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COALBED METHANE: MYTHS, FACTS, AND LEGENDS OF ITS HISTORY AND THE LEGISLATIVE AND REGULATORY CLIMATE INTO THE 21ST CENTURY

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I. Introduction

Coalbed methane, also known as coal seam gas, occluded natural gas, and gob gas, has historically been considered one of the greatest hazards to coal mining. Collected methane gas in the mines was intentionally exploded or vented to prevent accidental explosions or asphyxiation. Mine owners and mining families were all too familiar with the tragic deaths caused by methane gas in the mines. Commercial extraction of the coalbed methane was economically impractical. Consequently, when deeds, contracts, and statutes relating to coal and mining rights were drafted,

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the drafters rarely considered the question of coalbed methane ownership because it was considered valueless.2

Modern extraction methods have now made coalbed methane production practical. As a result, courts are being called upon to determine the ownership of coalbed methane in situations where mining and mineral rights have been divorced from other incidents of ownership of the lands at issue. In its simplest form, the question is whether the entity which acquires the coal and/or gas rights also acquires the coalbed methane rights. The issue also gives rise to questions concerning the right to vent commercially exploitable coalbed methane as a necessary part of safe coal mining and the right to capture the coalbed methane which can migrate from one property to another or from one stratum to another. The question necessarily involves a complex interaction between traditional property and mineral rights laws. The analysis is complicated by the need to determine the intent of the parties at the time the contracts and/or deeds were drafted and executed.

A. History, Production, and Development

"Coalbed gas consists almost entirely of methane, with trace amounts of higher hydrocarbons such as ethane and propane, and with insignificant quantities of other gases such as N₂ and CO₂." Coalbed methane is created during the conversion of accumulated plant material into coal.4 The amount of coalbed methane contained in a particular coalbed depends upon a number of factors, including the thickness and extent of the coalbed, the coal ranking, the thickness of the overburden, and the hydrostatic pressure.5 Coalbed methane contains few impurities with carbon dioxide and water being the primary undesirable constituents.6 Because coalbed methane is extremely explosive in concentrated levels, it poses a severe coal mine safety hazard.7 Thus, the removal of coalbed methane prior to mining is attractive to coal operators because it enhances mine safety, reduces ventilation costs, and decreases

2. See infra notes 46–47 and accompanying text. Also, see infra part II (Coalbed Methane Case Summaries) and, in particular, part II.D, (Analysis, Contrast, Comparison and Resolution of the Alabama Decisions).


4. Id.; see also Edward A. Craig, III & Marlee S. Myers, Ownership of Methane Gas in Coalbeds, 25TH ANNUAL ROCKY MTH. MIN. L. INST. 767-68 (1979) ("Coalification is the process by which plant material buried in sediments is successively transformed from peat into lignite, subbituminous coal, bituminous coal and finally anthracite coal.")


6. Id.

7. Id.
atmospheric pollution. If the coalbed methane is recovered and marketed, it adds an economic incentive to the equation.

The first serious research regarding coalbed methane production occurred in the 1970s when the U.S. Bureau of Mines and United States Steel Corporation (U.S. Steel) developed a test project in the Black Warrior Basin in Alabama. This program was expanded by the Bureau of Mines and the Department of Energy into a twenty-three-well project. The project demonstrated that 73% of the "in-place" methane could be produced through vertical wells. The Bureau of Mines and the Department of Energy stated that the wells could efficiently drain a "substantial area." The Gas Research Institute (GRI) began its coalbed methane research in the 1980s. Its activities relating to coalbed methane have included estimating and evaluating the resource, cooperative well studies, reservoir engineering analysis, fracturing and completion work, operational improvements, and recompletion of wells. GRI's initial research defined the size and the characteristics of coalbed methane. In addition, the unique reservoir properties of coal were identified and then analyzed to achieve effective coalbed methane production. GRI developed a coalbed methane-specific reservoir model and adapted hydrologic well testing methods to determine coal seam permeability. Further, it generated methods to obtain data on adsorbed gas content and developed stimulation techniques that recognized the differences between coal and other reservoirs. GRI's research resulted in a coalbed methane operations manual available through the Society of Petroleum Engineers (SPE). Three other publications will cover gas content, reservoir engineering, and water disposal.

The increased production of coalbed methane in the Appalachian, Black Warrior, San Juan, Piceance, Powder River, and Greater Green River Basins indicates that

8. Id.
9. Id.
11. Id.
12. Id.
13. Id.
16. Id.
17. Id.
18. Id.
20. Id. The guides to gas content and reservoir engineering have been published (A Guide to Determining Coalbed Gas Content (1994), and Guide to Coalbed Methane Reservoir Engineering (1995)) and are available through the SPE (Society of Petroleum Engineers, P. O. Box 833836, Richardson, TX 75083-3836).
coalbed methane has emerged as a valuable energy resource. In 1982, the national annual coalbed methane production was virtually zero.\(^{21}\) By 1990, production nationwide had risen to 195 billion cubic feet (BCF), approximately 475 BCF was produced in 1992, and 1993 production reached 730 BCF.\(^{22}\) GRI projects that the 1995 coalbed methane production could exceed 800 BCF.\(^{23}\) The number of coalbed methane wells in the nation has grown from a handful in 1982 to over 6,600 in 1992.\(^{24}\) In Virginia alone, in the Appalachian Basin, production increased more than 300%, rising from just 6 BCF in 1992 to 19.9 BCF in 1993, with 465 wells in production.\(^{25}\)

\(\begin{align*}
22. & \text{Id.; Benson, supra note 14, at 127.}
23. & \text{Ban, supra note 21.}
24. & \text{11 Gas Research Institute, Quarterly Review of Methane from Coal Seams Technology No. 1 at 2 (David G. Hill ed., Aug. 1993) [hereinafter Quarterly Review No. 11]; see also Benson, supra note 14, at 127.}
\end{align*}\)

By 1994, coalbed methane accounted for five percent (5%) of the nation's natural gas production. Scott H. Stevens et al., Technology Spurs Growth of U.S. Coalbed Methane, Oil & Gas J. Jan. 1, 1996, at 56. In addition, coalbed methane represents six percent (6%) of the nation's reserves. Id. Additional reserves of 13 tcf have been located in the U.S. during the past five years. Id. at 56. Coalbed methane reserves have remained virtually unchanged since 1992 even though production has increased. Id. at 57.

Although coalbed methane well completions declined from 1992 (948) to 1995 (432), coalbed methane production increased from 562 BCF in 1992 to 858 BCF in 1994 and to a projected 973 BCF in 1995 (based on mid-year data). Id. This represents an increase in coalbed methane production of fifty percent (50%) between 1992 and 1994. Id. The number of producing coalbed methane wells has risen from 5,384 in 1992 to 6,201 in 1994. Id.

The San Juan basin continues to dominate the nation in coalbed methane production. The San Juan basin encompasses eighty-two percent (82%) of the total production. Id. at 58. The other major producing basins are the Black Warrior representing approximately eleven percent (11%) and the Appalachian with approximately three percent (3%) of total production. Id.

25. Quarterly Review No. 11, supra note 24, at 7-8; Benson, supra note 14, at 127.

Virginia has been leading the Appalachian Basin in development of coalbed methane, and there are no signs of any demise in production. Tom Fulmer of the Division of Gas & Oil [Division] reported to the Virginia Oil and Gas Association (VOGA) members that natural gas development in Virginia has grown at an "incredible" rate, and 1993 was no exception. Benson, supra note 14, at 127. Most notably, for the first time since operators began developing coal seam gas in the late 1980s, production of coalbed methane surpassed conventional gas. Id. In 1993 Virginia operators produced 19.9 BCF of coalbed methane. Id. In 1992, the total coalbed methane production was 6 BCF. Id. In early July 1994, permitting activity was already 15% ahead of the same point in 1993. Id. In 1993, 252 permits had been filed for coalbed methane activity. Id. Of the 202 wells completed in 1993, 132 were for coalbed methane. Id. Buchanan County was the most prolific producer of coalbed methane, with its 305 wells yielding 76.9% of the total, followed by Dickenson at 19.6% and Russell with 3.5%. Id. Equitable Resources Exploration was the state's top natural gas and coalbed methane producer in 1993, reporting 17.14 BCF, followed by Island Creek Coal Company (5.39 BCF), Pocahontas Gas Partnership (7.51 BCF), OXY USA, Inc./Consolidation Coal Company (2.38 BCF), Virginia Gas Company (1.64 BCF) and Columbia Natural Resources (1.46 BCF). Id. VOGA's President, R. Neal Pierce of Columbia Natural Resources, said Virginia's industry should be proud of its leading role in the development of coalbed methane in the Appalachian region. "We are beginning to see some interest in other Appalachian Basin states. They are looking not only at our drilling experience but the legislative experience here in Virginia to determine what it will take to develop coalbed methane throughout the basin." Id.
GRI attributed the increase in production to new technology, improved information, and favorable tax treatment.26 The section 29 tax credit was a major factor in stimulating coalbed methane development.27 This section of the Internal Revenue Code encouraged the development of domestic nonconventional energy resources. The tax credit had an initial expiration date of January 1991,28 but Congress extended the deadline to apply to wells drilled prior to January 1993.29

A new drilling technique, "dynamic open-hole completion,"30 is also generating

By 1995, Virginia's coalbed methane drilling activity had decreased. A total of 137 coalbed methane permit applications were filed in 1995, and 125 coalbed methane well permits were issued by the Division. Division of Gas & Oil, Dept of Mines, Minerals & Energy, Commonwealth of VA., 1995 Gas & Oil Rep. at 3-4 (1996). Of the 95 total wells drilled in 1995, 82 were completed. A total of 68 of the completed wells were coalbed methane wells. Id. at 5.

Coalbed methane production was rising in 1995 and continued to exceed conventional gas production totals in Virginia. The 1995 coalbed methane production reached 30.4 BCF, while conventional gas production was 19.5 BCF. Id. at 10. Thus, the ratio of coalbed methane to conventional gas production was sixty-one percent (61%) to thirty-nine percent (39%). Id. at 11.

Equitable Resources Exploration remained Virginia's top producer of conventional gas at 14.2 BCF. Id. at 13. Pocahontas Gas Partnership, however, was the leading producer of coalbed methane with forty-one percent (41%) of the total production (12.4 BCF). Id. at 14. Buchanan County (24.3 BCF) retained its number one position as it led coalbed methane production with eighty percent (80%) of the Commonwealth's total coalbed methane production (30.4 BCF). Id. at 10. Dickenson County (28.2%/5.2 BCF) cornered the market over Russell County where production of coalbed methane fell to 0.569 BCF, representing only one-hundredths of a percent (0.01%). Id.


27. M. Jill Morgan & Elizabeth A. McClanahan, Competing Ownership Claims to Coalbed Methane in the Appalachian Basin, Landman, July-Aug. 1990, at 19; see I.R.C. §§ 29, 29(f)(1) (1988). Section 29 permitted producers of alternative fuels to claim a non-refundable income tax credit for the production of oil, gas and synthetic fuels derived from nonconventional sources and sold to non-related persons. Generally, the credit was $3 multiplied by the barrel-of-oil equivalent of the qualifying fuel. The credit was phased out as the wellhead price of uncontrolled domestic oil rose to specified oil levels. In order to have claimed the credit, the fuels must be produced: (1) in facilities placed in service after December 31, 1979, and before January 1, 1993; or (2) from wells drilled after December 31, 1979, and before January 1, 1993. Finally, such fuels must be sold before January 1, 2003. See also Patricia D. Bragg & Patricia A. Patten, Land, Legal and Tax Issues (Gas Daily Coal Seam Gas Conference, Nov. 5-6, 1991); Vello A. Kuuskraa, Economics of Coalbed Methane (Gas Daily Coal Seam Gas Conference, Nov. 5-6, 1991). As late as 1993, the § 29 credit for tight sands gas and coalbed methane was rising. Section 29 Tax Credits Rise for 1993, Improved Recovery Wk., Oct. 31, 1994, at 2. Companies are now developing structures to shift tax credits from producers to investors. Dennis J. Grindinger, Various Structures for Shifting Section 29 Credits from Producer to Investor, 17 E. Min. L. Inst. (1996).


30. Dynamic open-hole completion is a process of repeated injection of air or an air-water mixture into an open-hole interval followed by sudden release of pressure. These actions are believed to create a plastic zone around the wellbore primarily through shear failure, similar to that for wellbore breakout (Haimson and
interest, both nationally and internationally, in coalbed methane technology.\textsuperscript{31} This technique has achieved spectacular production results in portions of the Central San Juan Basin.\textsuperscript{32} The results, however, have not been as dramatic in other areas.\textsuperscript{33} The most important reservoir characteristic in the success of open-hole dynamic completion, also known as cavity completion, is absolute permeability.\textsuperscript{24} The widespread effectiveness of this technique is yet to be determined.

