APPENDIX 4 - MINERAL OWNERSHIP AND LEASING SUMMARY

This short summary of oil and gas leasing practices and nomenclature was developed in response to public requests for information received during the scoping process for the GEIS. While it is generally understood that the act of leasing, taken by itself, causes no environmental impacts, it does create the potential for impacts where none existed before. Inasmuch as a lease is a legally binding instrument with responsibilities and obligations for all involved parties, no one should casually enter into such an agreement without a reasonable understanding of its potential consequences. Accordingly, the following information on acquisition of mineral rights has been provided to give concerned parties a broad overview of oil and gas leases. Attention is focused on the fundamental clauses common to virtually all such agreements.

A. MINERAL OWNERSHIP

Any person who intends to drill an oil, gas or solution mining well must first have the legal right to extract the subsurface minerals. The potential developer may obtain the right to extract minerals via one of the following:

1. Purchase of Fee Simple Estate - Fee simple ownership (also called fee or fee simple absolute) holds full right, title and interest to the surface and to all the minerals underneath the parcel in question, in addition to the air space above it.

   A fee simple interest may be acquired by patent from a governmental authority, by warranty deed, by court order, or by devise or descent. The owner has the right to use and to occupy; the right of quiet enjoyment; and the right to sell, mortgage, devise, lease, develop, improve and subdivide. The fee simple owner may sever his land vertically or horizontally. One who sells only certain mineral strata, or to a limited depth, retains the right of access to the
lower strata and to other minerals not divested. With the act of
severance, the surface and the minerals each become a distinct
freehold estate subject to the laws of descent, devise and conveyance.

In most states, New York State included, it is a fact that
purchasers are not bound by prior but unrecorded severances of surface
or minerals unless the purchaser has actual knowledge of such a sale.
Knowledge of prior sale constitutes notice, even if the instrument has
not been recorded.

The purchase of a fee simple estate for the purpose of oil and
gas development is rare.

2. Purchase of a Mineral Deed - A mineral deed is a conveyance of
interest in real property to transfer title of minerals in place. The
mineral deed may sever the mineral interest from the surface, creating
a separate freehold estate. The deed may transfer all or a fractional
portion of the grantor's undivided interest. The mineral deed may be
forever unto the grantee, his heirs and assigns, or it may be
terminable. Commonly, term mineral deeds are for 15 or 20 years and
"as long thereafter" as oil or gas is "found". The word "found" has
been construed to mean "produced". If the term mineral deed has no
"thereafter" clause, an oil and gas interest taken from the term
mineral owner should be ratified by the reversionary owner in the
event that production extends beyond the mineral term. Temporary
cessation of production that does not terminate the interest under
which production is obtained may not terminate the mineral grant that
is into its secondary or "thereafter" term. After cessation of
production, future production cannot revive prior rights.

The use of mineral deeds to obtain oil and gas rights sees
little contemporary use.

3. Oil and Gas Lease - Currently, the most common way to obtain mineral rights is by way of a mineral lease. The basic difference between a mineral deed and an oil and gas lease is that the deed is evidence of a sale, a grant of a separate estate. Certain states' statutes consider the oil and gas lease to be a "sale" of real property; but under a lease, the lessee may take action to keep the lease in force. Production is immaterial to the effectiveness of a mineral deed. A lease has an implied convenant to develop; a deed does not. The conveyance of mineral interest includes the right to enter upon the premises for ingress and egress, to explore and produce, even without an express convenant to that effect. A lease "demises and leases" for a specified period of time and allows the lessee reasonable use of the surface for installations.

B. THE OIL AND GAS LEASE

Once an operator decides to pursue an active course of exploration in a given area, he will then approach the mineral owner(s) in an attempt to secure the necessary rights. In contemporary practice, these exploration and development rights will almost invariably be in the form of an oil and gas lease.

The granting of a lease has, in itself, no impact other than a positive economic gain for the lessor (the party granting the lease). However, it has been argued that the granting of a lease creates the potential for negative environmental impacts since the lessee (the party to whom the lease has been granted) has an implied easement to use the surface of the land as may be reasonably necessary to obtain the minerals covered by the lease. The lessee's interest is the dominant one and the surface of the land is servient to his use. Inasmuch as a lease is a negotiated instrument, it is within the
province of the potential lessor to condition the granting of a lease on the inclusion of such protective stipulations as may be deemed necessary. Furthermore, before any drilling may take place, each well must be permitted by the State. Such permits are granted on a site specific basis and subject to protective stipulations which may be called for upon completion of the Environmental Assessment Form. Nonetheless, an examination of the standard provisions found in a contemporary lease is instructive.

