
PENNSYLVANIA PROPERTY OWNER HANDBOOK FOR LEASING OIL AND GAS

Prepared by Law Offices of Donald D. Saxton, Jr.

March, 2008

8 East Pine Avenue

Washington, PA 15301

(724) 228-8115

e-mail: dsaxton@donaldsaxtonlaw.com

website: donaldsaxtonlaw.com

© April 15, 2008

Law Offices of Donald D. Saxton, Jr.

PENNSYLVANIA PROPERTY OWNER HANDBOOK FOR LEASING OIL AND GAS

Is Oil and Gas a Mineral?

In Pennsylvania for contractual purposes, the courts have not considered oil and gas as a mineral. Thus, to transfer the oil and gas interest, it must be clear in the contract used that it is the intent of the parties that oil and gas is being transferred by expressly using the words “oil and gas.” Nevertheless, the Pennsylvania courts have ruled that the same rights of ownership which apply to solid minerals, such as coal, apply to oil and gas.

The Oil and Gas Lease

The oil and gas industry is built around the oil and gas lease and there is no such thing as a “standard” oil and gas lease. “Land agents” often approach oil and gas owners with a form lease labeled “Producers 88” and imply or state that it is the standard form employed in the industry. Nearly every operating company has developed its own form of the “Producers 88” lease which will contain provisions the oil and gas operator believes to be important to it and favors its interests and not the interests of the land owner.

Most land owners have limited leverage to negotiate a complete revision of the lease presented by the land agent or to demand that a form of lease of their choosing be utilized rather than the operator’s form of lease. Nevertheless, a land owner may achieve some of his aims by altering the form presented and by adding clauses to the form by means of a “rider” or “addendum.”

Some of the clauses likely to be in the proposed form lease will be discussed and some suggested modifications to these clauses are set forth.

There are certain clauses and provisions in an oil and gas lease form which are common to all oil and gas leases . For example, it is common that the lease provide for a “primary” term of a fixed period of time such as a number of years (two to ten years) and a “secondary” term which is established by the “habendum” clause extending the lease term beyond the primary term based upon the continuation of operations such as production of oil and/or gas in “paying quantities” or other activity such as paying shut-in royalty or conducting re-working operations. Clauses providing for delay rentals, royalties, a change in ownership and a proportionate reduction of royalty are also common to most leases.

Consideration

An oil and gas lease, like other contracts, must be supported by some form of payment or consideration. The consideration to support the lease may be the initial bonus payment to induce the land owner to enter into the lease, which is often characterized as a “signing bonus” and is usually calculated as a dollar amount multiplied by the number of acres contained in the leased premises. Notwithstanding the “bonus,” the principal consideration for the landowner entering into the lease is the lessee’s development of the lessor’s property for the production of oil and gas and the payment of royalties to the landowner for the oil and gas produced.

The lease may also provide for consideration in the form of a “delay rental.” Generally, this is a payment of an amount at specific intervals during the primary term of the lease to compensate the landowner for delaying drilling a well on the premises. It is frequently calculated by a dollar amount multiplied by the lease acreage. Notwithstanding the payment of “delay rental,” if a well is not

drilled by the end of the primary term, the lease terminates unless some other provision of the lease allows the lease to continue.

What Does the Lease Grant?

Generally, the lease grants to the oil and gas operator the exclusive right to develop and produce the oil and gas underlying the land for the duration of the term of the lease. Depending on the language in the granting clause, the lease may transfer the legal ownership to the oil and gas in place to the lessee, or, it may grant a lease of the land to develop and produce the oil and gas and the ownership to the oil and gas to the operator as it is brought to the surface. The legal effects of these differing ownership theories can be significant but that subject is too technical to examine in this Handbook. The actual terms of the grant contained in the lease should be discussed with an attorney familiar with the technical legal theories of oil and gas leases which courts have placed on them.

The “granting clause” of the lease sets forth the rights transferred to the operator. The clause may be very specific or it may be general. Modern lease forms have enlarged the grant to the operator to expand the nature and the extent of the operator’s rights to conduct operations and the types of products it covers. These expanded granting clauses are designed to avoid controversy as to the operator’s rights granting broad rights to use the land without payment of additional compensation to the landowner for uses which may be related to operations but not actually be necessary to explore for and produce oil and gas. (An extreme example of such a broad grant found in an old lease provided for the lessee to have the right to construct housing for employees on the premises as part of the grant.

What is the Scope of the Grant?

Generally, the operator will want the grant to include the right to search for and develop and produce “other minerals” and coal bed methane gas as well as oil and gas. The use of the term “other minerals” and “coal bed methane gas” is much too broad and should be avoided.

The operator will also want the lease to include the right to construct structures and facilities on the land to treat, process, store and transport oil, gas and other the materials produced. Examples of these additional uses of the land can include facilities for compression of gas to enable it to enter a pipeline, dehydration and other treatment processes to make the gas suitable for its transmission and sale to enter a pipeline. These additional facilities will be an additional burden on the surface of the land. These additional burdens on the land without the lessor being compensated for them results in a reduction in the value of the royalty payable to the lessor for the oil and gas produced.

What is a Mother Hubbard Clause?

A “Mother Hubbard Clause” is a “cover-all” clause usually inserted into the granting clause of the lease providing that the lease also covers and includes any and all land owned or claimed by the coal owner adjacent or contiguous to the land described in the lease. The clause is to protect the operator from inadequate legal descriptions. Because Mother Hubbard clauses are so broadly drafted, they include lands the landowner did not intend to be included in the lease. This clause should be deleted from the form lease. A better practice is to use a full metes and bounds legal description of the land to be subject to the lease or a deed book reference to search a precise description.

Ancillary Facilities

The demand for natural and methane gas as a fuel by customers in most of the continental United States has resulted in the development of massive interstate pipeline systems transporting the gas from the producing areas to various parts of the country for distribution and the development of

an intricate system of pipelines in the local area to deliver the gas to the consumer. This development requires the construction of gas plants in the area of production, which has brought about an enlargement of the granting clause in many leases to permit the construction and operation of regulators and processing plants.

If the processing plant and related facilities are to apply only to the gas produced from the particular lease in question, the application of the expanded grant is uncomplicated. However, where the plant and the other facilities are to receive and treat gas from different leases, the plant site should not be acquired under the provisions of a simple lease. A separate agreement for the site must be negotiated. To address this need operator's frequently want to include provisions granting it the right to build facilities and pipelines on the landowner's land which will process and transport gas produced elsewhere without payment to the landowner for this additional burden on his land.

The granting clause which includes a grant to use the landowner's other land in addition to the leased premises to construct structures and facilities on the landowner's other land without compensation is much too broad. The landowner should restrict construction of support facilities to the land where the well site is located and then only permit such construction when the landowner specifically approves these facilities and is paid adequate compensation for the use of the land.

The following is an example of a lease clause expanding the grant for additional facilities:

The lessor lets exclusively to lessee all of the tract of land for the purpose of drilling, operating for, producing, removing and marketing oil and gas and to transport by pipelines or otherwise across and through said lands oil and gas and their constituents from the subject lands and other lands, regardless of the source of such production or their location of the wells, which right to transport production from other properties across the leasehold premises shall extend the term of this lease for so long as the transportation of such production is desired by the lessee and if placing tanks, equipment, roads and structures thereon to procure and operate for the said products, together with the right to enter into and upon the leased premises at all times for the aforesaid purposes. (emphasis supplied)

The ancillary facilities clause burdens the land for use to process gas produced from other lands and to extend the term of the lease for so long as gas produced on other land by the lessee being processed on the landowner's land without paying compensation to the landowner. This clause not only expands the use of the landowner's land for the benefit of the operator and the owner of other lands, but also extends the lease term even when there is no production of gas taking place on the landowner's land.

