produce in paying quantities. Peacock, the owner of the surface of both the leased premises and of adjacent land, sought a declaration that the lease denied Schroeder, as lessee, access across Peacock's unleased land to the leased premises. After disposing of the issues related to the lease termination claim, the court dealt with the question of the lessee's access across Peacock's unleased land.

In reaching its decision, the court pointed to the fact Peacock's ranch covered 1906 acres and that the leased premises was 160 acres of the ranch. Prior to and at the time of the lease to Schroeder, the ranch was owned by the McDaniels, the lessors under the lease, who sold the ranch, subject to the lease to Peacock. Other facts deemed important by the court included:

- (a) The lease was surrounded on three sides by the ranch and on the fourth side by property belonging to a third party.
 - (b) No public road bordered the lease.
- (c) Schroeder had never had access to the lease, either expressed or implied, over the third party's land.
- (d) Schroeder testified there was no way to reach the lease except across one of Peacock's ranch roads which stretched approximately 2.5 miles and which "Schroeder used four to six days a week.
- (e) Schroeder used the road as a contract pumper prior to acquiring the lease, and he used it after the purchase to gain access to the leased premises.
- (f) Peacock knew of the usage of the road by Schroeder when Peacock bought the ranch.

The court held in favor of Schroeder, the lessee, because Schroeder had an easement by necessity, the elements of an easement by necessity being (1) unity of ownership of the dominant and servient estates prior to the severance, (2) access must be a necessity and not a mere convenience, and (3) the necessity must exist at the time of the severance of the two estates. Koonce v. Brite Estate, 663 S.W.2d 451, 452 (Tex. 1984). Likewise, the court found in favor of Schroeder because Schroeder had an implied easement appurtenant, the elements of an implied easement appurtenant being (1) unity of ownership of the dominant and servient estates prior to the severance, (2) using the easement must have been apparent at the time of the grant, (3) using the easement must have been continuous so that the parties must have intended its use pass by the grant, and (4) using the easement

must be reasonably necessary to the use and enjoyment of the dominant estate. Drye v. Eagle Rock Ranch, Inc., 364 S.W.2d 196, 207 (Tex. 1962). The court discussed Peacock's contention that the striking of certain language in the lease negated any implied easements. Peacock brought to the court's attention that the granting clause of the lease had been modified to read:

"Lessor... does hereby grant, lease and let unto lessee the land covered hereby for the purposes and with the exclusive right of exploring, drilling, mining and operating for, producing and owning oil, gas, sulphur and all other minerals (whether or not similar to those mentioned), together with the right to make surveys on said land, lay pipe lines, establish and utilize facilities for surface or subsurface-disposal of saltwater, construct roads and bridges, dig canals, build tanks, power stations, telephone lines, employee houses and other structures on said land, necessary or useful in lessee's operations in exploring, drilling for, producing, treating, storing and transporting minerals produced from the land covered hereby or any other land adjacent thereto."

The critical language, according to Peacock struck the words "or any other land adjacent thereto". Citing no authority, Peacock argued that the striking of the words "or any other land adjacent thereto" explicitly negated any express or implied uses by the lessee of the remaining portions of the ranch. The court was unimpressed with Peacock's argument, concluding that the striking of the above words merely evidenced an intent that the leased premises would not be used for producing, storing or transporting oil or gas produced from adjacent land. Likewise, the court was not persuaded that the striking of the "Mother Hubbard" Clause (stricken in this lease) supported an argument for the negation of the implied easement. The court noted that no one contended that the parties to the lease intended the road be a part of the leased premises, but mistakenly excluded it from the leased premises. Further, the court noted the Mother Hubbard clause was designed to include adjacent strips of land mistakenly omitted from the lease, and that the excision of the Mother Hubbard clause from the lease would not affect the existence of the implied roadway easement. Finally, and emphatically, the court noted nowhere in the lease was a roadway easement specifically or even impliedly negated.

The Peacock case deals with an issue (the access issue) often taken for granted and applies certain well-founded principles to reach a logical result. Arguably, at least one conceptual problem with the case is that as to unleased land, it treats ingress and egress differently than it does the right to use the lessor's unleased land for other operational purposes. The court notes that Schroeder had used a portion of Peacock's land off the leased premises for the storage of equipment, but since Schroeder had ceased to use the "other land" for such purposes, the court declined to rule of Schroeder's right to such use for other purposes.

Since the Peacock case did not go to the Texas Supreme Court, we do not have the benefit of that court's position on the holding. The case does, however, provide a starting point for discussion of the rights of the mineral lease to use the access rights which are owned by the surface owner on the drill-site tract. Preliminarily determining the rights of the mineral lessee will be fact specific and will probably depend mostly upon the facts of that case. In that sense, the question of access which face the surface owner, himself. It would seem that with the oil and gas lessee, there

will be additional inquiries which will have to be made to ascertain the extent of his access rights.

Once again, the language of the oil and gas lease in question can determine the access rights of the oil and gas lessee. Most of us have seen leases in which the lessee is expressly prohibited from conducting surface operations on the leasehold premises, the lessee being limited to directional or horizontal drilling methods to reach the subsurface underlying the leasehold tract. Without question, as a matter of contract, the lessor and the lessee can expressly agree, for instance, that the lessee would not have the right to cross all or a portion of other land owned by the lessor.

6. Use of surface with operations on other premises.

The usual express easements and implied surface easements of a mineral owner or lessee are limited to such surface use as is reasonably necessary for exploration, development and production on the premises described in the deed or lease. The instrument may expressly grant easements in connection with operations on other premises; such an express provision is common in joint or community leases or instruments which authorize pooling and unitization. Absent such express provision using the surface by a mineral owner or lessee for operations on other premises constitutes an excessive use of his surface easements.

Directional drilling techniques have so far advanced since the second quarter of the century that by whipstocking wells and directional drilling it is often possible to bottom wells at predetermined locations. When for one reason, the surface of a given tract (Blackacre) may not be utilized for a well location, e.g., because the surface is a public way or railroad right of way or the mineral deed or lease severing exploration and development rights expressly denies the mineral owner or lessee any surface easements, frequently it is possible to locate a well on other nearby premises (Whiteacre) and by directional drilling bottom the well under Blackacre. Under these circumstances may the owner of surface rights in Whiteacre bar using the surface for a well location even though the owner of mineral rights in Whiteacre has authorized such well location or he seeks to make such well location for the purpose of recovering minerals from adjoining premises on which he holds a mineral lease or mineral interests? The consensus such veto power exists, although there is little case authority on the matter. The reason for the dearth of such authority such veto power appears assumed and hence operators who desire to engage in such activities have sought to obtain from the surface owners an express easement for such a well location. Where directional drilling is required, such as with a federal oil and gas lease with a no surface occupancy limitation, it is common for the surface owner of the adjoining private land and the federal oil and gas lessee to enter into a surface damage and easement agreement.