Utilizing GRI research, producers learned that the coalbed methane was not "stored" in thecoalbeds in the same manner as a conventional gas reservoir.\textsuperscript{35} Methane is adsorbed\textsuperscript{35} onto the internal surface of the coal and held there by the water pressure in the formation.\textsuperscript{37} In order to remove the coalbed methane, the water pressure must be reduced. Once the pressure is reduced, the coalbed methane desorbs and flows to the wellbore through the fractures in the coal.\textsuperscript{36} In order to economically produce coalbed methane, an artificial stimulation of the coalbed or coal seam must occur.\textsuperscript{38} Hydraulic stimulation injects jelled water and propping sand into the coal seams creating fractures and increasing the flow of coalbed methane.\textsuperscript{40} Cavity stress relief is another stimulation method that was developed for coal seam demethanation.\textsuperscript{43} This stimulation has proven more effective than hydraulic fracturing for demethanation purposes.\textsuperscript{42} Other production methods include open-hole completions, perforated casing completions, slotted liner completions, and stable cavity completions.\textsuperscript{43} These completion methods may also require hydraulic fracturing (stimulation).\textsuperscript{44}

Many of the larger mining companies in the United States are currently pursuing the production of coalbed methane for the sale of the produced coalbed methane and

\begin{itemize}
  \item Herrick, 1985; Zheng and Cook, 1985; Zheng and others, 1988).
  \item John D. McLennan et al., Creation of an Open-Hole Cavity — Theory and Laboratory Result, in 11 GAS RESEARCH INSTITUTE, QUARTERLY REVIEW OF METHANE FROM COAL SEAMS TECHNOLOGY 27, Nos. 3 & 4 (David G. Hill ed., Apr. 1994).
  \item Id.
  \item Bruce S. Kelso, Geologic Controls on Open-Hole Cavity Completions in the San Juan Basin, in 11 GAS RESEARCH INSTITUTE, QUARTERLY REVIEW OF METHANE FROM COAL SEAMS TECHNOLOGY 1, Nos. 3 & 4 (David G. Hill ed., Apr. 1994); Logan, supra note 30, at 13.
  \item Logan, supra note 30, at 13.
  \item Ban, supra note 21.
  \item "To take up (liquid or gas) on the surface of a solid." AMERICAN HERITAGE DICTIONARY 9 (office ed. 1985).
  \item Ban, supra note 21, at 103.
  \item Id.
  \item Craig & Myers, supra note 4, at 769.
  \item Id., at 769-70.
  \item Id.
  \item Holditch, supra note 26, at 103.
  \item Id.
\end{itemize}
for the degasification effect on mining. This dual purpose makes a coalbed methane production project economically attractive and efficient to the gas producer as well as the coal producer.

B. Ownership Theories

1. Intent of Parties

The question of the extent of mineral rights conveyed or reserved generally includes a consideration of the intent of the parties or drafters of the instruments (deeds and leases) or statutes which created the rights. Therefore, courts are now being called upon to determine the intent of individuals who historically gave little, if any, consideration and likely never formed any intent as to the ownership of coalbed methane. In some instances, however, the courts must also decide whether the intent of the parties or legislators is or should be a factor in the coalbed methane ownership determinations.

2. Definitions of "Gas," "Coal," and "Minerals"

Many of the cases analyzing the coalbed methane ownership issue have included arguments regarding the definitions of "gas" and "coal." The location of the coalbed methane in the coal seam provides the coal owner a substantial claim. The coal owner can claim that the coalbed methane is an inherent part of the coal and that


46. See Southern Ute Indian Tribe v. Amoco Production Co., No. 91-B-2273 (D. Colo. February 5, 1995) (basing its decision, in part, on legislative intent); Combs v. Hounshell, 347 S.W.2d 550, 552 (Ky. 1961) (finding that the goal of deed construction is to effect the intent of the parties as that intent can be gathered from all of the provisions of the deed); Conner v. Hendrix, 72 S.E.2d 259, 265 (Va. 1952) (finding that the provisions are to be viewed as a whole, with effect and meaning being accorded to every word used in the instrument, if possible); Horne v. Horne, 26 S.E.2d 80, 84 (Va. 1943) (holding that intent is to be gathered from the language used throughout the instrument); Ward v. Baylor, 153 S.E. 894, 896 (Va. 1930) (finding that in interpreting an instrument, a court will generally attempt to determine the purpose and intent of the grantor); James River & Kanawha Power Co. v. Old Dominion Iron & Steel Corp., 122 S.E. 344, 349 (Va. 1924) (finding intent of the deed is to be gathered from the deed as a whole); SC MICHIE'S JUR. Deeds § 57 (1983) (stating that, in construing a deed, the object is to ascertain the intention as gathered from the language and the general purpose and scope of the instrument, in the light of surrounding circumstances; and, when such intention clearly appears, by giving to the words their natural and ordinary meaning, technical rules of construction will not be invoked to defeat it); see also 30 U.S.C. §§ 181-287 (1994) (originally enacted as the Mineral Leasing Act of 1920, ch. 85, 41 Stat. 437); 30 U.S.C. §§ 541-541(i) (1994) (originally enacted as the Uraniferous Lignite Act of 1955, ch. 795, 69 Stat. 679); 43 U.S.C. § 299 (1994) (originally enacted as the Stock-Raising Homestead Act of 1916, ch. 9, 39 Stat. 862); 30 U.S.C. § 81 (1994) (originally enacted as Act of Mar. 3, 1909, ch. 270, 35 Stat. 844); 30 U.S.C. §§ 121-123 (1994) (originally enacted as Act of July 17, 1914, ch. 142, 38 Stat. 509); 30 U.S.C. §§ 83-85 (1994) (originally enacted as the Coal Lands Act of 1910, ch. 318, 36 Stat. 583); Act of June 15, 1880, ch. 223, 21 Stat. 199.

47. Id. A court cannot consider intent of the parties unless it determines that an ambiguity in the language exists. See J. Maddox' dissenting opinion in Cantley v. Hubbard, 623 So. 2d 1079, 1082 (Ala. 1993).
ownership of the coal seam includes ownership of the "gas" contained within it.\textsuperscript{48} In contrast, however, the chemical composition of coalbed methane is nearly identical to that of natural gas.\textsuperscript{49} This fact provides the gas owner with a significant argument for ownership. Another theory the gas owner may espouse is that the right to produce coalbed methane from coal is no different than the right to remove natural gas from other subsurface formations (i.e. the sandstone formation, which may not belong to the gas estate owner).\textsuperscript{50}

Finally, even a surface owner may have some claim to the coalbed methane, although this position is clearly the weakest. In a fact situation where the coal, oil, and gas have been specifically severed, a surface owner could claim that since coalbed methane was not contemplated (or considered to be a hazard) at the time of the severances, ownership of the nonsevered mineral, the coalbed methane, remains with the "surface" or "other mineral" owner.\textsuperscript{51}

For example, assume that Landowner A owns the property in fee simple (no prior mineral severances). Landowner A sells the property to Landowner B reserving the coal. Landowner B subsequently sells the property to Landowner C reserving the oil and gas. Landowner A owns the coal and Landowner B owns the oil and gas. Thus, Landowner C, the "surface owner," would apparently own the residual minerals. If the coal owner (Landowner A) and the oil and gas owner (Landowner B) do not own the coalbed methane, the "surface owner" (Landowner C) as the residual mineral owner could claim the coalbed methane ownership. Now, consider the further complications of coal lessees, oil and gas lessees, and mineral lessees.

"Gas" has been defined as "[t]he aeriform fluid, having neither independent shape nor volume, but tending to expand indefinitely."\textsuperscript{52} The federal agency charged with governing certain mineral regulations, the Minerals Management Service, Department of the Interior, defines gas as:

\begin{quote}
[A]ny fluid, either combustible or noncombustible, which is extracted from a reservoir and which has neither independent shape nor volume, but tends to expand indefinitely; a substance that exists in a gaseous or rarified state under standard temperature and pressure conditions.\textsuperscript{53}
\end{quote}

\textsuperscript{48} Paul N. Bowles, \textit{Coalbed Gas: Present Status of Ownership Issue and Other Legal Considerations}, 1 E. Min. L. Inst. 7 (1980).
\textsuperscript{49} Id.; see also Ske'ly Oil Co. v. Savage, 447 P.2d 395, 402 (Kan. 1968) (finding that liquids produced from a well are associated with the gas and such liquids are produced along with the gas; the gas cannot be produced without carrying with it the associated liquids); Blocker v. Christie, 340 S.W.2d 320, 321 (Tex. Civ. App. 1960) (finding that the evidence showed that the liquids involved look like oil, taste like oil, smell like oil and are stored and sold like oil; when the gas leaves the wellhead it is gaseous, And is also gaseous as it existed in the well).
\textsuperscript{50} Bowles, supra note 48, at 7-12.
\textsuperscript{51} Id. The "surface" owner claim to coalbed methane would not be applicable in cases where only the surface was granted to the owner. It would, however, be applicable in situations where the coal, oil, and gas had been conveyed, but the other ("residual") minerals were owned by the "surface owner."
\textsuperscript{52} Amoco's \textit{Brief in Support}, supra note 3, at 111 (citing \textsc{A Glossary of the Mining and Mineral Industry} 295 (1920)).
\textsuperscript{53} Id. (citing 43 C.F.R. § 3000.0-5 (1992); accord 30 C.F.R. §§ 206.151, 216.6(i) (1992)).
Another definition of gas is "a fluid (as air) that has neither independent shape nor volume but tends to expand indefinitely . . . ." 54 The plain meanings of "gas" appear to definitely include coalbed methane. However, only a few courts have held that "gas" includes coalbed methane in their analysis of the ownership issue. 55 Other arguments in favor of the gas owner include: (1) the recovery method parallels that of natural gas; (2) the migratory nature of coalbed methane is the same as that for natural gas; and (3) the reversion of the container space to the gas owner once the coal is mined.

"Coal" is defined under the Bureau of Indian Affairs, Department of the Interior, the agency charged with governing certain mineral regulations, as "combustible carbonaceous rock, classified as anthracite, bituminous, subbituminous, or lignite by A.S.T.M. designation O-388-666." 56 The Dictionary of Mining, Mineral and Related Terms defines "coal" as:

A solid, brittle, more or less distinctly stratified, combustible carbonaceous rock, formed by partial to complete decomposition of vegetation . . . not fusible without decomposition and very insoluble. The boundary line between peat and coal is hazy . . . as is the boundary line between coal and graphite and the boundary line between carbonaceous rock and coal . . . . 57

Webster's Dictionary defines the term "coal" as:

[A] black or brownish black solid combustible mineral substance formed by the partial decomposition of vegetable matter without free access of air and under the influence of moisture and in many cases increased pressure and temperature, the substance being widely used as a natural fuel and containing carbon, hydrogen, oxygen, nitrogen, and sulfur as well as inorganic constituents that are left behind as ash after burning . . . . 58

The plain meaning of the word "coal" is a solid mineral, not a gas. 59 Other arguments for the coal owner include: (1) coalbed methane is adsorbed onto the coal; (2) the physical bond between the coal and the coalbed methane is so close

54. Amoco's Brief in Support, supra note 3, at 112 (citing WEBSTER'S NEW THIRD INTERNATIONAL DICTIONARY 937 (1976)).
55. NCNB Texas Nat'l Bank v. West, 631 So. 2d 212, 238 (Ala. 1993); Southern Ute Indian Tribe v. Amoco Production Co., Case No. 91-B-2273 (D. Colo. February 5, 1993); Rights to Coalbed Methane Under An Oil & Gas Lease for Lands In the Jicarilla Apache Reservation, 98 I.D. 59 (M-36970 1990); Ownership of and Right to Extract Coalbed Gas in Federal Coal Deposits, 98 I.D. 538 (M-35935 1981).
57. Id. at 108 (citing the DICTIONARY OF MINING, MINERAL AND RELATED TERMS 222 (1968)) (emphasis added).
58. Id. at 108-09 (citing WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 432 (1976)) (emphasis added).
59. Id.
that the two cannot be separated; and (3) the coal seam is the source of and the reservoir for the coalbed methane.60

3. Method of Production

The location (site) of the coalbed methane at the time of its capture and production may result in different ownership claims.61 Originally, most coalbed methane was produced as a result of coal mining and was vented into the atmosphere.62 No one has questioned this practice as it is inherent to coal mining and coal mine safety.63 Furthermore, federal and state laws have imposed a duty upon the coal operator to provide proper mine ventilation.64 Thus, an argument can be made that the right to remove coal includes the incidental right to remove the coalbed methane. The processes of removing the coal and the coalbed methane are intertwined and not easily separated. In addition, coal is necessarily removed in the process of producing the coalbed methane. Some experts assert that microscopic size coal dust is removed with the coalbed methane and must be filtered and removed. In addition, chunks of coal may also be removed with the coalbed methane and may interfere with the separation process.65 The method used to fracture a coal seam to release the coalbed methane may destroy the mineability of the coal seam, thus destroying the entire estate of the coal owner in that particular seam.66 These reasons lend support to the coalbed methane ownership claim by the coal owner.