An example of a granting clause which could be used in contrast to the above example and more attuned to the landowner's interests is as follows:

In consideration of the sum of One (\$1.00) Dollar in hand paid, the receipt of which is hereby acknowledged, and in further consideration of the covenants and agreements herein contained, Lessor hereby leases and lets exclusively to Lessee, its successors and assigns, for the purpose of exploring for by conducting geological, geophysical work including core drilling, developing, drilling and operating wells, producing, marketing, transporting oil, liquid hydrocarbons, all gases and all constituent products and gas along with all hydrocarbon substances produced in association therewith but excluding coal bed methane gas using methods or techniques which are not restricted to currently employed technology and/or conducting secondary recovery operations by injecting gases, water and other fluids and air into productive subsurface strata from the surface to a depth not to exceed _____ (to be negotiated) _____, the following described land. (emphasis supplied)

This clause should also be qualified by a provision clearly setting out the ancillary rights of the lessee such as the following:

ANCILLARY RIGHTS

- (a) During the Term - Lessor grants to the Lessee the right to ingress and egress over, under and through the Leased Premises with the right to maintain roads, pipelines, tanks, structures, electric lines, communication lines, ponds, data acquisition facilities, fluid removal systems, compression facilities, processing and extraction facilities and collection systems that the Lessee may deem necessary or convenient together with right-of-ways to transport by pipelines or otherwise, oil, gas, water and their constituents from the Leased Premises and other lands within a production unit

formed in accord with paragraph ____ of this lease as reasonably necessary to the conduct of the operations on the Leased Premises or other lands pooled with the Leased Premises to form a production unit during the term of this Lease. All such facilities shall be so placed on the Leased Premises as to interfere as little as possible with the use of the Leased Premises by the Lessor.

- (b) **Removal of Roadways And Pipelines** - Any roadway or pipelining installed on the Leased Premises during the term of this Lease shall be removed promptly upon the termination of this Lease and the Leased Premises shall be restored to its approximate condition prior to the commencement of operations and as proscribed by any federal, state or local statute or ordinance and the regulations enforced by any governmental regulatory authority having jurisdiction over the operations of Lessee on the Leased Premises
- (c) **Injection of Fluids and Gas** - Lessee shall have the right to inject water, brine, air, gas, and other substances into the subsurface strata underlying the Leased Premises as may be reasonable and necessary for the conduct of operations provided hereunder for the production from the Leased Premises of oil, natural gas and the other substances covered by this lease provided that such injection is in accord with all applicable federal, state and local statutes and ordinances, the provisions of any permit issued to conduct operations on the Leased Premises. Lessee shall have no right or privilege of injecting any substance in any well on the Leased Premises or burying any substance on the Leased Premises for the purpose of disposal of such substances or for the production of oil, natural gas and other substances covered by this lease from a well not located on the Leased Premises or lands pooled with the Leased Premises.

What Limitations Imposed on the Use of my Land for Operations

Despite the oil and gas lease granting to the operator a described tract of land for the purpose of exploring, drilling, operating for and producing oil and gas and the other ancillary purposes as set forth in the granting clause or otherwise qualified in the lease, it does not grant the entire surface of the owner's land to the operator. However, the operator, except when otherwise limited by the terms of the lease, is not limited to choosing any specific portion of the land for conducting its operations. The operator is entitled to enter upon and use such portion of the land as may be "reasonably necessary" for the purposes specified in the lease. If the grant of the operator's right to

use of the land is not specifically expressed in the lease, it is implied that the grant is to the extent necessary to conduct its the operations. Because the law by implication confers certain rights to the operators to occupy the land, the landowner must carefully express in the lease the specific rights which will and will not be granted to the operator concerning the use of the land.

Conversely, a landowner may by express words except and reserve to himself all rights not expressly granted in the granting clause to the operator. An example of such a restriction would be operator's right to conduct seismic operations, or assign that right to third parties. Another would be to restrict the operator's right to construct structures and improvements onto a specific location selected by landowner. Another would be to limit operator from conducting operations within a specified distance from landowner's own structures and improvements. Farmers should clearly reserve their right to raise livestock on the leased land and require the operator to construct all necessary fence, gates and cattle bards and fence to restrict access to all drill sites, pits, tanks, and other production facilities. When appropriate the operator should be required to conduct operations to permit the initiation or continuation of irrigation of the land to preserve agricultural activities on the land and accommodate such activities while conducting its operations. It is also important for landowners to be certain the lease clearly reserves to the landowner their rights to use surface and subsurface as reasonably necessary to explore for and extract and market oil, gas, coal or other minerals of any type whatsoever not specifically covered by the lease.

An example of a clause reserving interests to a lessor:

Rights Reserved by Lessor

- (a) Lessor reserves the right to use the Leased Premises in any and all respects not specifically limited by the terms of this Lease, which will not unreasonably interfere with the proper operations of Lessee under this Lease.

- (b) Lessor reserves all minerals within the Leased Premises including all oil, gas and liquid hydrocarbons not leased to Lessee by this lease and shall have the right to conduct operations to mine and remove those minerals and lease those mineral rights to third parties insofar as Lessor is otherwise legally entitled to lease the same, subject to rights expressly granted to Lessee under this lease.
- (c) As between the Lessor and Lessee, the surface rights of Lessor shall be considered dominant and the oil and gas rights of Lessee servient. Any dispute between the parties hereto concerning surface use shall be resolved in favor of the interests of the Lessor.
- (d) Inspection and information. Lessor shall have the right to examine the Leased Premises and Lessee's operations on the premises at any reasonable time. Lessee shall keep full records of drilling operations, production, and sales of products from the Leased Premises, and Lessor shall have the right to inspect and copy such records at all reasonable times. Lessee agrees to make available to Lessor on written request all charts of formations found under the Leased Premises. Lessor shall have the right to examine all cores taken from any wells drilled on the Leased Premises when and if available; however, Lessor shall not interfere with Lessee's removal of any core for the purpose of analysis. Lessee agrees to furnish Lessor on written request the results in writing of any core analysis. On surrender of any land to Lessor, Lessee shall give Lessor a copy of all logs, charts of formations, and core analysis reports respecting such land. On termination of this Lease, lessee shall give Lessor a copy of the logs, histories, and casing records of all wells drilled on the premises.

Protection of the Leased Premises

The landowner should require express provisions in the lease to protect the surface of the land from injury caused by the oil and gas operations. These protections can include a requirement that all operations are conducted in compliance with federal, state and local laws and all regulations and orders issued by regulatory agencies, any failure of compliance can be the basis for terminating the lease. Another specific protection is to require the operator to use reasonable care at all times to prevent injury or damages to trees, crops, grass, cattle, livestock, buildings, water wells or storage tanks on the land and to pay damages for any injury including any contamination of the land or pollution of any water supply. The lease terms can prohibit disposal of waste or drill cuttings on the property or prohibit disposal or release of any substance which is hazardous waste, toxic substance or

solid waste. During operations the operator should be required to stockpile any topsoil removed and to preserve it for the restoration of the land at the conclusion of activities. The landowner should require an appraisal and payment in advance for any standing lumber to be removed during the oil and gas operations on the land. The operator should be restricted to using only one road to each drilling location which is constructed at a location satisfactory to the landowner and confine all travel to that road. The operator must be required to maintain all such roads in good repair with removal of any stone or toppings at landowner's request when the road no longer needed.

The following is a sample clause addressing the protection of the leased premises:

PIPELINES, ACCESS ROADS AND FENCES - The location of any well access road or pipeline shall be mutually agreed upon by Lessor and Lessee. Lessor's consent to such locations shall not be unreasonably withheld taking all relevant factors concerning such location into consideration. Lessee shall lay all pipelines which it constructs on the Leased Premises below 30 inches from the surface. Lessee shall fence all sump holes, pits, other excavations and areas of operation to the extent required to safeguard livestock and to prevent access by any unauthorized person. All access roads and bridges used by the Lessee pursuant to its drilling and producing operations on the Leased Premises shall be maintained by Lessee in good order and repair in a good and professional manner in a passable condition, free of significant ruts and properly sloped with culverts installed as necessary to permit drainage and to prevent soil erosion to the maximum extent possible. Lessee shall utilize shale, gravel, or crushed stone and sluice pipes, where necessary, to maintain the condition of the roads. Upon request of Lessor, Lessee shall erect and maintain a gate on any access road used by Lessee. If the gate is locked, a key shall be furnished to the Lessor. Lessee shall not construct any road on the Leased Premises without the prior approval of Lessor as to the location, route and type of construction to be used. Lessee shall prevent any of its employees or agents from operating vehicles on the premises at a speed greater than five (5) miles per hour.