If the lease or mineral deed expressly granted an easement in the surface with operations on other premises, obviously the mineral owner or lessee may locate the well on the surface of Whiteacre despite the surface owner's opposition and need not compensate the surface owner for such use of the surface except as required by a surface damage clause creating the mineral interest or lease. However, if that instrument provided that the surface owner should have a royalty or other interest in production (e.g., a production payment) the question then arises whether the surface owner of Whiteacre is entitled to

share in the production from Blackacre obtained through a well with a surface location on Whiteacre. The solution to this question appears to turn upon the phraseology of the instrument concerning the royalty or other interest in production. If such instrument calls for a royalty or other interest in production "from Whiteacre," some authority suggests that the surface owner is not entitled to a royalty or other interest in production from this well. Pauley v. Faucett, 124 Cal. App. 2d 406, 269 P.2d 89, 3 O. & G.R. 763 (1954).

If the surface owner of Whiteacre is not entitled to a royalty or other interest in production and has not authorized the surface with production from other premises but a well is on Whiteacre and bottomed under Blackacre, there has been an excessive use of the easements on Whiteacre and damages for such excessive use will be calculated as in other forms of excessive use (Williams & Meyers, Oil and Gas Law, § 218.8 (1997)). Several Western states authorize mining and oil and gas operators to condemn surface easements to access and develop the mineral resources that may be located on lands other than those for which the surface easement is being condemned.

7. Other Relief.

In these times of increased restriction on access to property for mineral development, it may be worthwhile to consider modification of the Force Majeure clause to preserve the status quo until access are finally settled to permit the mineral estate lessee the use and enjoyment of his legal rights. [See Exhibit "C" Representative Force Majeure Provision [Revised].

VIII. SEISMIC AND DIRECTIONAL (OR HORIZONTAL) DRILLING ACCESS

Surface use related to operations on other premises has recently become much more commonplace with new horizontal drilling techniques and 3-D seismic operations. As a general rule, absent an express easement or permit with operations on other premises, using the surface by the mineral owner or lessee for operations on other premises constitutes an excessive use of the surface by the mineral owner. See Williams & Meyers, Oil and Gas Law, § 218.4 (1997).

There are few reported cases dealing with neighboring lands for mineral operations on adjacent or nearby lands. It goes without saying an oil and gas lessee who has a lease on Blackacre and who wishes to drill or conduct geophysical operations from Whiteacre on which the lessee does not even have an oil and gas lease, must, at a minimum, obtain the consent of the surface owner to conduct operations from Whiteacre to or affecting Blackacre.

If the oil and gas lessee has an oil and gas lease on both Blackacre and Whiteacre, what rights does the oil and gas lessee must use the surface of Whiteacre for operations regarding Blackacre? Certain controlling principles are in Robinson v. Robbins Petroleum Corporation, 501 S.W.2d 865 (Tex. 1973), wherein the Texas Supreme Court dealt with the relative rights of the owner of the surface estate of Whiteacre vis a vis the owner of an oil and gas lease on Whiteacre regarding surface operations on Whiteacre to benefit other lands. In conclusion, the Court stated that:

"Robinson, as owner of the surface estate, is entitled to protection from uses thereof,

without his consent, for the benefit of owners outside of and beyond premises and terms of the Wagner Lease (which covered Robinson's land). Likewise, the rights of the mineral owners are entitled to be protected in using the salt water (determined in this case to be part of the surface estate) which was reasonably necessary to produce oil under the premises and terms described in the Wagner Lease. We hold Robinson is entitled to recover the value of that portion of the salt water consumed for the production of oil for owners of lands outside the Wagner Lease. If only Robinson water were used to drive the oil and that part were consumed or lost to Robinson, the proportion of the water for which the operator would owe Robinson would be the same as the proportion of the oil recovered for lands outside the Wagner Lease. This assumes this unit operation is reasonably necessary for the production of the Wagner Lease Minerals. If this is not the case, Robinson is entitled to damages for all the water used without his consent."

It would appear that if the surface operations on Whiteacre benefit the mineral estate underlying Whiteacre, then the surface owner will be entitled to recourse against the mineral lessee only if using the surface on Whiteacre benefits other lands besides Whiteacre. If the surface operations on Whiteacre do not benefit the mineral owner on Whiteacre presumably, the court would find that the surface use by the mineral lessee on Whiteacre is excessive of the easement which the mineral owner has on Whiteacre, and, presumably, both injunctive relief and damages would be available as a remedy to the surface owner of Whiteacre.

What if the oil and gas lessee on Blackacre acquires a permit from the surface owner of Whiteacre for (a) drilling a well, either horizontally or directionally, to be bottom-holed under Blackacre, or (b) a permit to conduct geophysical operations regarding Blackacre from the surface of Whiteacre, but the oil and gas lessee (or the mineral owner if Whiteacre is unleased) on Whiteacre does not give permission? Does an oil and gas lessee or mineral owner on Whiteacre have recourse against the Blackacre oil and gas lessee for such operations on Whiteacre? The case of Humble Oil & Refining Company v. L.&G. Oil Company, 259 S.W.2d 933 (Tex. Civ. App. -- Austin 1953, writ ref'd n.r.e.) held that the oil and gas lessee on Whiteacre was not entitled to enjoin directional drilling from the surface of Whiteacre unless such use interfered with the surface rights of the oil and gas lessee on Whiteacre. A contrary result was reached in Chevron Oil Co. v. Howell, 407 S.W.2d 525 (Tex. Civ. App. -- Dallas 1966, writ ref'd n.r.e.) when it was found that the defendant penetrated plaintiffs mineral strata constituting a trespass of the mineral rights on Whiteacre.

Regarding geophysical operations on Whiteacre to obtain subsurface information regarding Blackacre, see Phillips Petroleum Company v. Cowden, 256 F.2d 408 (5th Cit.. 1958). The investigation and exploration were designed to obtain information regarding Blackacre, but the trial court found the seismic activities were also reasonably expected to reveal geophysical and geological information as to Whiteacre. In reversing and remanding the case, the court discussed the alternate remedies available to the claimant and ultimately allowed the plaintiff to waive the trespass and to sue in assumpsit for the reasonable value of the use and occupation of the land "occupied," and directed the trial court to determine damages based on the area on Whiteacre which was reasonably regarded as "occupied" by the survey (including, but not restricted to, the areas from which vibration echoes were received). Arguably, had the seismic operator been able to convince

the court that the information obtained would have been limited to Blackacre, a different outcome may have occurred. A prudent explorer using Whiteacre for seismic activities designed to obtain information about Blackacre will obtain permits from both the surface owner and the mineral owner on Whiteacre.

As to the right to authorize geophysical operations designed to obtain information about Whiteacre, itself, over objections of an oil and gas lessee on Whiteacre, see Shell Petroleum Corporation v. Puckett, 29 S.W.2d 809 (Tex. Civ. App. -- Texarkana 1930, no writ), wherein the Court of Civil Appeals of Texarkana held that the right of the lessee to conduct geophysical operations on the premises was not exclusive, and, the mineral owner on Whiteacre had the authority to authorize entry by a third party upon Whiteacre for the purpose of conducting geophysical operations. In light of this holding, many oil and gas lesses now provide that either the mineral owner or the oil and gas lessee shall have the exclusive right to explore by geophysical or other methods. See Wilson v. Texas Company, 237 S.W.2d 649 (Tex. Civ. App. -- Fort Worth 1951, writ ref'd n.r.e.).