There are several methods of coalbed methane extraction. The primary, but not exclusive, methods of coal degasification are vertical, horizontal, and longwall gob wells.67 Vertical extraction is the method used in conventional natural gas drilling operations. A vertical borehole is drilled from the surface to the coal seam, and gas is extracted through pipes to the surface.68 Horizontal extraction entails the

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63. Id.


66. See Kemp & Peterson, supra note 5, at 235.


68. Id.; see Patrick C. McGinley, Legal Problems Relating to Ownership of Gas Found in Gas
construction of a vertical shaft from the surface to the seam of coal. At the bottom of
the shaft, horizontal holes are drilled through the surrounding coal, and the gas
is collected and piped to the surface. The primary advantage of this construction is
that the shaft can later be used in mining operations to remove the coal. Longwall
gob degasification, as the name implies, is used in conjunction with longwall mining. During longwall mining, the strata or overburden above the
mining roof is fractured. This zone is called the gob. Gas released during mining
flows into this fracture zone and is pumped through vertical boreholes.

Thus, the gray area, where either party could claim ownership, includes the
following questions or premises: (1) whether all of the coalbed methane is
generated by the coal seams, or does some part of it migrate from the sandstone
formations; (2) point of capture: whether the gas contained in the coal belongs to
the coal owner and the part of the gas that migrates out of the coal seam belongs
to the gas owner; (3) the ownership in place theory v. the rule of capture; (4)
ambiguous private instruments leasing, granting, or reserving the mineral interests
(intent of the parties arguments); (5) statutory construction (predominantly in the
federal context) and the legislative history of the statute; and (6) the regulatory
and statutory treatment, including the permitting process, statutory definitions, spacing
rules, and communitization/pooling arrangements and administrative law orders.

These ownership questions and issues have made exploitation of coalbed methane
more difficult for the obvious reason that parties are reluctant to spend capital
dollars for drilling when they cannot be certain which party holds title to the
resource. Virginia legislators reduced this problem for developers in Virginia when

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69. McGinley, supra note 68.
70. Longwall mining is defined as
a mining technique by which coal is removed without leaving pillars to support the mine roof. The
mine roof is held up by self advancing hydraulic supports that progress forward with the cutting
equipment, allowing the roof to collapse behind the supports. Conversely, the room and pillar or
conventional mining method results in the development of a room and pillar configuration.
Lane, supra note 1, at 584 (footnote omitted).

In an excellent article relating to longwall mining, Joshua I. Barrett describes the effects of longwall
mining as follows:

Modern longwall mining is an underground mining technique which removes coal from
a 'panel' which may be from 400 to 1000 feet along the face and from 1,000 to over
10,000 feet long. The coal seams mined by this method must be relatively level and range
from 40 to 180 inches in seam height. It is a highly mechanized system, typically
consisting of three principal components: a shearer or plow, which cuts the coal as it
moves across the face; a chain-type armored face conveyor to remove the coal from the
face; and a system of self advancing hydraulic roof supports, usually chocks or shields,
which support the roof as the shearer makes its cut and then allow the roof to collapse
behind the mining. In the United States, longwall mining is the retreat type; the
longwall panels are situated between development sections or panel entries consisting of
a row or rows of chain pillars, laid out parallel to the main entries, which allow access
and ventilation to the panel and define its dimensions.

Id. at 584-85 (citation omitted).
71. Id.
they enacted coalbed methane development provisions in the 1990 revisions to the Virginia Gas and Oil Act.\textsuperscript{72} Virginia's legislation provides a mechanism for development of coalbed methane even if competing ownership claims exist — "forced" or "compulsory" pooling.\textsuperscript{73} Other states, including Alabama, Colorado, Mississippi, Montana, New Mexico, Utah, Virginia, Washington, West Virginia, and Wyoming have provisions for coalbed methane development.\textsuperscript{74} Louisiana, which was excluded from the provisions of the National Energy Policy Act of 1992 (EPACT),\textsuperscript{75} does not regulate coalbed methane production.\textsuperscript{76} Louisiana only regulates surface mining.\textsuperscript{77} In addition, Alabama does not provide a specific "forced pooling" scheme for coalbed methane competing ownership claimants.\textsuperscript{78} Since many states with coalbed methane reserves were in limbo with regard to coalbed methane development and ownership issues, Congress enacted EPACT.\textsuperscript{79} EPACT's goals for coalbed methane development include: (1) consideration of existing and future coal mining plans; (2) preservation of the mineability of coal seams; and (3) provisions for the prevention of waste and maximization of recovery of coal and coalbed methane gas in a manner which will protect the rights of all entities owning an interest in the coalbed methane resource.\textsuperscript{80} If the states affected by EPACT do not develop a mechanism for coalbed methane development, they will be subject to the provisions of EPACT, unless they opt out of the program.\textsuperscript{81} Like the Virginia statutes, if the holders of potential competing interests in the coalbed methane cannot reach a voluntary exploration agreement, EPACT provides a "forced pooling" arrangement. EPACT balances the potentially competing mineral estate concerns by providing for the establishment of coalbed methane production wells, while protecting coal seams and preserving coal mine safety.

With the emergence of coalbed methane as one of our nation's newest and most promising energy sources\textsuperscript{82} and the passage of EPACT, it is important to review where we have been (the history) and where we are going (the future).\textsuperscript{83} This

\textsuperscript{72} VA. CODE ANN. §§ 45.1-361.1 to 45.1-361.40 (Michie Supp. 1990).
\textsuperscript{73} See VA. CODE ANN. § 45.1-361.22 (Michie 1994).
\textsuperscript{74} IOGCC AD HOC COALBED METHANE COMM., INTERSTATE OIL AND GAS COMPACT COMM', STATE REGULATION OF COALBED METHANE PRODUCTION: AN 11-STATE STUDY (1994) [hereinafter STATE REGULATION].
\textsuperscript{75} 42 U.S.C. §§ 13,201-13,556 (1994). Louisiana was not included in the Interior Secretary's list of "Affected States" in the coalbed methane provisions — § 13,368. See infra notes 369, 431, 432 and accompanying text.
\textsuperscript{76} STATE REGULATION, supra note 74, at 11.
\textsuperscript{77} Id.
\textsuperscript{78} Alabama does, however, provide for force pooling of non-consenting mineral owners consistent with traditional gas force pooling statutes. This gas force pooling statute is general enough to allow for coalbed methane force pooling. ALA. CODE § 9-17-13 (1994). However, the permitting application process requires an affidavit in which the applicant verifies that it owns or controls 100% of the drilling rights with respect to the oil and/or gas in and under the land comprising the drilling unit. STATE REGULATION, supra note 74, at 17 (citing ALA. RULE 400-1-2-.01).
\textsuperscript{79} See infra parts III. IV.
\textsuperscript{80} 42 U.S.C. § 13,368(d) (1994).
\textsuperscript{81} See infra notes 369, 374, 431 and accompanying text.
\textsuperscript{82} Herbert T. Foster, NATURAL GAS REPORT, REPORT NO. 1969 28 (Mar. 10, 1994).
\textsuperscript{83} The State of Alabama, in its "Coalbed Methane Gas Well Plugging Fund" statutes, notes that
II. Coalbed Methane Case Summaries

A. Decided Cases

The legal framework concerning the ownership of coalbed methane only began to be developed in a cohesive way in the early 1980's. This very recent analysis of the issue is a result of the historical difficulty in commercially exploiting coalbed methane, which also gave rise to the primary challenge in deciding the cases. The courts were being asked to determine whether parties who gave little thought to the ownership of the gas intended to grant or reserve the rights to the gas when they transferred the rights to the coal. Although ownership in any individual case is dependent upon the language of the statute or instrument which grants or reserves the ownership rights asserted, three basic conflicting considerations emerge from the cases. When applied to the numerous different factual circumstances, it becomes readily apparent that the issue is far more complex than the elementary version of "three basic considerations." These three considerations do, however, provide a broad general outline for analysis of the issues. The first consideration is that if the conveyancing or reservation terms are ambiguous, the intent of the parties should be considered (Intent). Intent of the parties also raises the issue of whether coalbed methane production was contemplated at the time the pertinent documents were executed.

The second consideration provides that the word "coal" and its definitions as used in the contracts and statutes are unambiguous, and that if the instruments do not explicitly grant rights to "gas" or "coalbed gas," then such rights were reserved. Also factored into the second consideration are the definitions of the terms "gas" and "minerals" within the context of reservations and grants (Definitions).

The third consideration reasons that removal of coalbed methane is so essentially and inextricably tied to the mining process that the rights to the coalbed methane gas must necessarily be intended to be conveyed when the rights to the coal are conveyed (Production Method). The specific cases discussed below illustrate these three basic considerations in a variety of different factual circumstances.

"coalbed methane gas wells are an important source of natural gas for use in industry and by consumers thereof in Alabama and are becoming increasingly common in Alabama as the technology for such wells advances . . . ." Ala. Code § 9-17-130 (1994).

84. Since EPACT was patterned after Virginia's coalbed methane statutes, a review of the history of Virginia's regulatory orders regarding coalbed methane unit and field rules development was prepared for practitioners interested in an in-depth study and analysis of Virginia's progression in coalbed methane development. The paper, A Review of Virginia Coalbed Methane Field Rule Hearings and Orders, is available as an occasional paper from the Natural Resources Law Center, University of Colorado. (Fleming Law Building, Campus Box 401, Boulder, CO 80309-0401).
1. Intent, Definitions, and Production Method

The decision in the following case was based on a mixture of the intent, definitions, and production method theories:

The Department of the Interior in Ownership of and Right to Extract Coalbed Gas in Federal Coal Deposits\(^{85}\) issued this 1981 opinion which concluded that coalbed methane gas was not reserved by the federal government when it reserved coal under the 1909 and 1910 Acts and that the federal government did reserve coalbed methane gas under the 1914 Act when the government reserved gas.

The Solicitor's Opinion also concluded that federally owned coalbed gas should be exploited under oil and gas rather than coal legal authorities. These conclusions rested on six principles:

1. the 1909 and 1910 Acts and their legislative histories;
2. the 1914 Act and its legislative history;
3. the Mineral Leasing Act;
4. other federal legislation addressing the exploitation of associated minerals;
5. common law and scientific principles; and
6. coal and gas legal authorities in relation to exploration and production of coalbed gas.\(^{85}\)

2. Intent and Production Method

The decisions in the following cases were based on a mixture of the intent and production method theories:

a) United States Steel Corp. v. Hoge

In United States Steel Corp. v. Hoge,\(^{87}\) the Pennsylvania Supreme Court held that the gas which is present in the coal necessarily belongs to the coal owner.

The court was asked to determine the ownership of coalbed methane found in the "Pittsburgh" or "River" vein of coal owned by U.S. Steel, which underlaid certain tracts of land owned by Hoge, Cowan, and Murdock (Hoge). U.S. Steel acquired ownership of the coal through a severance deed dated July 23, 1920. The severance deed granted, in pertinent part, "all the rights and privileges necessary and useful in the mining and removing of said coal, including . . . the right of ventilation."\(^{88}\) Hoge's predecessor in title reserved "the right to drill and operate through said coal for oil and gas without being held liable for any damages."\(^{89}\)

In formulating its conclusion, the court considered the history of gas development, the general nature of coal ownership rights, and the language contained in the severance deed in question. The court held that, as a general rule, such gas as is present in coal must necessarily belong to the coal owner, so long as it remains within his property and subject to his exclusive dominion and control.