PROTECTION OF LESSOR'S ESTATE - Lessee agrees to take all reasonable steps to prevent its operations from (a) causing or contributing to soil erosion, or to the injury of terraces, grades, or other soil-conserving structures on the Leased Premises; (b) polluting the surface or subterranean waters of reservoirs, springs, streams, irrigation ditches, stock ponds, or wells on such premises; (c) decreasing the fertility of the soil; (d) damaging crops, native or cultivated grasses, fruit or nut trees, timber, or pastures, consistent with the purpose of the Lease; (e) harming, or in any way injuring, the animals, poultry, fish, or livestock owned by the Lessor or by his tenants and kept or pastured on the Leased Premises, including the erection and maintenance of fences, gates, and cattle guards where necessary for such purposes; or (f) damaging buildings, roads, structures, ensilage pits, improvements, farm

implements, or fences. The Lessee shall pay to the person beneficially interested in the harmed object all damages caused by its operations.”

What is the Habendum Clause

Habendum is a Latin word meaning “to be held.” The habendum clause in the lease limits and conditions the grant contained in the granting clause. The purpose of an habendum clause is to define the estate created by the granting clause.

For example, the clause may state:

"TO HAVE AND TO HOLD [the leased premises] unto and for the use of the [Lessee] for the term of five (5) years...and as much longer as oil and gas is produced in paying quantities yielding to [Lessor] the one-eighth (1-8th) part of all the oil and gas produced...."

There are many variations in this clause. The word “found” has been substituted for the word “produced.” Generally, these variations have not affected the results of the clause because the courts in their decisions interpreting the meaning of the clause have required production to be in paying quantities and held that mere discovery of oil and/or gas without production is insufficient to continue the lease into its secondary term.

The text of habendum clauses containing the words "as much longer as" or "so long as oil and gas is produced in paying quantities" have been interpreted by the Pennsylvania Courts to be words which connote a "special limitation" causing the grant to terminate automatically on the occurrence of the event of the special limitation resulting in the ownership of the oil and gas automatically returning to the grantor (landowner), without the need of the landowner to give notice or to take legal action to gain possession of the property.

Most forms of oil and gas leases now being proposed to landowners contain provisions which attempt to require the landowner to take legal action to enforce the lease, notwithstanding oil or gas not being produced in "paying quantities."

The following are examples of clauses which will extend the term of the lease in the absence of production:

TERM - Subject to the other provisions contained herein, this lease shall be in force for a primary term of two (2) years from the date first written above and for so long thereafter as any of the following occur:

- (a) a well capable of producing oil and gas in paying quantities is located on the Leased Premises or on other lands pooled or unitized or combined with all or a portion of the Leased Premises as provided in Section ____ of this Lease;
- (b) Lessor is receiving Royalty payments, Delay Rental payments, or Shut-In Royalty payments in accord with the provisions of this Lease;
- (c) Operations, as defined in this Lease, are being conducted on the Leased Premises or lands pooled, unitized or combined with the Leased Premises with no cessation of grater than one hundred twenty (120) consecutive days excluding any dates operations were not conducted due to a Force Majeure as defined in this Lease, provided that such operations result in a well capable of producing oil and or gas in paying quantities;
- (d) Oil, gas or other substances covered hereby are produced in paying quantities from the Leased Premises or from lands pooled therewith, or this lease is otherwise maintained pursuant to the provisions hereof.

Provided, however, that if during the last tear of the Primary Term or after the expiration of the Secondary Term , the last producing well located on lands pooled, unitized or combined with all or a portion of the Leased Premises is plugged and abandoned, this Lease shall remain in force for an additional period of one (1) year from the date of the plugging and abandonment of such well, and shall continue thereafter if any of the conditions in items (i) through (iii) if this provision are applicable as the end of each additional one (1) year period.

For the purposes of this Lease, "Operations" includes any of the following which may occur on the Leased Premises or lands pooled, unitized or combined with all or a portion of the Leased Premises.

- (i) using bona fide good faith efforts to diligently prepare the surface of the physical well site area prior to the commencement of actual drilling activities including, but not limited to, the commencement of leasing operations on or adjacent to the well site area such as the removal of trees, the construction of access roads or the delivery of heavy equipment;
- (ii) drilling, testing, completing, reworking, recompleting, deepening, sidetracking, stimulating, fracing, plugging back or repairing a well or equipment;
- (iii) any acts in search for or in an endeavor to obtain, maintain or increase the production of oil and/or gas including, without limitation, injecting substances into a well;
- (iv) the production of oil and/or gas.

What Terminates the Oil and Gas Lease

An operator's rights under an oil and gas lease may be terminated by "abandonment" by "forfeiture" and "by expiration of the term" for which the grant was made. The words of the habendum clause "for so long as oil and gas is produced in paying quantities" generally establishes the limitation on the lease term.

Paying Quantities

Production of oil and/or gas in "paying quantities" with a termination clause for failure to produce such quantities has been interpreted by the Pennsylvania Supreme Court to mean that if oil has been found, but no longer pays the expenses of production, the stipulated condition for termination of the lease has occurred. But if a well pays a profit, even a small one, over the operating expenses, it is producing in paying quantities. The phrase "paying quantities," therefore, is

determined by the operator, and by his judgment, when exercised in good faith. While “good faith” should be an important element to hold a lease, the lax standard set by the court encourages operators to attempt to keep a lease in effect beyond the primary term for speculation or future development. This standard imposes a great burden on the landowner to establish that a well is not producing in paying quantities.

Since the Pennsylvania Courts have interpreted this lease clause in a manner which is most favorable to the operator (an interpretation not consistent with the interpretation of some Courts in other oil and gas producing states) it is important to the landowner that the oil and gas lease state definite objective criteria to define production and/or the scope of operations which will continue the lease during its “secondary” term. Failure to accomplish this objective, may result in the land being subject to the lease with the landowner receiving little or no royalty on the production or rental for the use of the land and be unable to terminate the lease and re-lease the land to an operator who will conduct operations as a prudent operator maximizing the production royalty payable to the landowner.

An example of a clause which establishes objective criteria to determine the nature of the operations required for the operator to maintain the lease in effect is the following:

CONTINUING OPERATIONS - If, at the end of the primary term or any time thereafter, this lease is not being kept in force by any other provision hereof, but Lessee is then engaged in drilling, reworking or any other operation calculated to obtain production on the Leased Premises or lands pooled therewith, this lease shall remain in force as long as such operations are diligently conducted in a prudent manner and, if such operations result in the production of any substance covered hereby, as long thereafter as production continues in paying quantities. Drilling operations under this lease may be conducted by means of a well or wells the surface locations of which are on other lands than the Leased Premises and which are drilled into and bottomed in the Leased Premises (any such well being deemed to be drilled on the Leased Premises), or by means of a well or wells the surface locations or which are on the Leased Premises and which are bottomed in the Leased Premises, or by a

combination of such wells. Drilling operations under lands pooled or unitized in accordance with paragraph 8 of this Lease may also be conducted by means of a well or well, the surface locations of which are on lands other than the Leased Premises and which are drilled into and bottomed in the pooled lands (any such well being deemed to be drilled on the pooled lands), or by means of a well or wells the surface locations of which are on the pooled lands and which are bottomed in the pooled lands, or by a combination of such wells.