What if your client has all the necessary permits on Whiteacre, no permits on Blackacre, and wishes to conduct seismic activities designed to obtain information regarding Blackacre? Can he do so with no permits from the mineral owner or oil and gas lessee on Blackacre? Texas cases have consistently required there be an actual surface entry onto Blackacre before a complaining party on Blackacre is entitled to recover for trespass. See Railroad Commission v. Manziel, 361 S.W.2d 560 (Tex. 1962), the rationale being that one of the elements of trespass is an actual intrusion onto the land of another. See also Kennedy v. General Geophysical Company, 213 S.W.2d 707 (Tex. Civ. App. -- Galveston 1948, writ ref'd n.r.e.), which has been cited as authority for the following propositions:

- (1) Seismic information obtained by extrapolation of subsurface data as it relates to one site does not constitute a trespass as to other sites; and
- (2) Absent injury to or entry upon the surface of the claimant's property, geophysical operations on adjoining lands are not actionable.

See Marrs, "Geophysical Trespass," 58 Texas Bar Journal 128 (February 1995). Besides discussing the leading cases on geophysical trespass, the article also discusses countervailing considerations including the wrongful appropriation of the right to explore.

In the above cases in which permission of the surface owner is required, if the surface of Whiteacre is owned by co-tenants, then the joinder of both co-tenants is probably necessary in view of the possibility that such use of the surface by one co-tenant would be deemed waste enjoinable by the other co-tenant. See Williams & Meyers, Oil and Gas Law, § 218.6 (1997). See, however, Lake v. Reid, 252 S.W.2d 978 (Tex. Civ. App. -- Texarkana 1952, no writ).

IX. CONCLUSION

Easements give an easement holder the right to use or to prevent using property he or she does not own or possess. This places the easement holder and possessor of the servient estate in the unique position of simultaneously utilizing the same piece of land. The

prevalence of easements and their nonpossessory nature creates a unique set of issues in drafting, interpretation and implementation. It is therefore, important to have a basic understanding of the manner in which they are created, their scope, transferability, and methods of termination. If the drillsite tract is bordered by or is crossed by a public roadway, then access to the drillsite will not be a problem. Otherwise, depending upon the facts, the oil and gas lessee may have problems in obtaining access to the drillsite. The oil and gas lease covering land should be reviewed carefully for specific grants of rights or restrictions on uses of the drillsite and nearby lands. The lessee should pay careful attention to the granting clause, the pooling provision, lease termination provisions and special use restriction clauses. The underlying title of both the surface and the minerals must be analyzed, and, depending upon the circumstances, it may be necessary to examine and analyze the title of nearby tracts which might provide access to the drillsite. The potential for statutory relief is limited. The lessee may well face acquiring a roadway easement to the drillsite. If that becomes necessary, the acquisition should be treated like acquiring any other real estate.

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XI. APPENDIX "A"

SURFACE DAMAGE AGREEMENT CHECKLIST

DAMAGES

- A. Realities of Money
 - 1. When:
 - a. Before work
 - b. After work
 - c. Split payments
 - d. Annuals
 - 2. How much
 - a. Risk
 - b. Real damages
 - c. Intangible damages
 - d. Value to buyer
 - 3. How
 - a. Check
 - b. Cash
 - c. Sight draft
 - d. Time draft
 - 4. Who
 - a. Lessee
 - b. Contractor
 - c. Agent
 - 5. Credit worthiness of payor
 - 6. Well Sites
 - 7. Deep well
 - a. Initial damages
 - b. Annual damages
 - 8. Methane well
 - a. Initial damages
 - b. Annual damages
 - 9. Strat well
 - a. Initial damages
- B. Roads
 - 1. Permanent shaled
 - a. Initial damages
 - b. Annual damages
 - 2. Permanent two track
 - a. Initial damages
- C. Annual damages
- D. Pipelines
 - 1. Flowlines
 - a. Initial damages
 - b. Annual damages
 - 2. Water Disposal Lines
 - a. Initial damages
 - b. Annual damages
 - 3. Large 4" or greater oil lines
 - a. Initial damages

- b. Annual damages
- 4. Large 4" or greater gas lines
 - a. Initial damage
 - b. Annual damage
- E. Compressor Stations
 - 1. Initial damages
 - 2. Annual damages
- F. Electrical lines Above the Ground
 - 1. Initial damages
 - 2. Annual damages
- G. Electrical Lines Below Ground
 - 1. Initial damages
 - 2. Annual damages
- H. Service access points

ACTIVITY OF CONCERN

- A. Surveyors
 - 1. When can they go?
 - 2. How will they go?
 - 3. How will they mark?
 - 4. Who will pick up junk?
 - 5. Will they get permission?
 - 6. How much will be paid for access?
- B. Seismic activities
 - 1. Hole
 - 2. Vibrosize
 - 3. 3D
 - 4. Types of damage
 - a. Surface
 - 1. Soil compaction
 - 2. Destruction of plant life
 - 3. Junk
 - 4. Time of operations
 - b. Water
 - 1. Drainage between formations
 - 2. Damage to existing wells or springs
 - 3. Who will pay?
- C. Drilling operations
 - 1. Depth
 - 2. Length to time of operations
 - 3. Time of year of operations
 - a. Size of pad
 - b. Width of easements
 - c. Location of drilling operations
 - d. Location of road
 - 1. Fences
 - 2. Snow
 - 3. Type of construction
 - 4. Weight to be carried on road
 - 5. Crossing of road
 - 6. Grade and Crown
 - 7. Soils

- a. Sandy
- b. Clays
- c. Expansive
- d. Compaction
- e. Erosion
 - (i) Wind
 - (ii) Water
- 8. Culverts
- 9. Gates
- 10. Cattle Guards
- 11. Deviation from established roads
- D. Junk
 - 1. Oil
 - 2. Mechanical work in field
 - 3. Survey and pin flags
 - 4. Placement of signage
 - 5. Duty to pick up trash
- E. Recreational uses
 - 1. Guns bows and crossbows
 - 2. Dogs
 - 3. Drugs
 - 4. Alcohol
 - 5. Recreation vehicles
 - a. Four wheelers and Motorcycles
 - b. 4 Wheel Drives
 - 6. Fishing
 - 7. Hunting
 - 8. Searching for artifacts
 - a. Paleo
 - b. Arch
- F. Operations in mud and snow
- G. Water Protection
 - 1. Drilling water
 - 2. Disposal of water
 - a. Quality of water
 - 1. Heavy metals
 - 2. Salts
 - 3. Temperature
 - b. Volume of Water
 - 1. Slope
 - c. Soil conditions
 - d. Protection of water resources
 - 1. Federal law to be considered
- (1). Federal Water Pollution Control Act (Clean Water Resources Act) of 1972 [PL92-500]
- (2). Coastal Zone Management Act of 1990 (CZAR) [101-508] applies to coastal states and Great Lakes states
- (3). Federal Agriculture Improvement Act of 1996 (1996 Farm Bill)
 - e. Endangered Species Act of 1973 [PL93-205]
 - a. Ownership of Federal Property
 - b. Bureau of Land Management
 - c. Forest Service
 - d. Park Service