\(^{85}\) (M-35935), 38 I.D. 538 (1981).
\(^{86}\) Amoco's Brief in Support, supra note 3, at 57-62.
\(^{87}\) 468 A.2d 1380, 1383 (Pa. 1983).
\(^{88}\) Id. at 1382.
\(^{89}\) Id.
In examining the language in the severance deed, the court gave "effect to all its terms and provisions, and construc[ed] the language in light of conditions existing at the time of its execution." At the time of the severance deed, the court found that commercial exploitation of coalbed gas was very limited and sporadic. Thus, even though the unrestricted term "gas" was used in the reservation clause, the court did not believe the parties intended to reserve all types of gas. The court found "implicit in the reservation of the right to drill through the severed coal seam for 'oil and gas' a recognition of the parties that the gas was that which was generally known to be commercially exploitable." The reservation was limited by the court to the right to drill through the coal seam to reach the oil and gas lying below the coal strata.

b) **NCNB Texas Nat'l Bank v. West**

In **NCNB Texas Nat'l Bank v. West**, the appeal arose from a Mobile County Circuit Court decision in which the trial court held that the language granting the coal contained in the chain of title deeds (the Deeds) vested ownership of the coalbed methane in the coal owners/lessees (the Jim Walters Parties) and not in the gas owners (the Trustee Bank). The Alabama Supreme Court affirmed in part, reversed in part, and remanded the case for further proceedings.

The Alabama Supreme Court's decision in these cases, as in the lower court, hinged on the interpretation of the reservations and the conveyancing language contained in the Deeds. The Deeds granted the following estate: "all the coal, and mining rights . . . ." The also reserved the following estate: "all interest . . . other than the above-described interests in coal and mining rights . . . Grantor specifically reserves all of the oil, gas, petroleum and sulphur . . . ." The Jim Walter Parties maintained that the coalbed gas was granted to them by virtue of the Deeds. Conversely, the Trustee Bank argued that the Deeds reserved the coalbed gas.

The trial court relied heavily upon the legal precedent rendered in **Hoge** and held that the coalbed gas belongs to the coal owner. The trial court held that any minor distinctions in facts or rationale that exist between **Hoge** and the cases at bar are outweighed by the need for continuity and predictability in the law of real property and minerals. Accordingly, the trial court held that the coal owners/lessees owned the coalbed gas.

The Alabama Supreme Court, however, reached in part a different conclusion. The Supreme Court reviewed its analysis in **Vines v. McKenzie Methane Corp.** In **Vines**, the Supreme Court held that a granting clause conveying "all the coal and other minerals," reserving only the surface rights, with no other limiting language,

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90. *Id.* at 1384.
91. *Id.* at 1385.
92. 631 So. 2d 212 (Ala. 1993); *see also* John Land McDavidd, *Summary, Construction of Express Grant of "all coal" in Deed, 9 E. MIN. LAW FOUND. CASE UPDATE 16 (1994).
93. *West*, 631 So. 2d at 216.
94. 631 So. 2d at 216-17.
95. *Id.* at 218.
96. 619 So. 2d 1305 (Ala. 1993).
conveyed the methane gas. The court also referenced its statement in Vines: "[W]e are not inclined to hold that a grantor may never grant separate estates in coal and coalbed methane gas. Rather . . . we hold that an express grant of 'all [the] coal [and other minerals]' necessarily implies the grant of coalbed methane gas, unless the language of the grant itself prevents this construction."98 The Supreme Court found that coal, gas, and methane gas are all separate and severable interests in real property.

In determining the intent of the parties to the Deeds, the Supreme Court relied upon general deed construction cases.99 The Supreme Court agreed with the trial court's analysis that the Deeds were not ambiguous. However, the Supreme Court did not agree that as a matter of law, a reservation of "all gas" did not include coalbed methane. The court, focusing on the "plain meaning" of the words used in the Deeds and basic principles of property law, held:

[the fact that the coalbed methane gas is produced by, and stored within, coal seams does not require the conclusion that a grant of 'all coal' includes coalbed methane gas, nor does it require the conclusion that a reservation of 'all gas' does not include coalbed methane gas . . . . However, careful analysis of the law of real property indicates that the ownership of coalbed gas depends upon its location at the time the gas is recovered or 'captured,' at which time it is reduced to possession.100

The Supreme Court discussed the natural gas ownership theories of: (1) "ownership in place"101 and (2) "nonownership."102 However, the court concluded that the issue in the cases at bar was who holds the right to recover coalbed methane gas. "While the distinction between 'ownership [in place]' and 'non-ownership' of oil and gas may have significant implications in other contexts, it does not affect the extent of extraction rights."103

97. Id. at 1309.
98. West, 631 So. 2d at 221 (citing Vines v. McKenzie Methane Corp., 619 So. 2d 1305, 1309 (Ala. 1993) (second emphasis added)).
100. West, 631 So. 2d at 222-23.
101. The ownership in place theory was defined by the court as "gas and oil in place are minerals and realty, subject to ownership, severance, and sale, while embedded in the sands or rocks beneath the earth's surface, in like manner and to the same extent as is coal or any other solid mineral." Id. at 223 (quoting Stephens County v. Mid-Kansas Oil & Gas Co., 254 S.W. 290, 292 (Tex. 1923)).
102. The court stated that "Alabama determines ownership of oil and gas under the nonownership theory, which recognizes the migratory nature of oil and gas and requires actual possession to establish ownership." Id. at 223 (citing Sun Oil Co. v. Oswell, 62 So. 2d 783, 787 (Ala. 1953); 1 Howard R. Williams & Charles J. Meyers, Oil and Gas Law § 205.1, at 34 (1988); Sarah Kathryn Farnell, Methane Gas Ownership: A Proposed Solution for Alabama, 33 Ala. L. Rev. 521, 523 (1982) (footnote omitted)).
103. West, 631 So. 2d at 223 (quoting Jeff L. Lewin et al., Unlocking the Fire: A Proposal for Judicial or Legislative Determination of the Ownership of Coalbed Methane, 94 W. Va. L. Rev. 563,
The Jim Walter Parties argued that the rule of capture applied only to horizontal migration of oil and natural gas and not to vertical migration of gas between strata. The Jim Walter Parties further contended, and the trial court apparently agreed, that coalbed gas belongs to the owner of the stratum in which the gas originated (i.e. the coal owner), regardless of the later migration of that gas to noncoal strata. The Supreme Court found that the Jim Walter Parties' reasoning that the:

ownership of gas depends upon its point of origin rather than on its point of capture, does not comport with the law governing the ownership and possession of migratory resources such as gas and oil.

Under the rule of capture, gas that migrates from one property to another is subject to recovery and possession by the holder of the gas estate on the property to which the gas migrates.104

The Supreme Court evaluated the conveyance of coal "as a distinct property [which] also includes that bundle of property rights included within the coal, such as the rights incident and necessary to the recovery of the coal."105 Thus, the Supreme Court held that the rule evolved to settle disputes between oil and gas owners on separate tracts of land. The rule therefore applied to vertical drilling on different tracts of land within the same oil or gas field; it was not meant to allow "competition among holders of different mineral interests within a single tract."106

The court held that this rule was also applicable to coalbed methane gas, a migratory mineral resource.

Thus, so long as the coalbed gas is bound within the coal seam in which it originated, the holder of the coal estate has the right to extract the gas and reduce it to possession. However, once the coalbed gas migrates out of the stratum in which it originated, the right to recover the gas belongs to the holder of the gas estate.107

In confirmation of its holding, the Alabama Supreme Court analyzed four other cases dealing with coalbed methane ownership issues.108 The Supreme Court distinguished its decision in Vines from the present case. Vines involved a dispute between the landowner and the lessee of the coal and mineral estate. However, the deeds in Vines did not involve a gas reservation and did not indicate whether the


104. Id. at 224.

105. Id. at 223 (citing Williams v. Gibson, 4 So. 350, 353-54 (Ala. 1888)). The Williams court based its findings on the "rule of capture." See Robert E. Hardwicke, The Rule of Capture and Its Implications as Applied to Oil and Gas, 13 Tex. L. Rev. 391, 393 (1935).

106. West, 631 So. 2d at 224 (quoting Lewin et al., supra note 103, at 619 n.256).

107. Id. (footnote omitted).

coal owner had rights to coalbed methane, any other gas, or the right to produce and market methane gas. Thus, the court's rulings in *Vines* did not address whether a reservation of gas would include coalbed methane.\(^{109}\)

The court held that *Hoge* was distinguishable from the facts in the cases at bar. In *Hoge*, U.S. Steel had owned the rights to "all the coal" and "all the rights . . . necessary and useful in the mining and removing of said coal, including . . . the right of ventilation."\(^{110}\) Hoge had "reserved the right to drill and operate through said coal for oil and gas . . ."\(^{111}\) The Alabama Supreme Court stated that because the *Hoge* court was compelled to find the parties' intent through interpretation of the facts and circumstances existing when they executed the deed, the rationale of *Hoge* was distinguishable.\(^{112}\) The court also relied upon Justice Flaherty's dissenting opinion in *Hoge* in support of its conclusions. Justice Flaherty stated:

> Given their awareness of the presence of coalbed gas in the stratum, the earlier described similarities between coalbed gas and what has commonly been referred to as 'natural gas', and the fact that the unrestricted term 'gas' was employed in the reservation clause, we believe the plain meaning of the term 'gas' would be too far subverted were we to exclude coalbed gas as a recoverable gas.\(^{113}\)

The *Rayburn* and *Carbon County* cases were likewise distinguishable. In *Rayburn*, the court declined to consider whether methane gas was included in the term "gas" or was severed with the mineral coal.\(^{114}\) Instead, the *Rayburn* court relied upon the following reservation language in determining that coalbed methane gas was included in the coal estate:

> The reservation of oil and gas exploration 'shall be subject to the requirement that all coal seams located in said lands penetrated in such exploration or drilling operations shall be encased or grouted off . . .'.

> . . . .

> The clearly expressed intention is that the methane in the coal bed not be available to any well drilled by the grantors who reserved the 'oil and gas' or to their assigns.\(^{115}\)

Therefore, the *Rayburn* court did not address the issue of whether coalbed methane belongs to the holder of coal rights or to the holder of gas rights without other documents.

\(^{109}\) *West*, 631 So. 2d at 225.

\(^{110}\) *Id.*

\(^{111}\) *Id.*

\(^{112}\) *West*, 631 So. 2d at 226.

\(^{113}\) *Id.* (citing *Hoge*, 468 A.2d at 1389 (Flaherty, J., dissenting)).

\(^{114}\) *Rayburn*, supra note 108 at *5.

In *Carbon County*, the issue involved a conveyance of coal rights, without a reservation of gas. The *Carbon County* court held that, as a matter of law, the rights to the coalbed methane gas could not be separated from the coal rights.\(^\text{116}\) The court treated the coal operator's right to ventilate methane gas as if it were an absolute right of ownership. Thus, although a later oil and gas deed expressly purported to convey coalbed methane gas, the court held that the oil and gas owner did not have the right to convey the coalbed methane gas.\(^\text{117}\)

The *Carbon County* court relied heavily on the fact that methane gas must be vented and reduced to safe levels before coal mining can occur. The court also relied upon the common law principle that a grant of coal rights is presumed to grant whatever is essential to its use. In *Hoge*, the court held that "the owner of the coal necessarily owns the gas found therein . . ."\(^\text{118}\) The *Carbon County* court found that this proposition was consistent with Montana law.\(^\text{119}\)

The Alabama Supreme Court, however, disagreed with the *Carbon County* case's holding regarding venting of coalbed methane gas. In *West*, the Alabama Supreme Court found that coalbed methane was a separate and severable interest from the coal and from the oil and gas estates. In addition, the Alabama Supreme Court also distinguished the *Carbon County* case from its holding in *West* by rationalizing that the ownership of *coalbed methane gas which migrates from the coal seams* (versus coalbed methane gas within the coal seam) was not addressed in *Carbon County*.\(^\text{120}\)

As to the venting of coalbed gas for mining purposes, the Alabama Supreme Court held, and the Trustee Bank agreed, that "[t]o the extent that ventilation is required by law, the coal owner will not be liable to the owner of the gas rights for any waste of methane gas that occurs during ventilation."\(^\text{121}\) The court held that the Trustee Bank had no interest in coalbed gas recovered from horizontal or vertical wells drilled directly into coalbeds before the coal is mined. The Trustee Bank does, however, have an interest in coalbed methane gas that migrates out of the coal seams, such as gas collected within the gob zone.

Thus, the court held that:

> absent a clear showing to the contrary, the reservation of all gas includes the right to coalbed methane gas that migrates into other strata from out of the source coal beds where it formed. . . . [b]ased on the facts and circumstances of each case, and absent a clear showing . . . to the contrary, the reservation of coalbed methane gas does not include coalbed gas contained within its source coal seam, and that the holder of the coal estate has the right to recover in situ such gas as may be found within the coal seam. However, once that gas escapes unrecovered from the coal and migrates into other strata, then the holder of the

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\(^{116}\) *Id.* at 227.

\(^{117}\) *Id.*

\(^{118}\) *Hoge*, 968 A.2d at 1383.