- (a) **Drilling Operations.** Following the drilling and completion of the first well on the Leased Premises, Lessee shall drill and complete, if completion is warranted, further wells on the Leased Premises to the extent that such drilling is requisite for the proper development of the Leased Premises and any lands pooled therewith, but shall not be required to drill more wells than are necessary to supply such part of the market demand for gas from the field as may fairly and reasonably be apportioned to the Leased Premises and lands pooled therewith, except for drilling wells as otherwise required to offset a well or wells drilled on adjacent lands not pooled with the Leased Premises or otherwise controlled by Lessor within a distance of 330 feet from a boundary of the Leased Premises or lands pooled therewith, which well shall be referred to as an "outside well." In the event a well is drilled on adjacent lands not pooled with the Leased Premises within a distance of 330 feet from the boundary of the Leased Premises or land pooled therewith, Lessee shall offset such outside well by the commencement of drilling operations at a suitable offset location on the Leased Premises or land pooled therewith within six (6) months after it is ascertained that the production of a substance covered hereby from such outside well is in paying quantities, except that: (a) If a well is being drilled on the Leased Premises said time shall be extended until six (6) months after the completion or abandonment of the well so being drilled or (b) if there already exists or is being drilled on the Leased Premises a well at a suitable offset location, it shall take the place of the required offset well. A suitable offset locations within the meaning hereof shall be one which is within the offset distance from the boundary and not more than twice the offset distance from a line drawn from the outside well to the nearest point in said boundary and extended through the Leased Premises. Offset wells shall be counted in determining when the Leased Premises has been fully drilled. If no surface drill site on the Leased Premises at a suitable offset location is available under the provisions hereof for the use of Lessee, and Lessee does not have a surface drill site on other lands, together with the necessary rights of way, from which it is practicable to directionally drill a well into and bottomed under the area defined

in this paragraph as a suitable offset location, Lessee shall be excused from offsetting such outside well.

- (b) Prudent Operations. Except as herein otherwise provided, Lessee shall drill each well and operate each completed well in accordance with good and prudent oil and gas field management and operational practices so long as such well shall produce oil or gas in paying quantities in conformity with any reasonable conservation or curtailment program affecting the drilling or wells or the production of oil or gas or either thereof from the Leased Premises to which Lessee may voluntarily subscribe or become a part, or which any conservation or curtailment program which may be imposed by law or by any appropriate governmental agency.

One-Eighth Royalty

The one-eighth royalty payable to the landowner for the oil produced has been the entrenched industry standard in Pennsylvania for over one hundred years. Company land agents attempting to secure a lease will assert that that amount for royalty payment is virtually sacrosanct. Actually, in many instances sophisticated landowners have negotiated larger royalty payments. This is possible when the landowner enjoys a good vantage for negotiating better terms. Such vantage can come about if the landowner controls a great amount of acreage or the land is in an area where significant production is likely to be found. More recently, it is not unusual for a operator to be willing to pay a royalty greater than one-eighth even when dealing with the owners of the small tracts.

Flat Rate Rent for Gas Wells

During the early years of the development of the oil and gas industry, natural gas was often regarded as a nuisance byproduct of oil production. The leases entered into in these earlier years often provided for a payment of a rental of a fixed dollar amount to be paid for each well which produced gas when the gas was used and marketed off the land. Leases of this type are no longer

employed by operators, but many of them remain valid subsisting leases burdening the land and precluding a re-leasing of the property to an operator willing to undertake the expense and risk of further development of the oil and gas under the land.

In 1979 the Legislature of Pennsylvania adopted legislation which specifically requires an oil and gas lease operator to operate the oil and gas lease to produce the minimum return of a royalty to the lessee of at least one-eighth ($1/8^{\text{th}}$) of the production or the lease is void. See Act of July 20, 1979, P.L. 183 No. 60, § *et seq.* (58 P.S. §33 *et seq.*).

Section 2 of the Act states that an oil and gas lease which does not provide for a one-eighth ($1/8^{\text{th}}$) royalty shall be subject to escalation of the royalty to a one-eighth ($1/8^{\text{th}}$) of production by new drilling, drilling deeper, redrilling, artificial well stimulation, hydraulic fracturing or any other procedure for increased production. 58 P.S. §34.

In adopting the Oil and Gas Conservation Law, Act of July 25, 1961 P.L., 825 (58 P.S. §401 *et seq.*), the Pennsylvania Legislature stated:

“It is hereby declared as an expression of policy to be in the public interest to foster, encourage, and promote the development, production, and utilization of the natural oil and gas resources in this Commonwealth...” (See historical and Statutory Notes Title 58 Pa .C.S.A. Ch. 7 Oil and Gas Conservation Law (58 P.S. p. 420).

By this legislation the Legislature has established Pennsylvania’s public policy to foster and encourage the development and production of oil and natural gas and to pay a royalty to landowners of not less than one-eighth for production from wells which meet the criteria established by the statute.

Calculation of the Amount of Royalty to be Paid

A lease which calls for the royalty to be one-eighth of the “proceeds” from the sale of production may provide a lesser amount to the landowner than a royalty calculated on one-eighth of

the “market value” of the gas. “Proceeds” is generally defined as gross receipts minus the costs of marketing and transportation. “Market Price” is normally calculated to be equal to the price obtained in comparable sales in the field.

Some leases provide for the deduction of the costs of any charges for transportation, dehydration and compression paid by the operator to deliver oil or gas for sale before the calculation of the royalty payable to the landowner. This method of the calculation of the royalty results in a lower amount being realized by the landowner for the gas produced.

Another way operators may lower the royalty paid to the landowner is if the operator does not sell the oil or gas to others and the lease provides that the royalty be calculated on the “lowest field market” price paid by any public utility in the state at the well head for oil or gas. This method of calculation may not actually relate to the value of the oil and gas produced from the land

The following is an example of a clause which establishes a royalty greater than one-eighth and prohibits deduction from the royalty costs incurred to gather, transport, compress, dehydrate or otherwise treat gas prior to it being transported to a pipeline for transmission or to the purchaser:

(4) ROYALTY PAYMENT - (a) For crude oil, including condensate, Lessee shall pay to the Lessor, as royalty, free of production cost, 15.625% of the proceeds realized by Lessee from the sale of all crude oil produced and sold from the Leased Premises. (b) For gas (including casing-head gas) and all other substances covered hereby, the royalty shall be 15.625% of the proceeds realized by Lessee from the sale thereof, with no deduction of any costs incurred by Lessee or its affiliates to gather, transport, compress, dehydrate or otherwise treat such gas prior to the point of custody transfer into pipelines or other facilities owned by a regulated utility, pipeline company or a non-affiliated third party from the sale of all natural gas and other gaseous substances produced and sold by Lessee from the Leased Premises. Lessor shall tender payment of royalties to Lessee on or before the 25th day of each calendar month for all royalties which accrued during the preceding month for which Lessee receives payment from production of any well(s) on the Leased Premises or lands contained in a drilling unit of which the Leased Premises is a part. Lessee shall furnish monthly statements to Lessor showing computation of all royalties due.

Landowner's Free Gas

In Western Pennsylvania it has been nearly universal for the oil and gas lease to contain a "free gas" clause. The clause usually is stated to allow for a fixed quantity of gas to be used by the landowner for a well located on the land (150,000 to 300,000 cf) and restricted to domestic use and for the landowner to pay for "over burn" (the excess used over the maximum allowance) at a market rate for the additional gas consumed. Generally, the landowner is to pay the costs of the connections to the well to secure the gas and take this gas at his risk. Because provision of "free gas" has been such a common practice, a landowner should negotiate a payment by the operator in the event the land does not take any free gas.

The following is an example of a "free gas" clause providing for payment to lessor if gas is not used.