- e. Bureau of Reclamation
- f. Department of Defense
- g. General Services Administration
- h. Corps of Engineers
- i. Indian Lands
 - (i) Tribe
 - (ii) Bureau of Indian Affairs
- 1. State law to be considered (Beneficial Use)
- a. Beneficial Use
 - (i) Riparian Doctrine
 - (ii) Appropriation Doctrine
 - (iii) Correlative Doctrine (ground water)
- b. State Water Quality Law and Program
- c. Storage of Water
 - (i) State Engineer
 - (ii) Corps of Engineers
- H. Soil pollution
- I. Noise pollution
- J. Light pollution
- K. Air pollution
- L. Protection of viewscape
- M. Protection of vegetative resource
 - 1. Growing crops
 - a. Harvest Time
 - b. Soil erosion
 - c. Turning expense
 - 2. Grass
 - 3. Fire
 - a. Vegetation
 - b. Timber
 - c. Structures
 - d. Livestock
- M. Extraordinary loss
 - 1. Livestock
 - 2. Wildlife
 - 3. Human
- N. Cooperation with others as to roads and water storage
- O. Reclamation
 - 1. Protection of soil and vegetative resource
 - 2. How graded
 - 3. How long open
 - 4. When seeded
 - 5. What seeded
 - 6. How seeded
 - 7. Wildlife areas
 - a. Riparian areas
 - b. Duck islands
 - c. Fish
 - 8. Noxious Weeds
 - a. 21 introduced species 1 native
 - b. How spread
 - c. Control
- P. Parking of equipment off road

- Q. Access Points (Security and protection of hunting)
- R. Time of operations
 - 1. Time of year
 - 2. Mud and snow
 - 3. Time of day
- S. Cooperation with other companies
- T. Changes in location of roads, electric lines, wells
- U. Dealing with Agencies
 - 1. BLM
 - a. On site inspection
 - b. Cultural surveys
 - 2. State Engineer
 - 3. Department of Environmental
 - 4. Quality
 - 5. Oil and Gas Commission

LEGAL CONCERNS

- A. ID of parties, addresses, phone #'s, tax ID
- B. Legal descriptions
- C. Notices
- D. Force Majeure
 - 1. Choice of jurisdiction and venue
 - 2. Release of liability and indemnification
- E. Statutory law citation
 - 1. Federal
 - 2. NEPA (National Environmental Protection Act) [PL 93-205]
 - 3. Clean Water Act Federal Water Pollution Control Act (Clean Water Resources Act) of 1972 [PL92-500]
 - a. Cultural Survey
 - b. National Historic Preservation Act of 1966 (P.L. 89-665; 16 U.S.C. 470)
 - c. Implementing regulation (36 CFR part 800)
 - d. Executive Order No. 11593 Protection and Enhancement of the Cultural Environment 2 CFR 154(1971) 16 U.S.C. 470
 - e. BLM Manual 8100.07 Responsibilities for Nonfederal Cultural Resources (i). 8143.06F (ii). BLM Manual Supp. (Wyo) 8143.11
 - 1. Instruction Memoranda
 - a. WY-86-457
 - b. WY-93-121
 - c. WY -93-138
 - d. OnShore Oil and Gas Order No. 1 (48 F.R. 48916) 21 Nov. 1983

entered

into

of

XII. APPENDIX "B"

SURFACE USE AND DAMAGE AGREEMENT [Sample promulgated by the Oil & Gas Accountability Project (OGAP)]

made and

This

Agreement

(Operator).
IT IS AGREED AS FOLLOWS:
1. The Land . Operator holds interests in oil and gas leases covering the following described lands in
2. Shallow Rights Only. Notwithstanding any other provision, the rights granted to Operator shall be limited to operations related to the drilling and producing of wells to the formation. Surface damages for operations related to the drilling and producing of wells to greater depths shall be by a separate agreement to be negotiated by Operator and Owner.
3. Right-of-Way. Owner grants Operator, its employees and designated agents, a private right-of-way to enter upon and use the above described lands, completing and producing oil and gas wells on Owner's land. However, access to the above described lands on Owner's portion of the private road known as the "" shall be by separate agreement.
4. Notification and Consultation. Operator shall notify Owner prior to entry upon Owner's land and shall consult with Owner as to the location of each well, road, pipeline, power line, pod or battery site, gathering system and other facility to be placed on Owner's land. To the maximum extent possible, Operator will use existing roads on Owner's land for its operations, and if construction of a new road is required, Operator will consult with Owner, and following such consultation locate the new road in a manner to cause the least interference with Owner's operations on the affected lands. If a pipeline or gathering system is installed by Operator, Operator will locate the pipeline and gathering system in a manner to cause the least interference with Owner's operations on the affected land. Operator shall notify Owner when each drilling and production operation for any well drilled on the above-described land has been completed and when Operator is permanently or temporarily absent from the surface.

5. **Termination of Rights.** The rights granted by Owner to Operator shall terminate when the Oil and Gas Lease terminates, Operator ceases its operations on the land, upon Operator's notification to Owner of Operator's intention to cease operations, or if Owner so elects, upon a breach of this Agreement by Operator, whichever shall occur first. Upon termination of this Agreement, Operator will execute and deliver to Owner a good and sufficient recordable release and surrender of all of Operator's rights under this Agreement, and will promptly remove all equipment and property

used or placed by Operator on Owner's land unless otherwise agreed by Owner in writing.