\(^{119}\) *Carbon Co.*, DV-190-120 at 11. (See *supra* note 108.)

\(^{120}\) *West*, 631 So. 2d at 227.

\(^{121}\) *Id.* at 229.
gas estate has the right to reduce to possession the coalbed methane gas from the other strata. If the coal owner captures and sells gob gasses that have migrated into other strata, the gas owners are entitled to share in any profits on such sales, after taking into account the cost borne by the coal owner in capturing and marketing the gas.\textsuperscript{122}

The Alabama Supreme Court affirmed the portion of the trial court's holding that the Jim Walter Parties "have the exclusive right to produce and own coalbed methane gas from horizontal boreholes and vertical degasification wells drilled directly into the source coal seam."\textsuperscript{123} The Supreme Court, however, reversed the trial court's holding regarding the right to recover coalbed methane from the gob area above the source coalbed and, instead, held that the Trustee Bank "has" the exclusive right to produce and own all the coalbed methane gas that has been, or that will be, produced from gob wells . . . ."\textsuperscript{124} The case was remanded to the trial court for further proceedings regarding the determination of factual and legal issues.

Justice Maddox, however, wrote a dissenting opinion. He interpreted the deeds at issue as ambiguous and, therefore, determined that the rules of deed construction set forth in \textit{Nettles v. Lichtman}\textsuperscript{125} and \textit{Williams v. Johns-Carroll Lumber Co.}\textsuperscript{126} were applicable. Justice Maddox did not believe that the parties to the Deeds contemplated coalbed methane development at the time the deeds were executed.

He reasoned: "Why would a party retain the right to something which is only a waste product with well-known dangerous propensities? . . . It strains credulity to think that the grantor intended to reserve the right to extract a valueless waste product with the attendant potential responsibility for damages resulting from its dangerous nature."\textsuperscript{127} Although the definition of "gas," included in the oil and gas statutes in effect at the time, was broad enough to include coalbed methane, Justice Maddox also noted that such a conclusion was probably not the intention of the legislature.\textsuperscript{128} Justice Maddox was unable to distinguish the \textit{Vines} and \textit{Hoge} cases from the case at bar and would have, therefore, applied the holdings in these cases (\textit{Vines} and \textit{Hoge}) to the present case.\textsuperscript{129}

\textbf{3. Definitions and Production Method}

The decision in the following case was based on a mixture of the definitions and production method theories:

The court in \textit{Carbon County v. Baird}\textsuperscript{130} held that the conveyance of "coal and

\begin{footnotesize}
122. \textit{Id.} On December 10, 1993, the Alabama Supreme Court overruled an application for rehearing. The court, however, modified its October 8, 1993 opinion by adding the final sentence of the above-referenced quote.
123. \textit{Id.}
124. \textit{Id.}
125. 152 So. 450, 452 (Ala. 1934).
126. 192 So. 278, 230 (Ala. 1939).
127. \textit{Id.} at 232 (Maddox, J., dissenting) (quoting \textit{Vines} v. McKenzie Methane Corp., 619 So. 2d 1305, 1308 (Ala. 1993)).
128. \textit{Id.} at 230-31 (referencing \textit{ALA. CODE § 9-17-1}).
129. \textit{Id.} at 232.
\end{footnotesize}
coal rights with the right of ingress and egress to mine and remove the same" included ownership of the coalbed methane gas contained in the coal as well as the exclusive right to develop such gas.

In this action to quiet title to certain fee lands in Carbon County, Montana, defendants raised the issue of coalbed gas ownership, underlying certain lands subject to the quiet title action. Carbon County acquired, through tax deed proceedings, the ownership of the entire mineral estate of the property in question. In 1974, Carbon County entered into a contract of sale agreeing to sell to Norman H. Kmoch "all coal and coal rights with the right of ingress and egress to mine and remove the same." Kmoch subsequently assigned his interest in the contract of sale to Red Lodge-Bear Creek Coal Partners, a limited partnership (the Partnership). The Partnership paid the real property taxes levied against the "coal and coal rights." In conjunction with other parties, the Partnership expended large sums of money developing the Brophy No. 2 mine. In 1984, Carbon County conveyed "all coal and coal rights with the right of ingress and egress to mine and remove same" to the Partnership. Thereafter, Union Reserve Coal Company (Union) became the owner of the Partnership's interest.

In 1991, Florentine Exploration and Production, Inc. (Florentine) obtained an oil and gas lease on the subject property from Carbon County (the Lease). The Lease, a standard Montana industry form, granted to Florentine "the exclusive right for the purpose of mining, exploring by geophysical or other methods, and operating for and producing therefrom oil and all gas, including coal seam methane of whatsoever nature or kind . . . ." In a Lease exhibit, Florentine acknowledged that Carbon County did not warrant title to the leasehold estate and covenanted to hold Carbon County harmless, should the title granted be questioned.

Florentine attempted to secure a protective coal seam methane gas lease from Union. Prior to receiving the protective lease, however, Florentine drilled the AETNA 7-19-18-21 well in the vicinity of the Brophy No. 2 mine. Thereafter, Union rejected the protective lease offer and stated that the drilling would damage Union's coal and would render long wall mining useless on portions of its coal.

Subsequently, Carbon County instituted the case at bar, and Florentine was allowed to intervene. Florentine sought to quiet title to the coal seam methane gas as conveyed to it pursuant to the Lease.

Coal seam methane was described by the court in the findings of fact as a product of the coalification process. The district court thus held that coal is both the source of and the reservoir of the methane. The combination of methane gas and coal was noted by the court to be the cause of frequent and tragic explosions in coal mines. In addition, the district court noted that it was important for the

131. Carbon County, No. DV 90-120, slip op. at 4 (Findings of Fact).
132. Id.
133. Id. at 5.
134. Id.
135. Id. at 7.
136. Id. at 8.
coal mine operator to be able to mine the coal in the most economical and effective method.137 Thus, it is necessary that the coal operator have control over the drilling of wells into the coal seam in order to minimize disruptions to the mining process caused by the drilling and completion of wells in the coalbed.138

The decision in the case turned on the interpretation of the language granting the "coal and coal rights." The district court relied upon the legal precedents rendered in United States Steel Corp. v. Hoge,139 Rayburn v. USX Corp.,140 and Pinnacle Petroleum Co. v. Jim Walter Resources, Inc.141 In each of these cases, the courts found in favor of the coal owner. The district court noted that methane gas is essential to the mining of coal. Before the coal can be safely mined, the coal operator must remove the methane.142 These facts and legal principles, combined with the fact that coal is the source of and the reservoir of the coal seam methane gas, led the Montana court to hold that the conveyance of "coal and coal rights with the right of ingress and egress to mine and remove the same"143 by Carbon County included "coal seam methane gas as a product of the coalification process, and included with it the ownership of the coal methane gas contained in the coal, as well as the exclusive right to develop or dispose of and [sic] coal seam methane."144 Accordingly, the court held that Florentine trespassed upon the coal owned by Union and was ordered to remove the casing it installed in the coal and plug its AETNA 7-19-18-21 well. Union was awarded nominal damages in the amount of one dollar. Thus, Florentine's complaint requesting that the court declare it the owner of the coal seam methane gas and its counterclaim that it had acquired the right to produce coal seam methane gas under the Lease were dismissed.145

The district court's decision was appealed to the Montana Supreme Court by Union Reserve Coal Company.146 The main issue before the court was whether coal seam methane gas was a constituent part of the coal estate granted to Union.147 The Montana Supreme Court closely examined the plain meaning of "coal" and "gas" and concluded that coal and gas are mutually exclusive terms.148 Union's coal rights only applied to the solid rock substance (minable coal) that is mined through strip or underground mining, as stated in the Montana state code.149 The court opined that "[s]ince coal seam methane gas is a fluid hydrocarbon and is produced at the wellhead, it falls within the statutory definition of gas and again it

137. Id. at 10.
138. Id.
139. 468 A.2d 1380 (Fa. 1983).
142. Memorandum at 23, Carbon County (No. DV 90-120).
143. Carbon County, No. DV 90-120, slip op. at 4 (Final Judgment and Decree).
144. Id. at 5-6.
145. Id. at 7.
147. Id. at 686.
148. Id.
149. MONT. CODE ANN. § 82-4-203(17) (1983).
is distinguishable from coal, a solid hydrocarbon.\textsuperscript{150} It also noted that coal seam methane gas is potentially severable from the coal estate.\textsuperscript{151} In coming to its conclusion, the court distinguished this case from the Pennsylvania court's rationale in \textit{Hoge} by emphasizing that this court did not consider the plain language of the terms and the contracting parties' intentions.\textsuperscript{152} In \textit{Hoge}, the transfer of coal rights took place in the 1920s when coaled methane gas was considered a waste product; therefore, the parties to that contract could not have intended to convey the gas with the coal.\textsuperscript{153} But in \textit{Carbon County}, the contract with Union Reserve was dated 1984, a time when each party knew that the gas had value. Yet, the parties did not contract for any of the "gas" rights but only for "coal" rights.\textsuperscript{154}

The \textit{Carbon County} supreme court cited the Alabama Supreme Court's statement in \textit{NCNB v. West} that, "[w]e can find no scientific or legal basis to support the proposition that coaled methane gas should be treated as a resource separate and distinct from other natural gas, or from any other gas."\textsuperscript{155} The \textit{Carbon County} supreme court distinguished its final result from \textit{West} by noting that Alabama follows the nonownership theory of oil and gas, while Montana is an ownership-in-place state.\textsuperscript{156} In Montana, as long as oil and gas remain in the ground they are part of the realty.\textsuperscript{157}

The court also cited the district court ruling in \textit{Southern Ute v. Amoco},\textsuperscript{158} and its determination that the reservation of coal to the tribe did not include a reservation of the coaled methane gas.\textsuperscript{159}

The \textit{Carbon County} supreme court reversed the district court and ruled that the district court had erred awarding Union Reserve the right to produce the coaled methane gas from the coalbeds.\textsuperscript{160} It emphasized that Montana is an ownership-in-place state with regard to oil, gas, and other minerals.\textsuperscript{161} The court stated that "Union Reserve only acquired the coal and the incidental right to mine and remove the coal."\textsuperscript{162} It found that Florentine had been given the right to extract the coal seam methane gas, and that Union Reserve could extract and capture the gas only for purposes of safety incidental to its coal mining operations.\textsuperscript{163} Accordingly, it concluded that coaled methane gas "is separate from coal and is not a constituent part of the coal estate."\textsuperscript{164

\begin{thebibliography}{9}
\bibitem{150} \textit{Carbon County}, 898 P.2d at 687.
\bibitem{151} \textit{Id.}
\bibitem{152} \textit{Id.} at 684.
\bibitem{153} \textit{Id.}
\bibitem{154} \textit{Id.}
\bibitem{155} \textit{West}, 631 So. 2d at 222-23.
\bibitem{156} \textit{Carbon County}, 898 P.2d at 685.
\bibitem{157} \textit{Id.} at 684.
\bibitem{158} 874 F. Supp 1142 (D.Colo. 1995)
\bibitem{159} \textit{Id.} at 1152-53.
\bibitem{160} \textit{Carbon County}, 898 P.2d at 687.
\bibitem{161} \textit{Id.}
\bibitem{162} \textit{Id.} at 688.
\bibitem{163} \textit{Id.} at 689.
\bibitem{164} \textit{Id.} at 688.
\end{thebibliography}
4. Intent

The decision in the following case was based on the intent theory:

In *Rayburn v. USX Corp.*, 165 the United States District Court for the Northern District of Alabama held that title to the coalbed methane was vested in the coal owner.

The court's holding in *Rayburn* was "based on the language of the deed in question and is not a declaration that in all instruments the interpretation will be the same." 166 The pertinent language in the 1960 severance deed on which the court based its decision is as follows:

Grantors herein covenant and agree that any right to explore for or produce oil and gas, or to drill wells for the exploration for or production of oil and gas in the above-described lands *shall be subject to the requirement that all coal seams located in said lands penetrated in such exploration or drilling operations shall be encased or grouted off*. . . . 167

The court found this language to be clear and unambiguous. The clearly expressed intent of the parties was that the methane in the coalbed not be available to any well drilled by oil and gas lessees or assigns. 168

5. Production Method

The decision in the following case was based on the production method theory:

In *Vines v. McKenzie Methane Corp.*, 169 the Supreme Court of Alabama held that the ownership of methane gas, with the accompanying rights to develop and produce it, was included in the coal and mineral conveyances.