FREE GAS – If there is sufficient gas produced from a well drilled on the Leased Premises over and above the amount required for operations by the Lessee hereunder, the Lessor owning the parcel of property upon which said well is located may use gas for domestic purposes in the principal residential dwelling, free of charge, in appliances furnished by said Lessor upon the Leased Premises subject to this lease, not to exceed 300,000 cubic feet of gas per annum. The necessary facilities, including meter, regulator, lines and connections shall be furnished and installed at the expense of the Lessor at the place of or near to the well and of the kind designated by Lessee. The use of gas thereunder shall be wholly at the risk of Lessor and without any liability to the Lessee for any accident or damage caused thereby, nor shall Lessee be liable for any shortage or failure in the supply of gas for said domestic use. Any gas used by the Lessor in excess of said annual amount shall be paid for at the prevailing price paid to Lessee for gas sold at the well head. Additionally, Upon a commercially productive well being drilled on the herein Leased Premises, Lessee agrees that Lessor may, in lieu of free gas above, be paid the sum of (to be negotiated) per year for one well only on an annual basis. This payment shall be paid annually at the end of each calendar year. Lessor must notify Lessee by certified mail of Lessor's intent to be paid hereunder.

Gas Storage Clause

Although not a necessary part of the basic oil and gas lease, many operators seek to include a gas storage clause in the lease. A depleted oil and gas reservoir may be used for the storage of gas produced

from other lands. This is done through reinjection of the gas down a well under high pressure. For many reasons the landowner should negotiate a separate agreement for the storage of the gas within the land. Payments for storage rights are either expressed in terms of number of dollars per acre or in terms of cents per unit of gas injected and/or withdrawn. Because a storage clause in an oil and gas lease may serve to perpetuate the term of the lease indefinitely, thereby tying up the potential development of other deeper or shallower oil and gas strata within the land, it is normally best to have the gas storage agreement apply only to the specifically identified storage horizons, so that oil and gas production from other horizons may be developed under another lease of the land.

Pooling and Unitization

Most modern oil and gas leases include a pooling and unitization clause. The purpose of a pooling clause is to allow the lessee to operate neighboring lands as a unit. This is a logical method of operation because oil and gas does not obey property lines. It allows for each landowner to share in the production of oil or gas from wells within the pooled unit, regardless of the surface location of the well. However, landowners should be cautious about granting unrestricted rights to create pooling units, since the inclusion of only a fraction of their land in a pooling unit may continue the lease on all of the land indefinitely, with only a very small royalty being paid to the landowner, while the remainder of his tract is not being adequately developed. Many pooling clauses establish a maximum size for any unit, and most require that the lands actually be connected to the landowner's land. These two factors are important to landowners because of the economic interest of operators in gerrymandering unit lines to keep in force as many leases as possible. It may also be advisable from the landowner's perspective to have the pooling clause describe the area which is effectively being drained by the unit well or to require the pre-approval of the landowner to the unit description. A "Pugh" clause essentially

provides that the inclusion of acreage from the land in a pooling unit will extend the lease only as to the included acreage, thus creating a severance of the lease.

An example of a clause concerning pooling which protects the lessor's interest by restricting the percentage of the leased premises to the total unit acreage is as follows:

If the leased premises is pooled with other lands to form a drilling unit and a well is drilled on the leased premises, the portion of the unit the leased premises shall constitute not be less than twenty five (25%) percent of the total acres of the unit.

The following is another example of a clause protecting lessor's interest in the size of the pool:

- (a) Pooled units created hereunder shall not exceed the size limitations set forth in this lease for production units.
- (b) Lessee shall have the right to pool the leased premises with other lands for the production of oil or gas unless either (i) at least forty (40) acres of the leased property or (ii) if the leased property, or the portion of the leased property not previously pooled or unitized is less than forty (40) acres, all of the leased acreage is included within the pooled unit thereby created.
- (c) If there are royalty interests in oil and gas in the leased premises now owned by parties other than Lessor, Lessor makes no warranty or representation that this lease grants Lessee the power or authority to pool such royalty interests, but in the event of pooling hereunder Lessor's royalty on production from the pooled unit shall be calculated and paid as if Lessee had the power, and had exercised the power, to pool such royalty interests, whether or not Lessee in fact has such authority.
- (d) In the event a portion or portions of the land herein leased is pooled or unitized with other land so as to form a pooled unit or units, operations on, completion of a well upon, or production from such pooled unit will not maintain this lease in force as to the land not included in such pooled unit or units. This lease may be maintained in force as to any land covered hereby and not included in such pooled unit or units in any manner provided for herein; provided that if it be by rental payments, rentals shall be reduced in proportion to the number of acres covered hereby and included in such pooled unit or units.

Mandatory Unitization

The "Oil and Gas Conservation Law" (58 P.S. §401 *et seq.*) governs spacing of wells which penetrate the Onondaga limestone formation or a depth of 3,800 feet or deeper. The Act declares the

public policy of Pennsylvania to foster, encourage and promote the development, production and utilization of the oil and gas resources in the Commonwealth especially in the formations below the Onondaga horizon without waste of oil or gas and to protect the correlative rights, the rights of the royalty owners and producers so that the people of the Commonwealth shall realize and enjoy the maximum benefit of these natural resources.

For wells to be drilled to penetrate the Onondaga or deeper horizons, no permit shall be issued unless the well is 330 feet from the nearest outside boundary line of the lease upon which it is located (Sec. 406), unless the lease is included in a voluntary unit in which case the well may be located without regard to lease lines if it is not within 330 feet of the nearest unit line.

The Act creates and empowers the Oil and Gas Conservation Commission whose duty is to carry out the purpose of the Act. Upon application and hearing, the Commission may enter well spacing orders and drilling units of a specified size and shape. Section 407 of the Act addresses the criteria for such orders.

On the application of an operator having an interest in a spacing unit, the Commission may make an order integrating all separately owned tracts or interests in the spacing unit for its development and operation and for the sharing of production from the unit. The Commission may, in that order or by a separate order, prescribe the terms and conditions for the integration of the royalty interests upon terms that are just and reasonable after a public hearing.

Oil and Gas Operations in Workable Coal Seam

The "Coal and Gas Resource Coordination Act" (58 P.S. §501 *et seq.*) applies to all gas wells which penetrate a workable coal seam, except for wells drilled pursuant to a permit issued pursuant to the Oil and Gas Conservation Law and drilled to a depth which penetrates the Onondaga horizon

and oil injection, or storage wells. The Act establishes a maximum spacing distance of 1,000 feet of a well from any other well.

The spacing limitation does not apply to a well which does not penetrate a workable coal seam, a plugged oil, gas or injection well, a nonproducing oil or gas well drilled and abandoned prior to November 30, 1955 or a storage well. A permit may be issued if the applicant and owner of the workable coal seam consent in writing to a lesser distance but not to exceed 900 feet. If the vertical distance between the producing formation of the proposed well and the producing formation of any other well is 1,000 feet or greater and the applicant and the owner of the workable coal consent in writing, a permit may be issued where the spacing distance between wells is less than 1,000 feet.

Future Development or Sale of the Land

Large portions of the land in Western Pennsylvania is now considered to be prime land for development of the surface. The development of the surface of land for commercial, industrial and residential use is often in conflict with the development and enjoyment of the minerals (including oil and gas) under the surface. Generally, the common law regards the mineral estate to be the “dominant” estate and the surface estate to be the “subservient” estate. [Note: Please see p. 8 reservation by the lessor which addressed the dominant servient relationship.]

Because it is the rule that the operator of the oil and gas is entitled to enter upon the surface and use such portions of it as may be reasonably necessary to carry out the purpose of the lease, the operator is regarded as owning the “dominant” estate and the landowner owning the “subservient” estate in the land subject to the lease.

When the land is located in an area which has or will be experiencing rapid changes and growth and the landowner is unable to accurately project which areas of the surface may be valuable

for development in the foreseeable future, the landowner should consider including in the lease a clause such as the one set forth below which establishes a procedure for the landowner to require the operator to use the surface for the development of the oil and gas and in the event of the operator's failure to promptly use the surface for oil and gas development, then the unused portion of the surface valuable for surface development must be released from the lease.