6. Nonexclusive Rights . The rights granted by Owner to Operator are nonexclusive, and Owner reserves the right to use all access roads and all surface and subsurface uses of the land affected by this Agreement and the right to grant successive easements thereon or across on such terms and conditions as Owner deems necessary or advisable.
7. Payments. As compensation for surface damages, Operator will pay to Owner: a. Stratigraphic Test. \$ per stratigraphic test (well drilled only to obtain geologic information not completed for production) on Owner's land. This amount shall be paid by Operator to Owner before entering upon the premises to drill. b. Well Locations. \$ for each well location. This amount shall be paid by Operator to Owner before entering upon the premises to drill the well. Operator shall also now to
Operator to Owner before entering upon the premises to drill the well. Operator shall also pay to Owner an annual rental of \$ per year for each well site location. This annual payment shall be made on the anniversary date of the commencement of drilling of each well in every year until the well has been plugged and abandoned and the location of any roads and pipelines constructed in connection therewith have been reclaimed.
c. Roads. Operator shall pay to Owner an initial access fee of \$ per rod for existing roads on Owner's land, and the rate of \$ per rod for new roads constructed by Operator or existing roads improved by Operator on Owner's land. Operator shall pay to Owner an annual access rental at the rate of \$ per rod for roads on Owner's land. The annual payment shall commence one year from the anniversary date set out in Paragraph 7.b. above for the well or wells served by such road, and shall be made on the anniversary date in every year until the road is reclaimed and restored by operator. Operator shall provide Owner with a plat showing the location and length of all roads promptly after their first use, construction or improvement. d. Pipelines.
i) For each gas gathering system pipeline and each water pipeline less than 8 inches in diameter installed by Operator, Operator shall pay to Owner the \$ per rod for each such pipeline unless pipelines are located in the same ditch, in which case a single payment shall be made. A take up of any such pipeline shall be at the rate of \$ per rod. For pipelines 8 inches in diameter or larger installed by Operator, Operator shall pay to Owner the \$ per rod for each such pipeline. A take up of any such pipeline shall be at the rate of \$ per rod. Payments for pipelines shall be made by Operator to Owner within fifteen (15) days after installation or take up of the pipeline. There shall be no annual rental payment.
ii) The pipelines referred to in this paragraph are only those gathering system pipelines used with wells drilled on Owner's land or as allowed under Paragraph 8 below. Surface damages for high pressure (greater than 970 psig) gas transmission pipelines serving lands other than those owned by Owner shall be by separate agreement. iii) Operator shall be responsible for backfilling, repacking, reseeding and recontouring the surface so as not to interfere with Owner's operations. Operator shall provide Owner with a plat showing the length and location of all pipelines and gathering systems promptly after their installation. All pipelines and gathering systems by Operator on the premises shall be buried to the depth of at least three (3) feet below the surface. Owner reserves the right to occupy, use and cultivate the lands affected by such pipelines, and to grant such rights to others, so long as such use does not interfere with Operator's operations. If Operator fails to use any pipeline for a period over 24 consecutive months, the pipeline shall be deemed abandoned and Operator shall promptly take all actions necessary or desirable to clean up, mitigate the effects of use, and render the pipeline environmentally safe and fit for abandonment in place. All such clean up and mitigation shall be performed in compliance with all federal, state and local laws and regulations. e. Gathering, Metering and Compression Sites. For each central gathering facility or "battery site" Operator shall pay to Owner an initial fee of \$ This amount shall be paid by Operator to Owner before entering upon the premises to construct the battery site. Operator shall also pay to Owner an annual rental of \$ per year for each

battery site location.

f. Power Lines.

- i) Operator will consult with Owner and with the independent power company supplying power to Operator regarding the location of overhead power lines prior to construction. Overhead power lines will be constructed to cause the least possible interference with Owner's visual landscape and Owner's existing and future ranching operations, and, to the maximum extent possible, overhead power lines will be constructed along fence lines or property lines. Construction shall not begin unless Owner has consented to the location of such power lines.
- ii) All power lines constructed by Operator downstream of the independent power company's meters shall be buried and all power line trenches shall be fully reclaimed and reseeded to the satisfaction of Owner. For buried power lines, Operator shall pay Owner a one-time payment of \$_____ per rod unless such power line is installed in the same ditch and as the pipelines described, in which case there will be no duplication of payment.
- g. Increase or Decrease in Payments. On the fifth anniversary of this Surface and Damage Agreement, and every five years, surface damage payments provided for in this paragraph shall be increased or decreased (but never below the amounts stated) by a percentage equal to the increase or decrease in the Consumer Price Index as published by the United States Department of Commerce for the preceding five year period.
- 8. **Limitation on Rights**. Owner's land may not be used with operations on other lands owned by Owner not described or on other premises not owned or leased by Owner without Owner's written consent.
- 9. **Locations.** All well site locations shall be limited to approximately one (1) acre of land while drilling and only one-half (½) acre for permanent facilities. No wells shall be drilled within 1,000 feet of any residence, house or barn on the property without the prior written consent of Owner. No housing or dwelling unit shall be constructed or placed on Owner's land by Operator.
- 10. Operations. Operator shall 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 spray for noxious weeds upon reasonable demand therefore by Owner. All cattleguards and 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 Owner's land. Operator shall remove only the minimum vegetation necessary to construct roads and facilities. Topsoil shall be conserved during excavation and reused as cover on disturbed areas to facilitate regrowth of vegetation. No construction or routine maintenance activities will be performed when the soil is too wet to adequately support construction equipment. If such equipment creates ruts over two inches deep, the soil shall be deemed too wet to adequately support construction equipment. All culverts shall be at least 18 inches in diameter. All surface facilities not subject to safety requirements shall be painted to blend with the natural color of the landscape. Only truck mounted drilling rigs may drill on the property, and no seismic operations shall be permitted without Owner's written consent.
- 11. **Consolidation of Facilities.** Whenever possible, Operator will consolidate its facilities for as many wells as practical. Incoming power will be at centralized points to minimize to the maximum extent possible constructing above ground power lines. Battery sites will serve many wells as reasonably possible. The consolidated facilities may not be used for operations connected with lands not owned by Owner or with lands owned or leased by Owner not described.
- 12. **Dry Hole**. If Operator does not discover oil and gas in paying quantities at a well site and determines the well to be a "dry hole" or upon cessation of production, Operator will give Owner thirty (30) days written notice of the opportunity to take over any abandoned well and convert the well to a water well. If Owner elects in writing to take over the abandoned well and convert the well

to a water well, then the Owner will assume all liability and costs associated with the well, and both parties shall execute any and all documents necessary to provide that the water in the well shall become the property and responsibility of the Owner. If Owner does not elect to take over the well and convert it to a water well, then Operator shall fill and level the location, re-contour the location, distribute the top soil, make the location ready for reseeding and reseed the area, and plug and abandon the well as required by applicable law and regulations. All cleanup and restoration requirements shall be completed, if weather permits, by Operator within six (6) months after termination of drilling or production activities at the well site.

- 13. **New Roads.** Any new roads constructed by or for Operator shall be limited to twenty (20) feet in width for the traveled roadbed, with a reasonable width, not to exceed fifteen (15) feet from the edge of the traveled roadbed for fills, shoulders and crosses. No permanent roads will be constructed and Owner consents to the construction and location of the road. Operator shall annually maintain existing and newly constructed roads used by Operator to the satisfaction of Owner, which maintenance may include shaling, ditching, graveling, blading, installing and cleaning culverts, suppressing dust and spraying for noxious weeds.
- 14. **Fences.** Operator shall construct stock-tight fences around any dangerous area, including any pits where Operator drills wells. Operator shall rehabilitate and restore all disturbed areas caused by Operator's operations within six (6) months after termination of drilling or production activities at the well site and right-of-way, unless inclement weather prevents such rehabilitation and restoration within that time period.
- 15. **Cattleguards.** Operator shall construct cattleguards with wings at all fence crossings designated by Owner. Installation of the cattleguards shall be at the sole cost and expense of Operator. Cattleguards shall not be less than 16 feet wide by 8 feet across and shall be set on concrete sills not less than 24 inches high by 16 inches wide. Fence braces shall be installed on each side of the cattleguards. Fence braces shall be constructed of like quality material and installed in like style and form as the fence braces constructed on.
- 16. **Owner's lands**. Cattleguards shall be constructed approximately 6 inches above the existing grade of the road so water does not run into the cattleguard. Operator shall be responsible for maintenance of all cattleguards used by Operator, with wings and attached braces. All cattleguards in existence on roads used by Operator not aligned with existing fence lines shall be reconstructed by Operator to be in line with the fence.
- 17. **Improvements.** No fences, cattleguards or other improvements on Owner's property shall be cut or damaged by Operator without the prior written consent of Owner and the payment of additional damages or the institution of other safeguards to protect the rights and property of the Owner. Upon final termination of Operator's rights under this Agreement, Operator shall return all roads and other rights-of-way or sites as near as practical to the condition which they were in prior to the execution of this Agreement, unless otherwise agreed by Owner. Unless otherwise agreed by Owner, all disturbed areas caused by Operator's activities will be reseeded. Cattleguards shall be removed and fences restored as near as practical to the original condition unless otherwise agreed by Owner, in which case all cattleguards installed by Operator shall become the property of Owner. All cattleguards and fences installed by Operator shall be kept clean and in good repair.
- 18. **Fencing of Access Roads.** Operator will fence no access roads without the prior consent of Owner.
- 19. Purchase of Shale and Water. If Operator's activities require using shale, gravel, or water, where reasonable and practicable Operator shall purchase shale, gravel, or water from Owner at the rates prevailing. Operator recognizes Owner's concern about importation of noxious weeds onto

Owner's land and, therefore, agrees wherever possible to purchase shale, gravel, or water from Owner.