1. Lease Objectives - The essential provisions of an oil and gas lease are those necessary to make a valid transfer of rights and accomplish the lessee's fundamental goals which are:
   a. to obtain the right to develop leased land for an agreed term without any obligation to develop, and
   b. if production is obtained, to have the right to maintain the lease for as long as it is economically viable.

2. Primary Lease Clauses - Generally, these provisions can be found in just three clauses; the granting clause, the term clause and the drilling delay rental clause.
   a. The granting clause of an oil and gas lease spells out the rights that are granted by the mineral interest owner to the lessee. The effect is to grant to the lessee the right to search for, develop and produce oil and gas from the leased premises without imposing any obligation to do so. To be valid, the granting clause must identify the size of the interest granted, the substances covered by the lease and the land covered by the lease. In addition, most granting clauses specifically indicate uses permitted.
   b. The term clause of an oil and gas lease sets the period of time that the rights given in the granting clause will extend.
Typically, modern lease term clauses provide for a *primary* and *secondary* term. The *primary term* is a fixed term of years during which the lessee has the right, without any obligation, to operate on the premises. The *secondary term* is the extended period of time for which rights are granted to the lessee once production is obtained.

The purpose of the primary term is to give the lessee adequate time to acquire additional leases in the area; to do geological and geophysical tests to determine the feasibility and location of test wells; and to arrange for financing and support services to drill. The length of the primary term is often established by negotiation and is a function of existing and anticipated market conditions. Ten years was once a common primary term. It is still frequently used in unproven and marginally producing areas. Terms from one to five years are more typical in areas with established oil and gas production.

The primary term states the maximum period of time for which the lessee can maintain the lease rights without drilling. It may be cut short either by surrender of the lease by the lessee or by failure to pay delay rentals properly. It may be extended by production or, under many leases, by operations into the secondary term.

The purpose of the secondary term is to give the lessee the right to hold a producing lease as long as it is economically sound to do so. The secondary term is an indefinite period of time simply because it is impossible to determine for how long a lease will be profitable at the time it is granted.

c. The drilling delay rental clause ensures that the lessee has no
obligation to drill during the primary term by mitigating any implied obligation to test the premises.

Lessors do not generally resist drilling delay rental clauses. In part, this is because the clauses have become customary in lease forms. Lessors commonly enter into leases with the expectation that development will not occur until close to the end of the primary term, if ever. Those who consider the timing of drilling the first well important will negotiate for a short primary term or for a specific drilling obligation. Moreover, many lessors look forward to periodic receipt of delay rental payments.

3. Defensive Clauses - The foregoing clauses are indispensable in a modern oil and gas lease. However, they constitute only a part of the overall document. Over the years, a number of defensive clauses have come to be routinely included in the oil and gas lease.

In contrast to real property leases, oil and gas leases are generally interpreted strictly against the lessees. Strict interpretation has been justified by the rules of construction that a written instrument is to be interpreted against its drafter, that an instrument is to be construed against the party owing performance under it, and that an option is to be construed against its holder as well as by public policy in favor of freeing property to be developed by another. At the trial court level, strict interpretation against the lessee may be explained on the mundane basis that disputes over lease provisions usually go to trial in the county where the lessor lives, before judges and juries living in the area.

Lessees have countered strict interpretation by using defensive
language. As a result, leases now contain lengthy and complicated
defensive clauses to protect what lessees regard as their legitimate
interests.

Clausles have been added to oil and gas leases to modify the
general rule that a lease terminates at the end of its primary term
unless there is production in paying quantities. These clauses
extend the term of the lease without production in stated
circumstances. This group includes: (1) dry hole clauses, (2)
operations clauses, (3) pooling and unitization clauses, (4) force
majeure clauses, (5) shut-in royalty clauses and (6) cessation of
production clauses.

(1) A dry hole clause prevents the consequences of condemnation or
abandonment of the lease from the drilling of an unproductive
well on the leased premises and clarifies what the lessee must
do to maintain the lease for the remainder of the primary term.

(2) An operations clause is included in most leases to protect the
lessee against expiration of the primary term while drilling
operations are in progress. The clause also functions to extend
the lease beyond the cessation of drilling operations in the
secondary term for so long as the lessee pursues completion of
the well and the marketing of its production with due diligence.

(3) Pooling and unitization provisions in a lease give the lessee
authority to commit the lease property to pooling and
unitization and to adjust the rights of the involved parties
accordingly.