Development Or Sale Of Premises - The township in which the Leased Premises are located is now undergoing and will continue to undergo rapid changes and growth, and for that reason Lessor cannot now ascertain with complete accuracy the most valuable use to which certain portions of the Leased Premises might ultimately be put. In order not to hamper or restrict the use of the premises for their most valuable use, it is agreed that if during the term of this lease Lessor has a bona fide plan of development or use or sale of any portion or portions of the premises, and if in the opinion of Lessor the existence of an oil and gas lease of the surface of such portion or portions will unreasonably hamper such development, use, or sale, Lessor may notify lessee in writing of the existence of such plan and request that lessee surrender to Lessor all Lessee's rights in the surface of such portion of the premises and in the subsurface to a depth of 500 feet. If Lessee fails to commence drilling operations on such portion of the premises within 120 days after receipt of such notice, this Lease shall automatically terminate as to such surface and subsurface portion of the Leased Premises. Lessee shall promptly deliver to Lessor a good and sufficient quitclaim deed for the same; however, if any title work or other expense, such as a survey, is necessary, such work or expense shall be paid for by Lessor. Lessee shall also surrender to Lessor its subsurface rights below 500 feet beneath the surface if Lessee does not have surface rights on adjacent land from which Lessee can whipstock or slant drill into such subsurface.

Why a landowner Should Not Give a Warranty of Title

Virtually every form of oil and gas lease employed by an operator contains a clause whereby the lessor is providing a general warranty to the lessee, its successors and assigns, that the lessor has good title to the oil and gas and may lawfully enter into the lease and agrees to defend the title to the leasehold, and the oil and gas against the lawful claims and demands of all persons whomsoever and

that lessee shall have the exclusive, free and quiet possession of the premises for the purposes of the lease during its term.

A clause containing this language is a "general warranty." It is an undertaking by the lessor to defend the lessee's title against all mankind, including any claim of liens and taxes. In Pennsylvania it is a guarantee of the title back to when the lands of the Commonwealth were owned by William Penn.

As a practical matter, the lessor most likely has no information available to him to support making this warranty. By making this warranty, the lessor is enabling the lessee to look to the lessor to pay damages for many possible but unknown defects in the title to the oil and gas, the surface and the right to conduct operations and freely market the gas. This is an unwarranted assumption of liability by the lessor.

A sample of a clause where the lessor disclaims making a general warranty as to title to the oil and gas and his right to enter into the lease is as follows:

Lessor makes no warranty or covenant, express or implied, as to the title of the Leased Premises, and Lessor does not covenant that Lessee shall have the quiet enjoyment and possession of such land, or any part, during the term of this Lease, it being understood that the only interest covered by this Lease is whatever right, title or interest is owned in the Leased Premises by Lessor. Lessee shall notify Lessor promptly of any judicial proceeding brought to the attention of Lessee affecting its possession under the Lease or the right, title or interest of Lessor in the Leased Premises.

THIS LEASE SUBJECT TO – This lease is subject to any prior severance or letting of any estate in the oil and gas, coal and other minerals underlying the leased premises of record in the chain of title or of which lessee has actual knowledge.

Duties of Operator to Protect Lessor's Interests

Historically oil and gas leases were prepared by the operator and reflected the operator's interests. As the objective of lessors and lessees became more clear it became the object of each to maximize their potential for economic gain from the transaction. The courts began to "write" into the leases a promise by the operator to undertake certain duties in connection with operations even if these promises were not expressly set out in the lease. These promises have become to be referenced to as "implied covenants" since they were not expressly set out in the lease as covenants by the lessee to the lessor.

The focus of the implied covenants identified by the courts are:

- The (implied) covenant to protect against drainage by drilling offset well;
- The (implied) covenant to further develop the leasehold premises;
- The (implied) covenant to market the oil and gas once found and capable of being produced;
- The (implied) covenant to conduct operations in a manner consistent with the standards of a prudent operator.

Even if these duties are not expressly set forth in the lease, the courts will enforce them as if they were expressly set forth.

The implied covenants impose the duty upon the operator to act as a reasonably prudent operator. This means the operator must act in good faith, to act competently and to take into consideration the legitimate interests of the lessor.

The implied covenants were found to exist because of the absence of an "express covenant" addressing the subject matter. The courts will not find an "implied covenant" to exist if the subject matter has been addressed within the lease. To obviate the possibility of the courts finding an "implied covenant" in the lease, the forms of leases employed by operators have been carefully

drafted to preclude the courts finding existence of these duties. Therefore, it is essential for the lessor to ensure that the lease expressly addresses the duties of the operator which the courts have found to be the object of the "implied covenant." A prudent lessor cannot rely upon the courts to write into the lease that which his lawyer, should do for himself. The Supreme Court of Pennsylvania has held that the implied covenant to develop is recognized to exist in Pennsylvania's common law, but there has yet to be a thorough application of this concept by the Courts of Common Pleas in the various Pennsylvania counties.

Examples of lease clauses which the lessor may consider which will expressly address the obligations of the operator to him and removing any risk of the duty being imposed only by implication are the following:

For the purposes of this Lease, "Operations" includes any of the following which may occur on the Leased Premises or lands pooled, unitized or combined with all or a portion of the Leased Premises.

- (v) using bona fide good faith efforts to diligently prepare the surface of the physical well site area prior to the commencement of actual drilling activities including, but not limited to, the commencement of leasing operations on or adjacent to the well site area such as the removal of trees, the construction of access roads or the delivery of heavy equipment;
- (vi) the actual drilling, testing, completing, reworking, recompleting, deepening, sidetracking, stimulating, fracing, plugging back or repairing a well or equipment to obtain production of oil and/or gas, conducted in good faith and with due diligence;
- (vii) any acts in search for or in an endeavor to obtain, maintain or increase the production of oil and/or gas including, without limitation, injecting substances into a well;
- (viii) drilling operations will not be considered as being conducted in good faith and with due diligence unless a rig capable of drilling to the prospective depth of the well to be or being drilled is actually in place and rotating under power;

- (ix) the production of oil and/or gas in paying quantities;
- (x) the recovery of an injected substance; or
- (xi) any act or acts similar or incidental to any of the foregoing.

For purposes of this Lease, such operations shall be considered as being conducted in good faith if not more than (to be negotiated) are permitted to lapse between the completion or abandonment of one well or operations on the well and the commencement of drilling or operating on another well or hole on the Leased Premises or lands unitized therewith;

Drilling Operations. Following the drilling and completion of the first well on the Leased Premises, Lessee shall drill and complete, if completion is warranted, further wells on the Leased Premises to the extent that such drilling is requisite for the proper development of the Leased Premises and any lands pooled therewith, but shall not be required to drill more wells than are necessary to supply such part of the market demand for gas from the field as may fairly and reasonably be apportioned to the Leased Premises and lands pooled therewith, except for drilling wells as otherwise required to offset a well or wells drilled on adjacent lands not pooled with the Leased Premises or otherwise controlled by Lessor within a distance of (to be negotiated) from a boundary of the Leased Premises or lands pooled therewith, which well shall be referred to as an "outside well." In the event a well is drilled on adjacent lands not pooled with the Leased Premises within a distance of (to be negotiated) from the boundary of the Leased Premises or land pooled therewith, Lessee shall offset such outside well by the commencement of drilling operations at a suitable offset location on the Leased Premises or land pooled therewith within (to be negotiated) after it is ascertained that the production of a substance covered hereby from such outside well is in paying quantities, except that: (a) If a well is being drilled on the Leased Premises said time shall be extended until (to be negotiated) after the completion or abandonment of the well so being drilled or (b) if there already exists or is being drilled on the Leased Premises a well at a suitable offset location, it shall take the place of the required offset well. A suitable offset location within the meaning hereof shall be (to be negotiated) . Offset wells shall be counted in determining when the Leased Premises has been fully drilled. If no surface drill site on the Leased Premises at a suitable offset location is available under the provisions hereof for the use of Lessee, and Lessee does not have a surface drill site on other lands, together with the necessary rights of way, from which it is practicable to directionally drill a well into and bottomed under the area defined in this paragraph as a suitable offset location, Lessee shall be excused from offsetting such outside well;

Prudent Operations. Except as herein otherwise provided, Lessee shall drill each well and operate each completed well in accordance with good and prudent oil and gas field

management and operational practices so long as such well shall produce oil or gas in paying quantities in conformity with any reasonable conservation or curtailment program affecting the drilling or wells or the production of oil or gas or either thereof from the Leased Premises to which Lessee may voluntarily subscribe or become a part, or which any conservation or curtailment program which may be imposed by law or by any appropriate governmental agency.