- 20. **First Preference for Work.** Operator shall give first preference to Owner in awarding contracts for any work required to be performed on Owner's land under this Agreement, including but not limited to earthmoving, grading or plowing roads, spraying noxious weeds, or reseeding, provided that Owner has the equipment necessary to accomplish the work, can adequately perform the work and is willing to perform the work at rates prevailing.
- 21. Payments. The payments provided are acknowledged by Owner as sufficient and in full satisfaction for damages to Owner caused or created by the reasonable and customary entry, rightsof-way and operation and use of the roads and well sites, but do not include damage to livestock, buildings or improvements, or injuries to persons or to any damage or destruction caused to Owner's wells or water supply on the property. Operator shall be liable for damages of its operations, any water on or under the premises which had been potable is affected to the extent that it is rendered nonpotable for humans, cattle or other ranch animals on Owner's premises, or any such water supply, well or reservoir be destroyed or its output diminished. Operator shall be liable for any downstream damage caused to other lands or the operations of other landowners. This Agreement does not relieve Operator from liability due to Operator's negligence or due to spills or discharges of any hydrocarbon or toxic or hazardous chemicals or wastes, or from leaks or breaks in Operator's pipelines. Damage to livestock and damage to crops shall be paid for by Operator at current market value. Any fires caused by Operator's personnel, agents, or assigns shall be paid for by paying the cost of replacement pasture, the costs of trailing or trucking cattle to replacement pasture plus replacement and/or repair costs for all personal property destroyed or damaged. The cost of replacement pasture will be determined by the amount accepted in the area for like kind pasture.
- 22. **Restoration**. Unless Owner otherwise agrees in writing, upon termination of Operator's operations on Owner's land, Operator shall fully restore and level the surface of the land affected by such terminated operations as near to the contours which existed prior to such operations. Operator shall use water bars and such other measures to prevent erosion and nonsource pollution. Operator shall fully restore all private roads and drainage and irrigation ditches disturbed by Operator's operations as near to the condition which existed prior to such operations. All surface restoration shall be accomplished to the satisfaction of Owner.
- 23. Reseeding. All reseeding shall be done with suitable grasses selected by Owner and during a planting period selected by Owner. Reseeding shall be done at the rate of twelve (12) pounds of seed per acre for range land, and an amount to be determined by Owner for irrigated ground. Absent direction from Owner, no reseeding (except for borrow pits) will be required on any existing access roads. It shall be the duty of Operator to ensure a growing ground cover is established upon the disturbed soils and Operator shall reseed 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. Operator shall inspect disturbed areas at such times as Owner shall reasonably request 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. Operator recognizes 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.
- 24. No Warranty. Owner makes no warranty of title or otherwise in entering into this Agreement.
- 25. **Nondisturbance.** Operator and its employees and authorized agents shall not disturb, use or travel upon the land of Owner not subject to this Agreement.

- 26. **Firearms and Explosives.** None of Operator's employees or authorized agents or any other person under the direction or control of Operator shall be permitted to carry firearms or any weapon while crossing Owner's property and such persons shall not hunt or fish on Owner's property and shall not trespass on Owner's property to hunt or fish or recreational uses. No dogs will be permitted on Owner's property. No explosives shall be used on Owner's property. Operator will notify all of its contractors, agents and employees that no dogs, firearms, weapons, hunting, fishing or recreational activities will be allowed on Owner's property.
- 27. **Surface Owner's Water**. Operator shall not disturb, interfere with, fill, or block any creek, reservoir, spring, or other source of water on Owner's land. Before conducting any drilling operations, Operator, at its sole cost and expense, will measure or cause to be measured the static water level and productive capacity of all water wells and springs on Owner's land within one mile of Operator's wells, and will test the water wells for methane. Operator shall also provide Owner a chemical analysis of all wells and springs within one mile of Operator's wells, which analysis shall measure, at a minimum:

pH
Hardness (ppm and grains/gallon)
Conductivity (mmhos/cm)
Sodium Absorption Ratio
Adjusted Sodium Absorption Ratio
Cation/Anion Ratio
PPM of Calcium, Magnesium, Potassium, Sodium, Iron
Total Alkalinity (CaCO3)
Carbonate
Bicarbonate

Hydroxide
Chloride
Sulfur as SO4
Salt Concentration (TDS)
Boron
Nitrate
Nitrite

Ammonia Nitrogen Phosphorus Methane

Owner shall be notified prior to such testing and measuring and Owner or its agents or representatives shall have the right to be present during such testing and measuring. The results of these tests and measurements will be immediately provided to Owner. Operator shall establish a continuing water well monitoring program to identify changes in the capacity of any water wells on Owner's land and in the methane content of the wells, and Operator shall immediately provide that monitoring data to Owner.

- 28. Loss or Impairment of Water Wells or Springs. If any water well or spring on Owner's land is lost or materially diminished in productivity, or the quality of water produced by such well or spring is reduced so the water is unusable by livestock or humans because of production of oil, gas, or water by Operator, Operator shall, at its expense, immediately repair or replace any water well or spring lost or diminished in productivity with a new water well or spring at least equal in productivity and quality of water to the lost or diminished well or spring, using a water well drilling contractor acceptable to Owner.
- 29. **Produced Water.** Surface discharge of produced water will be allowed on Owner's land only with Owner's prior written consent, and only after Owner has approved, in writing, Operator's written water management plan for each discharge point on Owner's land. Such discharge will be permitted only if it does not degrade or adversely affect the quality of water in reservoirs and water courses on Owner's land or otherwise damage Owner's land. If Owner does not consent to surface discharge of produced water, Operator shall pipe water off Owner's land and arrange for discharge with adjacent landowners. All water produced and discharged from Operator's wells shall be produced and discharged under all applicable rules and regulations of any governmental authority. Whenever possible, and if Owner so consents, the produced water shall be discharged directly into an existing drainage system or reservoir, if allowed by applicable laws and regulations, and if the discharge will not degrade or adversely affect the quality of water in the drainage system or

reservoir, so that the Owner may use the water. Produced water shall be discharged to cause the least surface disturbance and damage to Owner's land.