(4) A force majeure clause in an oil and gas lease relieves the
lessee of complying with duties imposed by the lease if failure
to perform results from causes recognized as beyond the control
of the lessee and so named in the clause.

(5) Most leases now contain a shut-in royalty clause which provides for maintenance of the lease by payments in lieu of production if a well capable of producing is shut-in beyond a specified period.

(6) It is inevitable that oil and gas wells will cease production from time to time. Equipment must periodically be repaired or replaced. Routine maintenance may require that the well be shut down for a "workover". Few oil and gas wells produce without interruption over the course of their existence. Because of the obvious inequity of termination for a temporary stoppage, most oil and gas leases now contain a temporary cessation of production clause. This clause states that so long as production does not cease for more than an agreed period of time, the lease will be maintained.

Another group of defensive clauses in lease forms is intended to liberalize the relationship between the lessor and the lessee. These are provisions that the lessees could function without but, when present, simplify administration and aid in avoiding problems of strict lease interpretation. They include, but are not limited to: (1) payment of delay rentals, (2) warranty clause, (3) lesser interest clause, (4) subrogation clause, (5) equipment removal provisions, (6) notice of assignment clause, (7) no increase of burden provisions, (8) separate ownership clause, (9) surrender clause and (10) notice before forfeiture and judicial ascertainment clause.

4. Royalty Clauses and Implied Coverants - Up to this point, the clauses discussed have been those deemed necessary by the lessee to protect his interests in the property. From the lessor's point of view, the
main provision in an oil and gas lease is usually the royalty clause, which provides for compensation to the lessor. The lessor receives a bonus payment for the grant of a lease and, during the primary term, may receive periodic payment of delay rentals. If production is obtained, the lessor will then be paid a royalty, which is usually stated as a percentage of production or proceeds.

Royalty as a percentage of production is a hedge against uncertainty. The existence of hydrocarbons beneath a leasehold cannot be proved until a well is drilled. If no production is gained, the royalty is without value. On the other hand, if the presence of abundant recoverable reserves is proven, the royalty becomes extremely valuable. A percentage royalty balances the interests of the lessor and the lessee against the inherent risks of exploration.

Contemporary leases are usually drafted and prepared by the lessees to protect their interests in exploration and development. However, lessees are held bound by terms in addition to those that are written. Implied covenants are unwritten promises that generally impose burdens on lessees and work to protect the lessors. Five of the most commonly encountered implied covenants are: (1) The Implied Covenant to Reasonably Develop, (2) The Implied Covenant for Further Exploration, (3) The Implied Covenant to Protect Against Drainage, (4) The Implied Covenant to Market and (5) The Implied Covenant to Operate with Reasonable Care and Due Diligence.

Of the foregoing, the fifth Implied Covenant is noteworthy. Claims for breach of the Reasonable Care and Due Diligence Covenant have, in the past, been based on the following objections.

a. Lessee damage to property through negligence or incompetence.
b. Damage to lessor by lessee by premature abandonment of a productive well.

c. Failure by lessee to use advanced production techniques.

d. Failure of lessee to protect lessor through failure to seek favorable regulatory action.

Due to the broadly based wording of this covenant, the categories of application listed above should not be considered as limits to its usage. The courts have been quick and creative in extending implied covenants to protect lessors' interests. It is likely that the Implied Covenant to Operate with Reasonable Care and Due Diligence will be used by the courts to remedy future problems, such as environmental impact issues, even though they do not clearly fall within the categories noted above.

C. CONCLUSIONS

The material presented in this brief summary about oil and gas leasing represents the provisions found in almost all modern oil and gas agreements. It is becoming increasingly common to find leases that have been negotiated with additional special clauses or amendments written into the instruments. Heightened environmental awareness and increased sophistication on the part of lessors have led to an increase in demand for express covenants to govern special areas of concern.

For example, a lessor may wish to have express provisions included in a lease which address such items as the lessee's responsibility for surface damage, the proximity of wells to structures on the property, injury to livestock, protection of water supplies, unique wildlife habitats, wetlands, noise control, etc.

From the foregoing material, it is readily apparent that the oil and gas lease is a complex instrument. It is broadly worded in part to allow for
unforeseen events and is minutely detailed in other areas to cover areas of specific concern. Since a lease is a binding legal document which may be in force for a long period of time, landowners should consult with legal counsel before entering into any such agreements. Such action will help landowners to avoid or mitigate potential negative impacts to their property while simultaneously allowing them to enjoy the economic benefits realized from the production of any minerals found under their land.