Note: The court of common Pleas of Greene County, Pennsylvania has opined that Pennsylvania law does not recognize the concept of a prudent operator.

In case of default by Lessee with respect to any condition or covenant hereof and continuance of such default for 30 days after written notice from Lessor to Lessee to perform such condition or covenant, than at the option of Lessor, this lease shall forthwith cease and terminate except that if any oil well has theretofore been drilled or is then being drilled and Lessee is not in default in connection therewith, this lease shall nevertheless continue in effect as to an area on which the well is located at the appropriate center thereof to be selected by Lessee not exceeding twenty (20) acres for each such oil well, and if any gas well has theretofore been drilled or is being drilled and Lessee is not in default in connection therewith, this lease shall remain in effect for the production of gas and for development of gas (but not gas associated with oil) as to an area within which the said well is located including any land pooled herewith to be selected by Lessee not exceeding forty (40) acres for each such gas well. Lessee shall not, however, be deemed to be in default while work is in progress in good faith which when completed will constitute compliance with such condition or covenant. A termination of this lease as to a part only of the Leased Premises or as to a part only of Lessee's rights shall not affect such rights of way and easements as may be necessary in Lessee's operations on the part of the Leased Premises as to which no such termination shall have occurred.

Note: If Lessor reasonably believes the operator is not operating the leased premises as a "prudent operator, lessor must give notice of a breach of the lease to the operator and demand that the conditions causing the breach be cured within a specified period of time.

To protect against drainage, the following clause is designed to address the lessor's interest.

It's provisions require a well to be drilled to protect the leased premises even if it is not at the time being drained but is susceptible to being drained.

OFF SET WELLS - Should oil or gas be found and be produced or be capable of being produced in paying quantities on any land adjoining the Leased Premises, Lessee agrees to drill all offset wells on the Leased Premises whether or not the Leased Premises are being drained, such offset well or wells to be started within sixty (60) days after the date of completion of the well or wells on the adjoining Leased Premises. Such well shall be considered an offset regardless of footage distance from

the lease line if such well is located in a drill site approved by the Department of Environmental Protection, which drill site adjoins or corners on this Lease. Failure to drill such offset well shall result in the termination of this Lease.

Who is Responsible for Damages to the Land During Operations

The landowner should be certain that the operator is bound to pay for all damages to the land which arise out of or as a result of operations. An example of clauses that accomplish this objective is as follows:

DAMAGES AND RESTORATION - Lessee shall pay the amount of all damages to livestock, crops, fruit or nut trees, timber, fences, ditches, buildings, roads or other improvements caused by Lessee's operation on or about the Leased Premises, which damage shall include the fees and expenses associated with any estimate or appraisal required to establish the scope and amount of damages and all related attorney's fees. All areas of the Leased Premises disturbed or damaged by Lessee's operations shall be restored as near as possible to its original condition as existed prior to the conduction of operations. In the event any activity carried on by Lessee, pursuant to the lease, disturbs, injures or damages the fresh water source or well on the Leased Premises, Lessee shall, at its sole cost and expense, use its best efforts to repair or correct any such disturbance, injury or damage and, if repairs do not restore the fresh water source to a condition sufficient to be comparable to its condition prior to operations both as to quantity and as to quality, Lessee shall replace such source with a substitute source suitable in quantity and quality to meet the use to which the source was being employed at the time of the damage, but in no event shall such replacement source be of lesser quality and quantity as required by the Pennsylvania DEP from time to time.

INDEMNIFICATION - Lessee shall indemnify and hold Lessor harmless from and against any and all direct and indirect liability, loss, cost, injury, damages, and expenses (including Attorney's fees) to any person or property arising from or in connection with the performance of its operations and any damages or injury by or arising from any act of negligence, omission, or default of the Lessee in connection with its operations on the Leased Premises. In case of any action or proceeding brought against Lessor by reason of any such claim, Lessee, on notice from Lessor, agrees to defend the action or proceedings at its sole costs.

LIABILITY FOR ENVIRONMENTAL DAMAGE - Lessee shall alone be liable and responsible for any pollution or other damage to any portion of the environment in or proximate to the Leased Premises which occurs as a result or consequence of Lessee's occupation and use of the Leased Premises, irrespective of whether or not such pollution or damage be due to negligence or to the inherent nature of Lessee's

operations, unless an independent intervening cause be found to be the proximate cause of the pollution or damage. In any action for civil damages brought under this section, there shall be a presumption that, but for Lessee's occupation and use of the Leased Premises, the pollution or other damage would not have occurred, it shall then be incumbent upon Lessee to come forward with evidence to rebut this presumption.

LIABILITY INSURANCE

- (a) Lessee, at its own expense, shall provide and maintain in force during the term of this lease liability insurance in the amount of not less than \$2,000,000.00, covering Lessor as well as Lessee as insured parties, with one or more insurance companies licensed to do business in Pennsylvania.
- (b) **Remedy for Failure to Provide Insurance.** Lessee shall furnish Lessor with certificates of all insurance required by this paragraph. If Lessee does not provide such certificates within 30 days of the execution of this lease, or if Lessee allows any insurance required under this paragraph to lapse, Lessor may, at its option, take out and pay the premiums on the necessary insurance to comply with Lessee's obligations under the provisions of this paragraph. Lessor is entitled to immediate reimbursement from Lessee for all amounts spent by it to procure and maintain such insurance, with interest at the rate of 18% per annum from the date of payment by Lessor until reimbursement by Lessee.

Lessee may declare the Lessor to be in default of a material provision of the lease and that all operations by Lessee on the Leased Premises terminate immediately for such period such insurance is not in effect. In the event of the failure of Lessee to obtain the insurance required by this paragraph or such insurance coverage would lapse or terminate and Lessee does not terminate all operations, Lessee agrees that Lessor may obtain an order from a court of appropriate jurisdiction, without the posting of bond, enjoining all further operations by Lessee, its servants, assigns, contractors, subordinates and employees on the Leased Premises until such time as the required insurance is placed into effect. All policies of insurance shall be endorsed to provide that the policy shall not lapse or terminate without Lessor having been given written notice of such lapse or termination 30 days in advance of the date of such lapse or termination.

Conclusion

Entering into a lease of land for the purposes of developing the oil and gas requires careful thought concerning all of the legal consequences and the interests to be secured for the landowner and the operator. Our office can assist the landowner in addressing these issues and concerns.

Please contact us.

Appendix

DEP Regulations Protecting Landowner for Oil and Gas Development

Protection of Water Supply, 25 Pa. Code §7851.

- Public or private water supply polluted or reduced by a well operator must be restored or replaced with an alternative source of water adequate in quantity and quality for the purposes serviced by the supply
- DEP will investigate claims and make a determination within 45 days of a request
- DEP will issue an order if it finds that pollution or diminution was caused by the oil and gas operations
- Tank truck or bottled water are only acceptable as a temporary supply for water replacement.

Pre-drilling Survey, 25 Pa. Code §78.52

- Well operator to preserve the defense provided under Sec. 208(d)(1) of 58 P.S. §601.208(d)(1) that the pollution or diminution of water supply existed prior to commencement of oil and gas operations must conduct a pre-drilling survey
- Property owner may document quality of water supply by conducting pre-drilling survey by an independent laboratory certified by DEP.