- 30. **Reservoirs.** If Owner consents to the discharge of produced water but does not wish Operator to discharge its produced water into Owner's existing reservoirs, Operator shall be solely responsible for finding a suitable water discharge location acceptable to Owner, building the catchment structures (including pipelines, dikes, dams, and outlet piping) and maintaining the same at its sole cost, risk and expense. Similarly, if Operator requests and is granted permission to use Owner's reservoirs, should any such reservoirs require modification, upgrading and/or improvement to hold Operator's produced water, any such modification, upgrading or improvement shall be done at Operator's sole cost, risk and expense. Owner shall not be responsible for payment of any cost associated with Operator's development activities which shall include, but not be limited to water discharge, catchment of produced water or maintenance of any related facilities.
- 31. Water Well Mitigation Agreement. Operator knows its operations may impact domestic and/or agricultural water wells in the vicinity of coal bed methane producing wells. In order that the parties hereto may avoid potential future conflict regarding loss of use or degradation of existing water wells by Owner, Owner and Operator adopt the terms and conditions of the Water Well Mitigation Agreement attached hereto as Exhibit "A," to the extent that the terms of Exhibit "A" are not inconsistent with this Agreement.
- 32. **Enforcement Costs.** If Operator defaults under this Agreement, Operator shall pay all costs and expenses, including a reasonable attorney's fee, incurred by Owner in enforcing this Agreement.
- 33. **Time.** Time is of the essence in this Agreement.
- 34. **Indemnification.** To the maximum extent permitted by law, Operator will indemnify, defend and hold Owner, and if applicable, Owner's officers, directors, employees, agents, successors and assigns harmless from any and all claims, liabilities, demands, suits, losses, damages and costs (including, without limitation, any attorney fees) which may arise out of or be related to Operator's activities on Owner's property (including, without limitation, any claims Operator's operations are illegal, unauthorized, or constitute an improper interference with any parties' rights, or have damaged the lands or operations of adjacent landowners, and including any claims based on the alleged concurrent negligence of Owner).
- 35. **Compliance with Law.** Operator shall conduct operations and activities under existing local, state and federal laws, rules and regulations.
- 36. **Release.** To the maximum extent permitted by law, Operator releases and waives and discharges Owner, and, if applicable, Owner's officers, directors, employees, agents, successors and assigns from any and all liabilities for personal injury, death, property damage or otherwise arising out of Operator's operations under this Agreement or use of Owner's property.
- 37. **Notice.** Notice may be given to either party to this Agreement by depositing the same in the United States mail postage prepaid, duly addressed to the other party at the address set out below the party's signature on this Agreement. Such notice shall be deemed delivered when deposited in the United States mail.
- 38. **Designated Contact Person.** Operator and Owner will each from time to time designate an individual, with appropriate twenty-four hour telephone and fax numbers, who is the primary contact person for discussions and decisions concerning matters related to this Agreement.
- 39. Recording. This Agreement may not be recorded without the written consent of Owner.

40. Construction of Agreement. This Agreement shall be construed under the laws of Texas.

XIII. APPENDIX "C"

REPRESENTATIVE FORCE MAJEURE PROVISION [REVISED]

Lessee shall not be liable for delays or defaults in performing any agreement or covenant in this Lease due to force majeure. The term "force majeure" shall mean: any act of God including, but not limited to storms, floods, washouts, landslides, and lightening; acts of the public enemy; wars, blockades, insurrection or riots; strikes or lockouts; epidemics or quarantine regulations; laws, acts, orders, or requests of federal, state, municipal or other governments or other governmental officers or agents under color of authority; freight embargoes or failures; exhaustion or unavailability or delays in delivery of any product, labor, service or material [or denial or delay of access to the <u>leased premises</u>]. If Lessee is required, ordered, or directed by any federal, state, or municipal law, executive order, rule, regulation, or request enacted or promulgated under color of authority to cease drilling operations, reworking operations or producing operations on the lands covered by this Lease, or if Lessee by force majeure is prevented from conducting drilling operations, reworking operations, or producing operations, then until such law, order, rule, regulation, request, or force majeure is terminated and for a period of ninety (90) days after such termination every provision of this Lease that might operate to terminate it or the estate conveyed by it shall be suspended and inoperative and this Lease shall continue in full force. If any period of suspension occurs during the Primary Term, that time shall be added to the Primary Term.

XIV. APPENDIX "D"

TRANSPORTATION CODE TITLE 6. ROADWAYS SUBTITLE C. COUNTY ROADS AND BRIDGES CHAPTER 251. GENERAL COUNTY AUTHORITY RELATING TO ROADS AND BRIDGES [Emphasis and italics added]

TRANSPORTATION CODE TITLE 6. ROADWAYS SUBTITLE C. COUNTY ROADS AND BRIDGES CHAPTER 251. GENERAL COUNTY AUTHORITY RELATING TO ROADS AND BRIDGES SUBCHAPTER A. GENERAL PROVISIONS

Sec. 251.053. NEIGHBORHOOD ROADS.

- (a) As provided by this section, a commissioners court may declare as a public road:
 - (1) any line between the locations of any persons;
 - (2) any section line; or
 - (3) any practical route that is convenient to property owners while avoiding hills, mountains, or streams through any enclosures.
- (b) A person who owns real property to which there is no public road or other public means of access <u>may</u> request that an access road be established connecting the person's real property to the county public road system by making a sworn application to the commissioners court requesting the court to establish the road. The application must:
 - (1) designate the lines sought to be opened;
 - (2) include the names and places of residence of the persons that would be affected by the establishment of the road; and
 - (3) describe why the road is necessary.
- (c) After an application is filed, the county clerk shall issue notice to the sheriff or constable commanding that officer to summon each property owner affected by the application. The sheriff or constable shall serve the summons and make a return in the manner in which process is served in a civil action in a justice court. A property owner summoned must appear at the next regular term of the commissioners court if the property owner elects to contest the application.
- (d) At a regular term of court following the service of the summons under Subsection (c), the commissioners court **may** hear evidence as to the truth of the application. If the court determines that the applicants do not have access to their real property and premises, the court **may** issue an order declaring the lines designated in the application, or other lines established by the court, to be a public road. The court **may** direct the public road to be opened by the property owners and to remain open for a width of not less than 15 feet or more than 30 feet on each side of a designated line. The marked trees or other objects used to designate the lines or the corners of the survey **may** not be removed or defaced. Notice of the court's order shall be served immediately on the property owners and a return of the notice made in the manner provided by Subsection (c) for a return under that subsection. A copy of the order shall be filed in the deed records in the office of the county clerk.
- (e) Damages to property owners incident to the opening of a road under this section shall be assessed by a jury of property owners in the manner provided for other public roads. The county shall pay all costs incurred in connection with the proceedings to open a road under this section.
- (f) The commissioners court is not required to maintain a road established under this section using county employees but shall make the road initially suitable for use as an access public road.
- (g) In the case of a public road established under this section that involves an enclosure of 1,280 acres or more, a person who for 12 months after the person receives notice of the court's order issued under Subsection (d) fails, neglects, or refuses to leave open the person's real property free from all obstructions for 15 feet on the person's side of the line designated by the order commits an offense. An offense under this subsection is a misdemeanor punishable by a fine not to exceed \$20 for each

month that the person fails, neglects, or refuses to do so after the first 12 months after the person receives the notice.