The conveyancing language contained in two pre-1910 mineral deeds was at issue. The mineral deeds (the Deeds) conveyed the following estates: (1) "all of the coal, iron ore, and other minerals"; 170 and (2) "all the coal and other minerals." 171 With the intention of drilling coalbed methane wells (independent of mining operations), McKenzie Methane Corporation (McKenzie) obtained coalbed methane leases (the Leases) from the successors in interest to the grantees in the Deeds. The grantors' successors in interest (the Grantors) initiated two separate cases which were consolidated on appeal. The Grantors sought to prevent drilling operations on the property basing their arguments on the fact that coalbed methane was not considered valuable at the time the Deeds were executed. Thus, title to the coalbed

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167. *Id.* at *2* (emphasis added).
168. *Id.* at *8-*9.
169. 619 So. 2d 1305 (Ala. 1993).
170. *Vines*, 619 So. 2d at 1306.
171. *Id.*
methane did not pass under the Deeds, and, therefore, the Leases were ineffective. Both trial courts granted summary judgment in favor of McKenzie.

The Alabama Supreme Court noted that coalbed methane is produced from coal seams and is formed during and as a by-product of the coalification process. The court noted that although some of the methane migrates out of the coal, a large amount remains behind and is physically bound to the coal. Because coalbed methane is liberated during mining and poses a significant hazard to the miners, it must be removed. The following methods of coalbed methane removal were noted by the court: (1) the use of ventilation fans; (2) the drilling of "vertical" and "horizontal" wells prior to mining; or (3) the drilling of "gob" wells immediately after active mining. The court found that the existence of coalbed methane in commercial quantities was recognized in Alabama as early as the 1920's. Coalbed methane was not, however, a significant industry until the 1980's.

In reaching its decision, the court relied upon the legal precedents rendered in United States Steel Corp. v. Hoge, Rayburn v. USX Corp., and Carbon County v. Baird. In each of these cases, the courts held that the coal estate owner was also the owner of the coalbed methane gas.

The Alabama Supreme Court held that the evidence in the case at bar confirmed that the processes for coalbed methane gas drilling and coal mining are inextricably entwined. The methods of commercial drilling were found to be somewhat different from the methods used to drain the gas for safety purposes. The drilling process, however, was not by the court as an intrusion upon coal mining. As early as 1888, Alabama courts held that the one who is granted an exclusive right to mine coal has the right of possession so far as is reasonably necessary to carry on his mining operations. Thus, the court, in keeping with earlier Alabama law construing mineral leases, held that "an express grant of 'all coal' necessarily implies the grant of coalbed methane gas, unless the language of the grant itself prevents this construction."

The court found that neither of the Deeds in question contained any limiting language, and, in fact, the Deeds clearly reserved only the surface rights. Accordingly, the court held that the ownership of methane gas, with the accompanying rights to drill for it, was necessarily included in the mineral estates granted in the Deeds and affirmed the summary judgments for McKenzie.

172. Id. at 1307.
173. Id.
177. Vines, 619 So. 2d at 1308.
179. Vines, 619 So. 2d at 1308-09. See generally Carter Oil Co. v. Blair, 57 So. 2d 64 (Ala. 1952).
180. Vines, 619 So. 2d at 1309.
Two of the justices in the above-referenced case rendered a dissenting opinion, contending that the Deeds were ambiguous. Thus, the dissent concluded that the trial courts erred in holding, as a matter of law, that the parties to the Deeds could have contemplated the conveyance of coalbed methane gas which was of no commercial value at the time of the Deeds. The date of the conveyance and the minerals commonly recognized at the time of the conveyance were determinative of the issue. This interpretation was based on several cases.

6. Definitions

The decisions in the following cases were based on the definitions theory:

a) Rights to Coalbed Methane Under An Oil & Gas Lease for Lands In the Jicarilla Apache Reservation

The Department of the Interior, in Rights to Coalbed Methane Under An Oil & Gas Lease for Lands In the Jicarilla Apache Reservation, rendered a decision addressing the question of whether coalbed gas was granted under oil and gas leases issued for Indian lands. The Department concluded that coalbed gas was granted under these leases. First, the Department determined that coalbed gas is "natural gas," noting that this conclusion was not altered by the physical status of coalbed gas and recognizing that many types of gas take gaseous or liquid forms in reservoir rock. Second, the Department concluded that the term "oil and gas deposit" as used in Indian leases includes coalbed gas. Third, the Department concluded that coalbed gas was conveyed under Indian oil and gas leases irrespective of whether the parties had a specific intent to convey that resource. Fourth, the Department reached these conclusions in reliance upon the 1981 Solicitor's Opinion.

b) Cantley v. Hubbard

The Alabama Supreme Court in Cantley v. Hubbard interpreted a 1929 warranty deed in an action involving conflicting claims to production royalties from three methane gas wells in a coal degasification field. In a 1924 patent, the United States reserved all the coal underlying the land in question. In a 1929 warranty deed, the grantor (a successor in interest to the United States) reserved "[a]ll mineral reserved to the United States." On a motion for summary judgment, the court

181. Id.
182. Id.; see United States v. Harris, 115 F.2d 343 (5th Cir. 1940); Exxon Corp. v. Waite, 564 So. 2d 941 (Ala. 1990); Western Coal & Mining Co. v. Middleton, 362 F.2d 48 (8th Cir. 1966) (quoting Ahne v. Reinhart & Donovan Co., 401 S.W.2d 568 (Ark. 1966)); W.S. Newell, Inc. v. Randall, 373 So. 2d 1068 (Ala. 1979).
183. 623 So. 2d 1070 (Ala. 1993); see also John C. Robertson, Summary, 9 Ownership of Coalbed Methane Gas Analyzed, E. Min. L. Found. Case Update 16 (1994).
184. Cantley, 623 So. 2d at 1080.
held that this language reserved all the minerals that were owned by the grantor at that time, i.e., all the minerals less the coal that had been reserved by the United States. The portion of the reservation "to the United States" was interpreted by the court as "merely an erroneous recitation of the prior reservation." The court held that all mineral rights, other than coal, were clearly reserved by the grantor of the 1929 warranty deed. Thus, by implication, the coalbed methane was reserved by the 1929 warranty deed's grantor.

The Cantley court referred to Vines v. McKenzie Methane Corp. in a footnote and stated that it made no judgment as to the possible interests held by other parties because the question of whether a lease of coal rights included the right to explore for and produce coalbed methane was not raised.

Justice Maddox entered a dissenting opinion stating that the reservation in the 1929 warranty deed contained a "latent ambiguity" and thus concluded that summary judgment was inappropriate.

B. Pending Cases

Other issues remain to be resolved in coalbed methane cases. A number of pending cases may help clarify all outstanding issues. One case involves the ownership of coalbed methane extracted from gob wells which produce methane only after coal is mined in a specific area.


In Pinnacle Petroleum Co. v. Jim Walter Resources, Inc., Pinnacle Petroleum Company (Pinnacle) derived its interest in the oil and gas underlying the property in dispute through a printed form oil and gas lease dated August 31, 1978, from E.L. Hendrix and wife to Alabama Basic Land Enterprises, Inc. Typewritten onto the first page of the Hendrix lease was the statement: "[t]his lease does not include coal."

Jim Walter Resources, Inc. (Jim Walter) derived its interest in the coal through a lease dated December 6, 1984, from The First National Bank of Tuscaloosa, Trustee, to the United States Pipe and Foundry Company. The coal lease referenced the Hendrix oil and gas lease and indicated that the coal lessee could remove and dispose of the coal seam gas subject to any right of the oil and gas lessee or its assignees. The coal lease also made specific provisions for the removal of coal seam gas and royalty payments should the coal seam gas be sold.

190. Id. at 1079.
191. 619 So. 2d 1305 (Ala. 1993).
192. Id. at 1080.
193. Id. at 1082.
196. Id.
197. Id.
One of Pinnacle's arguments on its motion for partial summary judgment was that its gas lease covered coalbed methane because methane is technically a "gas." Another argument was based on the legal theory that after extraction of the coal is completed, the mined area reverts to the grantor. Because a gob well produces methane only after mining occurs in that area, this method was a post mining method of extraction, and the methane should revert to the coal lessor.

Jim Walter relied primarily on the *Hoge* and *Rayburn* decisions in arguing that the coalbed methane was owned by the coal estate as a result of: (1) the characteristics of coalbed methane; (2) the history of coalbed methane production; (3) the acknowledged right to remove the coal, including the incidental right to remove the coalbed methane; and (4) the conveyancing instruments, which revealed the intent of the parties as to the coalbed methane ownership and development.

In its July 28, 1989 order, the court held that Jim Walter, as the coal lessee, had the exclusive right to produce coalbed gas from the property that was the subject of the lawsuit. The action remained on the docket to settle factual disputes about whether any of the gas produced by Jim Walters was not coalbed methane.

2. Southern Ute Indian Tribe v. Amoco Production Co.

One of the most interesting pending cases involves the historical relationship between the United States Government and Native Americans. In *Southern Ute Indian Tribe v. Amoco Production Co.*, the Southern Ute Indian Tribe (the Tribe) asserts that it owns the coalbed gas underlying approximately 200,000 acres of land within the Southern Ute Indian Reservation in southwest Colorado (the land). The United States opened the land to non-Indian settlement, in particular to homestead patentees, under the Act of March 3, 1909, and the Coal Lands Act of 1910 (the 1909 and 1910 Acts). The patentees received all surface and mineral rights except "coal," which was reserved to the federal government. The federal government restored the coal estate to tribal ownership in 1938. The Tribe claims that the coal estate includes coalbed gas.

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198. *Id.*


201. *Id.*


203. *Id.* Litigation in the case has continued in certain bankruptcy proceedings. The court granted Pinnacle's motion to sever claims against Jim Walter to allow Pinnacle to proceed against the solvent defendants. *Id.*


a) Background: Historical Treatment of Coal

The former reservation lands then became available for public entry either under the Homestead Act of 1862,\(^{207}\) which allowed for entry for agricultural purposes, or the Coal Lands Act of 1873\(^ {208}\) and the Mining Law of 1872,\(^ {209}\) which provided for entry for mining purposes. These acts were subject to substantial abuse, however, because entrymen predominately classified their lands as agricultural, which entitled them to ownership of the land in fee without payment. Coal miners or oil and gas explorers were required to pay statutorily mandated amounts for their lands. The Department of the Interior relied on the classification by the entrymen without further investigation, and vast amounts of mineral wealth were conveyed without payment.

In response to this practice, President Theodore Roosevelt ordered the Department of the Interior to withdraw those lands that contained "workable coal" from the entry lands and to suspend the issuance of homestead patents on such lands.\(^ {210}\) This left agricultural homesteaders who had been working coal lands for agricultural purposes in a quandary because they had already invested time and labor in tracts which were no longer available for homestead patents. The congressional response was the Act of March 3, 1909\(^ {211}\) and the Coal Lands Act of 1910\(^ {212}\) (the 1909 and 1910 Acts). Under these Acts, homestead patentees were granted all surface and mineral rights except "coal," which was reserved to the federal government. Approximately 1.47 million acres of the withdrawn acreage, located near Durango, Colorado, included the acreage in the *Southern Ute* case. Many homesteaders were issued patents subject only to the United States' coal reservation. The nonfederal defendants in this case claim their respective rights, titles, and interests as successors in interest to these patentees.\(^ {213}\)

In 1934, the federal policy towards tribal ownership was reversed with the passage of the Indian Reorganization Act (the IRA).\(^ {214}\) The IRA authorized restoring to tribal ownership any surplus Indian reservation lands. Pursuant to the IRA, the federal government conveyed the reserved rights to approximately 200,000 acres of coal. The coal had been reserved to the United States in patents issued to non-Indian entrymen under the 1909 and 1910 Acts.

\(^{207}\) Ch. 75, 12 Stat. 392.

\(^{208}\) Ch. 279, 17 Stat. 607.

\(^{209}\) Act of May 10, 1872, ch. 152, 17 Stat. 91.

\(^{210}\) 41 CONG. REC. 2614-15, 2806-08 (1907).

\(^{211}\) Ch. 270, 35 Stat. 844 (codified at 30 U.S.C. § 81 (1994)).

\(^{212}\) Ch. 318, 36 Stat. 583 (codified at 30 U.S.C. §§ 83-85 (1994)).

\(^{213}\) *Southern Ute*, 874 F. Supp. at 1151.

b) The Parties and Their Positions

The defendants are comprised of an estimated 20,000 individuals (mineral owner defendants) who own the oil and gas estates underlying the land, approximately twenty oil and gas companies (oil company defendants) that have extracted coalbed gas under oil and gas leases issued by mineral owner defendants, and federal government defendants who have not opposed the extraction of the coalbed gas by the defendants.