Erosion and Sedimentation Control, 25 Pa. Code §78.53

- During and after all earth moving or soil disturbing activities, the operator must construct, install and maintain erosion and sedimentation control measures.

General Requirements, 25 Pa. Code §78.54

- Operator must control and dispose of all fluids, residual waste, drill cuttings, top hole water, brines, drilling fluids, drilling muds, stimulation fluids, well servicing fluids, oil production fluids to prevent pollution of the waters of the Commonwealth pursuant to a Control and Disposal Plan pursuant to §101.3 of the Clean Streams Law (35 P.S. §691.1 - 691.1001) and the Solid Waste Management Act (35 P.S. §6018.101 - 6018.1003).

Pits and Tanks for Temporary Containment, 25 Pa. Code §78.56

- Operator must contain pollution substances and waste in pits or tanks sufficient to contain all substances with two feet of freeboard at all times, structurally sound, protected from unauthorized acts of third parties, with a synthetic flexible liner. The bottom of the pit must be 20 inches above the seasonal high ground water table.

Disposal of Drill Cuttings, 25 Pa. §Code 78.61

- Detailed requirements are prescribed.

Oil Tanks, 25 Pa. Code §78.64

- Operator shall construct dikes or other methods of secondary containment of sufficient volume to contain the volume of the largest tank plus a reasonable allowance for precipitation.

Site Restoration, 25 Pa. Code §78.65

- Drill holes used to facilitate drilling must be filled.
- Describe the method used for disposal or reuse of free liquid fraction of the waste, name of hauler and disposal facility.
- Location of pit and material used for pit subbase, type of pit liner and nature of waste, pit closure procedure and pit dimensions.
- Location of area used for land application waste and chemical analysis of the waste soil mixtures if requested by DEP.
- Type of waste produced, name and address of hauler and waste disposal facility.

Definition of Terms

The words and terms defined in the Coal and Gas Resource Coordination Act, the Oil and Gas Conservation Law, the Solid Waste Management Act and the Clean Streams Law as set forth at 25 Pa. Code §78.1 are as follows:

Act—The Oil and Gas Act (58 P. S. §§ 601.101—601.605).

Attainable bottom—The depth, approved by the Department, which can be achieved after a reasonable effort is expended to clean out to the total depth.

Casing seat—The depth to which the surface casing or coal protection casing is run. In wells without surface casing, the casing seat shall be equal to the depth of casing which is normal for wells in the area.

Cement—A mixture of materials for bonding or sealing that attains a 7-day maximum permeability of 0.01 millidarcies and a 24-hour compressive strength of at least 500 psi in accordance with applicable API standards and specifications.

Certified laboratory—A laboratory certified by the Department under Subchapter F (relating to certified laboratories).

Coal area—An area that is underlain by a workable coal seam.

Coal protective casing—A string of pipe which is installed in the well for the purpose of coal segregation and protection. In some instances the coal protective casing and the surface casing may be the same.

Deepest fresh groundwater—The deepest fresh groundwater bearing formation penetrated by the wellbore as determined from drillers logs from the well or from other wells in the area surrounding the well or from historical records of the normal surface casing seat depths in the area surrounding the well, whichever is deeper.

Drill cuttings—Rock cuttings and related mineral residues generated during the drilling of an oil or gas well.

Fresh groundwater—Water in that portion of the generally recognized hydrologic cycle which occupies the pore spaces and fractures of saturated subsurface materials.

Gas storage field—A gas storage reservoir and all of the gas storage wells connected to the gas storage reservoir.

Gas storage reservoir—The portion of a subsurface geologic formation or rock strata used for or being tested for storage of natural gas that:

- (i) Has sufficient porosity and permeability to allow gas to be injected or withdrawn, or both.
- (ii) Is bounded by strata of insufficient porosity or permeability, or both, to allow gas movement out of the reservoir.
- (iii) Contains or will contain injected gas geologically or by pressure control.

Gas storage well—A well located and used in a gas storage reservoir for injection or withdrawal purposes, or an observation well.

Gel—A slurry of clay or other equivalent material and water at a ratio of not more than 7 barrels of water to each 100 pounds of clay or other equivalent matter.

Noncementing material—A mixture of very fine to coarse grained nonbonding materials, including unwashed crushed rock, drill cuttings, earthen mud or other equivalent material approved by the Department.

Noncoal area—An area that is not underlain by a workable coal seam.

Nonporous material—Nontoxic earthen mud, drill cuttings, fire clay, gel, cement or equivalent materials approved by the Department that will equally retard the movement of fluids.

Observation well—A well used to monitor the operational integrity and conditions in a gas storage reservoir, the reservoir protective area or strata above or below the gas storage horizon.

Owner—A person who owns, manages, leases, controls or possesses a well or coal property. For purposes of sections 203(a)(4) and (5) and 601.210 of the act (58 P. S. §§ 601.203(a)(4) and (5) and 601.210), the term does not include those owners or possessors of surface real property on which the

abandoned well is located who did not participate or incur costs in the drilling or extraction operation of the abandoned well and had no right of control over the drilling or extraction operation of the abandoned well. The term does not apply to orphan wells except where the Department determines a prior owner or operator benefited from the well as provided in section 210(a) of the act.

Perimeter area—An area that begins at the outside coal boundaries of an operating coal mine and extends within 1000 feet beyond those boundaries or an area within 1000 feet beyond the mine permit boundaries of a coal mine already projected and permitted but not yet being operated.

Permanently cemented—Surface casing or coal protective casing that is cemented until cement is circulated to the surface or is cemented with a calculated volume of cement necessary to fill the theoretical annular space plus 20% excess.

Private water supply—A water supply that is not a public water supply.

Production casing—A string of pipe other than surface casing and coal protective casing which is run for the purpose of confining or conducting hydrocarbons and associated fluids from one or more producing horizons to the surface.

Public water supply—A water system that is subject to the Pennsylvania Safe Drinking Water Act (35 P. S. §§ 721.1—721.17).

Retrievable—When used in conjunction with surface casing, coal protective casing or production casing, the casing that can be removed after exerting a prudent effort to pull the casing while applying a pulling force at least equal to the casing weight plus 5000 pounds or 120% of the casing weight, whichever is greater.

Seasonal high groundwater table—The saturated condition in the soil profile during certain periods of the year. The condition can be caused by a slowly permeable layer within the soil profile and is commonly indicated by the presence of soil mottling.

Sheen—An iridescent appearance on the surface of the water.

Soil mottling—Irregular marked spots in the soil profile that vary in color, size and number.

Surface casing—A string of pipe which extends from the surface and that segregates and protects fresh groundwater and stabilizes the hole.

Tophole water—Water that is brought to the surface while drilling through the strata containing fresh groundwater and water that is fresh groundwater or water that is from a body of surface water. Tophole water may contain drill cuttings typical of the formation being penetrated but may not be polluted or contaminated by additives, brine, oil or man induced conditions.

Total depth—The depth to which the well was originally drilled, subsequently drilled or the depth to which it was plugged back in a manner approved by the Department.

Tour—A work shift in drilling of a well.

Water protection depth—The depth to a point 50 feet below the surface casing seat.

Water purveyor—The owner or operator of a public water supply.

Water supply—A supply of water for human consumption or use, or for agricultural, commercial, industrial or other legitimate beneficial uses.

Well operator or operator—The person designated as the well operator or operator on the permit application or well registration. If a permit or registration was not issued, the term means a person who locates, drills, operates, alters or plugs a well or reconditions a well with the purpose of production therefrom. In cases where a well is used in connection with the underground storage of gas, the term also means a storage operator.

Well site—The area occupied by the equipment or facilities necessary for or incidental to the drilling, production or plugging of a well.

Workable coal seam—One of the following:

- (i) A coal seam in fact being mined in the area in question under the act and this chapter by underground methods.
- (ii) A coal seam which, in the judgment of the Department, reasonably can be expected to be mined by underground methods.