Acts 1995, 74th Leg., ch. 165, Sec. 1, eff. Sept. 1, 1995.

Sec. 251.054. LAYING OUT NEW ROADS BY JURY OF VIEW.

- (a) A new road ordered by the commissioners court of a county must be laid out by a jury of view comprising five property owners appointed by the commissioners court. The jury of view shall lay out the road to the greatest advantage of the public and shall survey and describe the road. The commissioners court **may** order the county surveyor to cooperate with the jury. The jury shall make a report of its proceedings, including its field notes, survey, or other description of the road, to the court at its next term after the jury has completed its duties.
- (b) Not later than the 10th day after the date the commissioners court appoints a jury of view, the clerk of the court shall prepare and deliver to the sheriff two copies of the appointing order, endorsed with the date of that order, for each person appointed. Not later than the 20th day after the date the sheriff receives the copies, the sheriff shall serve one copy of the order on each person appointed in person or by leaving it at the person's usual place of residence. The sheriff shall make the return of service to the clerk on the duplicate copy, stating the date and manner of service or the reason that service was not completed, as applicable.
- (c) A person summoned as a juror of view who fails or refuses to perform the service required by law as a juror is liable to the county for a fine of \$10. The fine **may** be recovered by the county attorney or district attorney through a judgment obtained in the name of the county.
- (d) Before assuming the duties of a juror of view, each person appointed must take the following oath: "I, _____, do solemnly swear that I will lay out the road now directed to be laid out by the order to us directed from the commissioners court, according to law, without favor or affection, malice or hatred, to the best of my skill and knowledge. So help me God."
- (e) The jury of view shall issue a written notice of the time at which it will lay out the road or assess damages incidental to the opening of the road. Not later than the fifth day before the date set out in the notice for action by the jury, the notice must be served on each property owner, or the property owner's agent or attorney, through whose real property the road **may** pass. Notice to a property owner who is not a resident of the county **may** be given by publication of the notice in a newspaper of circulation in the county once a week for four consecutive weeks before the road is established. Cost of publication shall be paid as directed by order of the commissioners court.
- (f) At or before the time set out in the notice for action by the jury of view, a property owner **may** present to the jury a written statement of the damages claimed by the property owner incidental to the opening of the road. The jury shall assess the damages incurred by each property owner and return the assessment and the statement of damages claimed by the property owner with the jury's report. If the commissioners court approves the report and orders the road to be opened, it shall consider the jury's assessment of damages and the property owner's statement and allow the property owner just damages and adequate compensation for the real property taken. If no objection is made to the jury's report and the court considers the road sufficiently important, the court **may** take action to open the road after the court:
 - (1) makes payment of any compensation allowed to property owners or secures a special deposit with the county treasurer to the property owners for any compensation allowed; and
 - (2) notifies the property owners of the payment or deposit.
- (g) A property owner **may** appeal the assessment of damages in the manner provided for an appeal from a justice court. An appeal is limited to the issue of the amount of damages incurred by the property owner and **may** not prevent the opening of the road.

Acts 1995, 74th Leg., ch. 165, Sec. 1, eff. Sept. 1, 1995.

XV. APPENDIX "E"

MARKING BOUNDARY AS NOTICE TO CRIMINAL TRESPASSERS and BULLETS MAY NOT CROSS PROPERTY LINES

Marking Boundary as Notice to Criminal Trespassers

To establish the crime of criminal trespass under the Texas Penal Code, the person must either have had notice that the entry was forbidden, or have received notice to depart but failed to do so. "Notice" can be accomplished by: (a) fencing which is obviously designed to contain livestock; (b) a sign or signs posted on the property reasonably likely to come to the attention of intruders, indicating that entry is forbidden; (c) the placement of identifying purple paint marks on trees or posts on the property, provided that the marks are: (i) vertical lines of not less than eight inches in length and not less than one inch in width; (ii) placed so that the bottom of the mark is not less than three feet from the ground or more than five feet from the ground; and (iii) placed at locations that are readily visible to any person approaching the property and no more than: (a) 100 feet apart on forest land; or (b) 1,000 feet apart on land other than forest land; or (d) the visible presence on the property of a crop grown for human consumption that is under cultivation, in the process of being harvested, or marketable if harvested at the time of entry. [V.T.C.A., Penal Code § 30.05]

Bullets May Not Cross Property Lines

It is unlawful to knowingly discharge a firearm which causes the projectile from the firearm to travel across a property line [Parks & Wildlife Code § 62.0121].

XVI. APPENDIX "F"

THEORETICAL MODEL OF ESTIMATING DAMAGES OF OIL AND GAS ACTIVITIES TO SURFACE OWNER ESTATE*

SD = PV - (W RW + S + A + N + V + RLA + RHBU + PVRI + ATE + ELE + HAZ + STIG + RMORT + AR) (NW^x)

SD = Damages due surface owner at t^o or in stages of oil and gas development.

PV = Present value of surface estate in an undisturbed state before drilling.

W = Water, surface/subsurface contamination through production practices, spills and injection/disposal wells.

RW = Reduction in water supplies or quantity through dropping water table.

S = Soil, surface/subsurface contamination through production practices, spills and injection/disposal wells.

A = Air - pollution/dust/odors/smells, etc.

N = Noise - compressors, pumping units, well servicing operation, daily vehicular traffic.

SW = Solid waste – some operators dispose of solid wastes inappropriately at well sites and pits.

V = Visual – changes in the landscape and natural environment.

RLA = Reduction in usable land area (value).

RHBU = Reduction in highest and best use of total parcel of land potential.

PVRI = Present value in future agricultural income because of reduced usable land area caused by well site, roads, rights-of-way, etc.

ATE = Additional title encumbrances to the property:

• Mineral leases

• Oil and gas transmission pipeline easements

• Electric utility easements

Access road easements or rights

ELE= Environmental law exposure to landowner

HAZ = Personal or livestock health hazards, fire, chemical, accidents, spills, etc.

STIG = Reduced property value due to stigma.

RMORT = Reduced property value due to reduced mortgageability.

AR = Aesthetics and/or privacy.

NW^x = Number of wells factor that will be drilled or could be drilled on the property (spacing factor). The initial lease may allow multiple wells to be drilled (depending on depth, field rules and other factors). For example every 10, 40, 80 or 160 acres.

As a theoretical model of estimating damages of oil and gas activities to the surface owner estate all factors would not be present with every well drilled, and it would be necessary for an appraiser to consider the effect on any tract of land on a case-by-case basis. Oil and gas activity at the surface can have important land value implications, and this model is offered to ensure these factors are considered in an appraiser's analysis. Those factors that are not readily quantifiable or present at a location would weigh less in the appraiser's concluding valuation report. Baen, John S., PhD "The Impact of Mineral Rights and Oil and Gas Activities on Agricultural Land Values" The Appraisal Journal (January 1996).

^{*} This equation represents theoretical factors that should be considered by appraisers. It is, however, no substitute or replacement for the professional judgment as to the market value impact on a subject property.