The relief requested by the Tribe includes, but is not limited to, an order quieting title in the Tribe to: a beneficial interest in the coalbed gas; an award of damages for the value of the extracted coalbed gas; an order granting the Tribe ownership of all facilities owned by oil company defendants and installed for the purpose of extracting the coalbed gas; and a declaratory judgment that federal defendants have a fiduciary duty to hold the coalbed gas in trust for the Tribe.215

The primary issue in this case is whether coalbed gas is included in the "coal" reserved by the federal government in the 1909 and 1910 Acts. Since 1981, the Department of the Interior has taken the position that coalbed gas is not included.216

Defendants moved for summary judgment. They asserted that the legislative history of the 1909 and 1910 Acts compelled the conclusion that Congress intended to reserve only solid mineral coal and not coalbed gas.217

Defendants also relied on the legislative history and substantive provisions of: (1) the 1914 Act,218 by which the United States reserved gas, including coalbed gas, to itself; (2) the Stock-Raising Homestead Act of 1916,219 by which, for the first time, the United States reserved in itself all minerals and not just the specifically enumerated minerals; (3) the Mineral Leasing Act of 1920,220 which addressed gas and coal separately, provided different procedures for their exploration and development, and narrowly defined "coal" without any reference to gases associated with coal; and (4) the Uraniferous Lignite Act of 1955,221 which recognized that patentees under the 1909 and 1910 Acts own, and have the right to develop, uranium found in association with coal.222 Defendants also cited the extensive and

221. Id. § 541-541(i).
separate regulatory schemes under federal law for coal and gas and the different practical considerations governing the development of coal and coalbed gas resources.

Defendants' next argument was based upon the 1981 Solicitor's Opinion that the United States did not reserve coalbed gas under the 1909 and 1910 Acts. Defendants contended that the court was bound by the Department of the Interior's construction of the 1909 and 1910 Acts because the construction was not unreasonable.223

Defendants also asserted that they were entitled to summary judgment because the only claim against the United States was time barred and the United States was an indispensable party to the action.224 The Tribe's claim of breach of fiduciary duty against the United States was governed by the six-year statute of limitations in 28 U.S.C. § 2401(a). Defendants asserted that the claim accrued not later than July 22, 1985, when the Tribe admitted it received a copy of the 1981 Solicitor's Opinion and that the claim was time-barred because the Tribe did not bring this action until December 31, 1991, more than six years and five months after accrual.225 The United States was claimed to be an indispensable party under the Federal Rules of Civil Procedure226 because resolution of the Tribe's claim will affect the rights and duties of the United States and will determine whether the United States owns the coalbed gas underlying about 16.2 million acres of land throughout the United States, not just the 200,000 acres involved in this case.227

Finally, defendants asserted that the Tribe's claims were barred by the doctrine of laches, as well as by the doctrines of acquiescence and estoppel. The Tribe brought this action more than ten years after the 1981 Solicitor's Opinion was issued and more than six years after the Tribe had received a copy of the Opinion. Defendants alleged that the Tribe did not assert its claim of ownership promptly, but instead encouraged coalbed gas development on the Reservation.228 The Tribe voluntarily entered into communitization agreements whereby Tribal and private lands were pooled to produce coalbed gas and received and retained royalties for coalbed gas produced pursuant to Tribal oil and gas leases. Moreover, the Tribe entered into rights-of-way and water disposal agreements, which facilitated the development of coalbed gas, and sponsored a forum on coalbed gas development. The Tribe delayed bringing its action until after virtually all land on the Reservation had been leased for oil and gas development, oil company defendants had incurred enormous costs and taken substantial risks, and coalbed gas had been proven to be a valuable resource.229

223. Id. at 94-96.
224. Id. at 132-37.
225. Id.
226. Id. at 137 (citing Fed. R. Civ. P. 19).
227. Id. at 140.
228. Id. 143-46.
229. Id.
c) The District Court's Decision

On September 13, 1994, the United States District Court ruled on the summary judgment motions filed by Amoco and the Tribe. The district court held that under the 1909 and 1910 Acts, the reservation of "coal" did not include coalbed methane. The court found that the plain meaning of the word "coal" was a solid combustible mineral substance as evidenced both by dictionaries of the time and by modern dictionaries. The statute was, therefore, clear on its face and contained no ambiguity. Secondary materials such as legislative history were unnecessary to make the determination of ownership. Nonetheless, the court exhaustively reviewed the legislative history. The court found that the 1909 and 1910 Acts were intended to be only a narrow departure from previous laws which had provided for the issuance of homestead patents in fee. Because all mineral rights had previously been granted, the court held that the 1909 and 1910 Acts included only solid coal and not coalbed gas.

The court based its rulings, in part, on the history of federal coal legislation beginning with the Act of 1880 (the 1880 Act). The 1880 Act terminated tribal ownership in the reservation lands which were opened to non-Indian settlement. In addition, it limited Indian land ownership to a specific amount of land allotted in severalty to individual Indians. The court held that "the central feature of the 1880 Act was the termination of tribal ownership in the reservation lands . . . ." "All lands not allotted in severalty to Individual Indians, then, including the lands in question here, were conveyed by the Utes . . . to become public lands of the United States." The Tribe claimed that the United States' coal reservation in the 1909 and 1910 Acts included the coalbed gas which was restored to the Tribe along with the coal. However, the court held as a matter of law that Congress' coal reservation in the 1909 and 1910 Acts did not reserve coalbed gas. The title to coalbed gas was conveyed by United States patents issued to homesteaders under the 1909 and 1910 Acts. Therefore, the Tribe did not acquire title to the coalbed gas when the United States restored the coal to the Tribe under the IRA.

230. Prior to the district court's ruling, Southern Ute Indian Tribe v. Amoco Prod. Co., 874 F. Supp. 1142 (D. Colo. 1995) (see supra note 204), the case was appealed to the U.S. Court of Appeals for the Tenth Circuit on procedural issues. Southern Ute Indian Tribe v. Amoco Prod. Co., 2 F.3d 1023 (10th Cir. 1993). The appeal regarded the district court's cost allocation order requiring the Tribe to pay 25% of the cost of mineral and land title examinations, from which the Tribe desired to obtain names for class defendant notification purposes. The case was reversed and remanded to the district court for further proceedings.


232. 10 CONG. REC. 2059, 2066 (1880).


236. Id. at 1152.

237. Id.
i) Coal Including Coalbed Gas

The Tribe argued that in the 1909 and 1910 Acts the word "coal" might refer to the rock as well as the gas contained in and around the rock. The court disagreed stating that statutory construction is a question of law. In construing a statute, the primary task is "to give effect to the will of Congress, and where its will has been expressed in reasonably plain terms, that language must ordinarily be regarded as conclusive." Further, the court held that the relevant congressional intent is that existing at the time of a statute's enactment.

When Congress does not specifically define a term, its ordinary meaning is presumed to apply. Thus, the court held that it is appropriate to look at general dictionary and encyclopedia definitions for the ordinary meaning.

The court analyzed the differences between the Act of 1909 and the Act of 1910. The Act of 1909 provided that the reservation patent contained "all coal in said lands . . . ." The Act of 1910 stated that the reservation patent contained "all the coal in the lands so patented . . . ."

The term "coal" was not defined in the 1909 and 1910 Acts. Therefore, the court held that the common ordinary meaning of the word shall apply. The court based its decision upon several definitions of coal. All the definitions reviewed were consistent with the definition of coal throughout the decades. In comparison, the term "gas" was also reviewed by the court. The definitions of gas and coal

244. Id. at 1153.
245. In Southern Ute, 874 F. Supp. at 1152-53, the following definitions of coal were reviewed by the court:

[A] black, or brownish black, solid, combustible substance consisting . . . mainly of carbon. AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE 244 (1889) (emphasis added).


[A] solid, brittle, more or less distinctly stratified, combustible carbonaceous rock, formed by partial to complete decomposition of vegetation . . . ." A DICTIONARY OF MINING, MINERAL, AND RELATED TERMS 222 (1968) (emphasis added).

[A] solid . . . substance varying in color from dark-brown to black, brittle, combustible, and used as a fuel." A GLOSSARY OF THE MINING AND MINERAL INDUSTRY 163 (1920) (emphasis added).
246. In Southern Ute, 874 F. Supp. at 1153, the following are definitions of "gas" were considered by the court:

[A] aeriform fluid supposed to be permanently elastic . . . now applied to any substance when in the elastic or aeriform state." AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE 560 (1889).
are not only identical to the definitions at the time the 1909 and 1910 Acts were enacted, but are also the current definitions.\textsuperscript{247}

According to all definitions, "coal" is defined in narrow, specific terms under which coalbed gas does not qualify. In contrast, "gas" is defined in broad, general terms under which coalbed gas does not qualify.

The court reasoned that Congress did not intend for coalbed gas to be included in the definition of the 1909 and 1910 Acts because: (1) congressional intent must be derived as of the enactment date\textsuperscript{248} and (2) the 1909 and 1910 Acts dealt with coal in a "practical way." Therefore, coal should be applied in its ordinary meaning.\textsuperscript{249}

\textit{ii) Congress' Intention to Reserve Coalbed Gas}

The Tribe argued that Congress intended to reserve coalbed gas, relying on two principles: (1) nothing passes by implication in a public land grant and (2) such grants should be interpreted in favor of the government.\textsuperscript{250} The court held that the Tribe neglected the maxim that "public land grants 'are not to be so construed as to defeat the intent of the legislature, or to withhold what is given either expressly or by necessary or fair implication.'\textsuperscript{251}

The court viewed the legislative history of the 1909 and 1910 Acts and focused on Congress' intent at the time the statutes were enacted. The 1909 and 1910 Acts were passed when coalbed gas was not believed to be a valuable mineral. Instead, it was believed that coalbed gas was only a hazard associated with coal mining.

Committee hearings and debates were conducted on the coal lands legislation which illustrated congressional knowledge about coal. Transcripts show that Congress was aware of coalbed gas and that coalbed gas could be valuable in the future. However, no one ever testified that coalbed gas was a valuable energy resource which should be reserved by the United States in the 1909 and 1910 Acts.

Representative Mondell spoke about the bill when it was being considered by Congress. Mondell never mentioned or referred to coalbed gas\textsuperscript{252} The question was raised: "[w]hy is it necessary to preserve and reserve ... the coal and not at the same time reserve ... \textit{other fuels such as gas and oil}?\textsuperscript{253} Mr. Mondell answered "oil and gas present much greater difficulties [than coal], when we propose to separate the surface from the mineral ... ."\textsuperscript{254}

\textquotedblleft[A]n aeriform fluid, having neither independent shape nor volume, but tending to expand indefinitely." \textsc{Webster's New International Dictionary of the English Language} 892 (1902).

\textquoteleft[A] fluid (as air) that has neither independent shape nor volume but tends to expand indefinitely ... .\text"\textsc{Webster's Third New International Dictionary} 937 (1986).

\textsuperscript{247} \textit{Southern Ute}, 874 F. Supp. at 1153.


\textsuperscript{249} \textit{Southern Ute}, 874 F. Supp. at 1154.

\textsuperscript{250} \textit{Id.} at 1159 (citing \textit{Andrus v. Charlestone Stone Prods. Co.}, 436 U.S. 604, 617 (1978)).

\textsuperscript{251} \textit{Id.} (citing \textit{United States v. Denver & Rio Grand Ry. Co.}, 150 U.S. 1, 14 (1893); \textit{Leo Sheep Co. v. United States}, 440 U.S. 668, 682-83 (1979)).

\textsuperscript{252} \textit{Id.} at 1156 (citing \textit{45 Cong. Rec.: 2502-04} (1909)).

\textsuperscript{253} \textit{Id.} at 1157 (citing \textit{Cong. Rec.: 6044} (1910) (emphasis added)).

\textsuperscript{254} \textit{Id.}
The court concluded that these congressional debates indicated that Congress intended for the 1909 and 1910 Acts to reserve only the solid rock. The overriding objective for Congress was to insure an adequate reserve for the nation's primary energy source — coal.255

The 1909 and 1910 Acts were issued as unlimited patents to reserve a single specific mineral — coal. The legislative reservation of minerals in the Act of 1914256 demonstrated a much broader broad scope of mineral reservation by listing each mineral: "phosphate, nitrate, potash, oil, gas, or asphaltic minerals."257

iii) Statutory Construction Rules for Indian Laws

The Tribe argued that when doubt and ambiguity exists in federal Indian statutes or regulations, the general rule is to resolve these matters in favor of the tribes. The court held that the 1909 and 1910 Acts are not federal Indian laws. Instead, they are public land laws. Although the Acts may affect Indian lands, the Acts were not passed for the specific benefit of tribes. Therefore, the court would not apply the rule in this case.258

iv) 1981 Solicitor General's Opinion

The court reviewed the effect of the 1981 Solicitor's Opinion which addressed the issue of ownership of coalbed gas in land where the minerals were reserved to the United States.259 The 1981 Solicitor's Opinion did not address minerals on Tribal lands but concluded that the United States coal reservation did not include the coalbed gas.260

The court found that the Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.261 case controlled the analysis for determining the weight given to the 1981 Solicitor General's Opinion:

First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. . . . Rather, if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute.262

The agency's decision is given controlling weight unless it is "arbitrary, capricious, or manifestly contrary to the statute."263 The 1909 and 1910 Acts do

255. Id. at 1158.
256. Id. (citing 30 U.S.C. § 121 (1914)).
257. Id. (citing 30 U.S.C. § 121 (1914) (emphasis added)).
258. Id. at 1159.
259. Id.
260. Id. (citing 1981 Solicitor's Opinion, supra note 216, at 540).
262. Id. at 842-43 (citations omitted).
263. Southern Ute, 874 F. Supp. at 1159.
not mention coalbed gas or define "coal." Therefore, the issue for the district court was whether the 1981 Solicitor's Opinion was based on a permissible construction of these statutes. The court held that it was so based.264

d) Appeal to the Tenth Circuit

The Southern Ute case is now on appeal to the United States Court of Appeals for the Tenth Circuit.265 The issues presented for review on appeal are:

(1) Whether Congress intended to grant to agricultural entrymen who elected to receive limited patents under the 1909 and 1910 Acts the right to extract coalbed methane and other substances from coal deposits underlying the patented lands, even though those Acts reserved to the United States "all coal in said lands" and "the right to prospect for, mine, and remove the same."266

(2) Whether, under the circumstances of this case and the doctrines set forth in Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.,267 the Court is required to defer to the ex parte 1981 opinion of the Solicitor of the Department of the Interior, when that opinion is contrary to Congress' intent and established rules of public land law.268

(3) Whether the district court erred in entering judgment in entirety against the Tribe on its Second Claim for Relief, which asserted that tribal consent was required to invade tribal coal deposits to extract coalbed methane no matter who owned the coalbed methane.269

The Tribe seeks a declaration that the owner of coal deposits and the owner of the right to prospect for, mine, and remove coal reserved under the 1909 and 1910 Acts also owns the coalbed methane located in the deposits and the right to extract coalbed methane from the coalbeds.

The appeal has been fully briefed and was argued before the Tenth Circuit in November 1995. As of the date of this article, the Tenth Circuit has not rendered its decision on the Tribe's appeal.

3. James C. Street v. OXY USA, Inc.

The plaintiffs in James C. Street v. OXY USA Inc.270 filed a bill of complaint in the Circuit Court of Buchanan County, Virginia, requesting a declaratory judgment to determine the rights of the parties to the natural gas and coalbed methane gas in a 458-acre tract. The plaintiffs allege that an 1887 deed to the defendants'
predecessors in title did not convey the coalbed methane or the natural gas underlying the 458-acre tract. Thus, the plaintiffs, as surface owners, contend that title to the natural gas and coalbed methane is vested in them. Garden Creek Pocahontas Company (Garden Creek), the coal lessee of the 458 acres, and Island Creek Coal Company (Island Creek), the coal sublessee, were allowed to intervene in the case. Garden Creek alleged that as coal lessee it had the right to: (1) release coalbed methane into the atmosphere as a safety measure in its mining operation and (2) capture the coalbed methane by virtue of its coal lease on the property.

Subsequently, Garden Creek and Island Creek filed a motion for summary judgment. They have argued that the 1887 deed which conveyed "all the coal and mineral in, upon, and underlying" the 458-acre tract did in fact convey the natural gas to defendants' predecessors in title. In support of their argument, Garden Creek and Island Creek cited the decision in *Warren v. Clinchfield Coal Corp.* The court in *Warren* held that the generic term "minerals," unless otherwise qualified, embraced not only solid minerals but oil and gas as well. No decision has yet been reached on the intervenors' motion for summary judgment.


In *Finite Resources, Ltd. v. Western Fuels-Illinois, Inc.* Finite Resources, Ltd. (Finite) filed suit claiming that Brushy Creek Coal Company, Inc. (Brushy Creek) owed it royalties on the coalbed methane gas Brushy Creek was venting for its coal mine operation. Western Fuels-Illinois, Inc. (Western), the coal owner, leased its interest in coalbed methane to Finite. Thereafter, Brushy Creek and Western obtained a permit from the Illinois Department of Mines and Minerals, Division of Oil and Gas for the venting of methane gas. Finite claims that Western and Brushy Creek are in violation of the coalbed methane gas lease terms and is: (1) claiming damages in excess of $250,000 for Western's failure to plug the Henk No. 1 well; (2) claiming damages in excess of $250,000 for Western's alleged coalbed methane waste; and (3) claiming damages in excess of $250,000 for Brushy Creek's alleged coalbed methane gas waste.

Brushy Creek and Western filed a countersuit claiming that Finite has breached the development covenants of the coalbed methane lease and asked the court to

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272. Id. at 22.
274. Id.; see *Answer to Defendants/Counterplaintiffs’ Affirmative Defenses and Counterclaims at 1-2, Finite Resources, Ltd. (No. 93-L-47)* [hereinafter Answer and Counterclaim]. As pointed out by Finite in its Answer and Counterclaim, the permit actually stated to drill and operate a well "for Mine Service . . . ." Id.
276. Id. at 3.
277. Id. at 5.
declare the lease terminated.\footnote{278} Brushy Creek and Western are seeking damages in the amount of $200,000.\footnote{279} Brushy Creek and Western claim that because Finite did not develop the land as required in the coalbed methane lease, methane levels in the mine increased, and the mine was evacuated.\footnote{280} The damages include the claimed costs of drilling the methane ventilation well and loss of income from coal mining operations.\footnote{281} Other issues raised by Brushy Creek and Western involve Finite's royalty payments, rights to wells drilled prior to the lease, and rental of these well sites.\footnote{282} No decision has been rendered.

C. Settled Case

\textit{Columbia Natural Resources, Inc. v. Penn Virginia Resources Corp.}\footnote{283} involved a dispute between the fee mineral owner and its oil and gas lessee and coalbed methane lessee, all of whom are parties to a joint operating agreement for the development of oil and gas on the acreage at issue. Columbia Natural Resources (CNR) filed its motion for judgment on August 20, 1993 (the Motion). CNR sought a declaratory judgment to void a 1993 coalbed methane lease (the 1993 Lease) between Penn Virginia Resources Corporation (PVRC) and Equitable Resources Energy Company (EREC). CNR alleged that it previously acquired the coalbed methane pursuant to its 1972 and 1988 oil and gas leases (the Leases)\footnote{284}. In addition, CNR claimed that the acreage covered by the 1993 Lease was subject to a 1984 joint operating agreement (the JOA)\footnote{285} which specifically included all leased and unleased gas interests.\footnote{286} EREC was designated operator under this JOA. CNR also sought compensatory and punitive damages against PVRC and EREC for an alleged breach of their contractual and fiduciary duties under the Leases and the JOA.\footnote{287} The case proceeded to the discovery phase before a

\footnote{278} Answer and Counterclaim, supra note 274, at 9.
\footnote{279} Id. at 10.
\footnote{280} Id. at 9-10.
\footnote{281} Id. at 10.
\footnote{282} Id. at 11-12.
\footnote{283} No. L93-317 (Va. Cir. Ct., filed Aug. 20, 1993).
\footnote{284} Motion for Judgment at 1-2, Columbia (No. L93-317).
\footnote{285} See infra note 291 and accompanying text.
\footnote{286} Motion for Judgment at 2, Columbia (No. L93-317).
\footnote{287} In Dime Box Petroleum Corp. v. Louisiana Land and Exploration Co., 938 F.2d 1144 (10th Cir. 1991), the court held that under Colorado law, a fiduciary relationship exists between parties to a joint venture. Under Colorado law, however, a joint venture cannot arise merely by operation of law. A joint venture’s legal force is derived from the parties’ voluntary agreement. Id. at 1147.

Although an operating agreement involving oil and gas leases created a joint venture between operator and nonoperator, the agreement created the standard by which to measure the operator's conduct other than the standard normally imposed upon a fiduciary in a joint venture setting. The agreement specifically provided that the operator had no liabilities to the nonoperator except for those arising from gross negligence or willful misconduct. Id. at 1147-1148.

In Jeannes v. Henderson, 703 F.2d 855 (5th Cir. 1983), the court held that a contract for drilling several wells created a joint venture. The option to participate in further exploration, however, did not create a fiduciary duty on the part of the lessee under Texas law. Id. at 859. Texas law draws a tight perimeter in defining a joint venture. The duties attendant upon a joint venture would not come into existence until

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confidential settlement agreement was reached between the parties. Therefore, no
decision was entered regarding the declaratory judgment and damage request.
Additionally, the coalbed methane leasehold ownership issues that were involved
were not adjudicated. However, in light of the significant issues raised and the
unique fact situation presented by the case, it is important to analyze the arguments
and points presented by the litigants.

The Leases conveyed specific acreage for the "exploration, production and
marketing of all oil and gas . . . ."\textsuperscript{288} CNR alleged that the Leases embraced the
same acreage as the 1993 Lease.\textsuperscript{289} The JOA, entered into by CNR, PVRC, and
ERECE, or their predecessors in interest (and additional parties not included in the
litigation), included an agreement "to conduct exploratory and development drilling
and completion operations on the lands covered hereunder in search of commercial
production of oil and/or gas in a manner so as to effect optimum benefit to each of
said parties in direct proportion to their respective interests as they appear elsewhere
herein."\textsuperscript{290} CNR maintained that the JOA created a joint venture among the particip-
ants.\textsuperscript{291} CNR claimed that as a joint venturer, EREC and PVRC owed a fiduciary

\footnotesize{the future development occurred. The option, at best, described a circumstance when a fiduciary duty
might arise. \textit{Id.}

The parties did not undertake to engage generally in the production and sale of gas from
the Lopena field. The extent of their enterprise or joint venture was carefully defined by
the contract. It contemplated and provided for the development of certain specified and
carefully described areas held under certain named and well identified leases. . . . The
subject matter of the enterprise, the property employed in the joint adventure, was those
leases, the land described in them, and the gas under the land.

\textit{Id.} at 858 (citing Warner v. Winn, 197 S.W.2d 338, 342 (Tex. 1946)).

\textsuperscript{288} Motion for Judgment at 3, \textit{Columbia} (No. L93-317).

\textsuperscript{289} \textit{Id.} at 4.

\textsuperscript{290} \textit{Id.} at 5.

\textsuperscript{291} \textit{Id.} at 5-6. A "joint operating agreement" is an agreement between or among interested parties
for the operation of a tract or leasehold for oil, gas and other minerals." HOWARD R. WILLIAMS &
WILLIAM & MEYERS, TERMS]. The agreement is typically between the operator and nonoperators and
"there is no expression of intention that an agreement is entered into among the nonoperators." HOWARD
WILLIAMS & MEYERS, LAW]. The joint operating agreement creates a contractual relationship, the extent
of which is "a matter of the expressed intention of the parties." \textit{Id.} at 109. The intention of the parties
extends to the contract area which is defined as "all of the lands, oil and gas leasehold interests, and oil
and gas interests intended to be developed and operated under the agreement." McAlpin v. Sanchez, 858

An underlying relationship can, however, affect the relationship that is formed by the joint operating
agreement. The joint operating agreement contractual relationship does not create a trust, but when
"cotenants undertake to designate a cotenant as operating agent . . . they become coadventurers in the
enterprise, and stand in a fiducial relationship to each other and to the operating agent." WILLIAMS &
MEYERS, \textit{LAW, supra,} at 109 (quoting Britton v. Green, 325 P.2d 377 (10th Cir. 1963)). While the joint
operating agreement is "not intended to create any relation between the operator and nonoperators nor
among nonoperators that is beyond the contractual relation . . . . it is possible that prior or contemporane-
ous transactions might have created a joint venture or possibly a mining partnership and that the JOA
is an implementing instrument of the relation previously created." WILLIAMS & MEYERS, \textit{LAW, supra,
§ 19A.6(c)} at 109.
duty to all other parties in the JOA, including CNR, and that EREC and PVRC breached their fiduciary duties. CNR also asserted that pursuant to the JOA, PVRC and EREC breached their duties of good faith and fair dealing. CNR claimed that EREC and PVRC did not inform CNR in a timely manner that PVRC took the position that the Leases did not include coalbed methane. Additionally, CNR alleged that EREC failed to defend the "joint venture's title and that of its joint venturers" against PVRC's claim that the Leases did not include coalbed methane. CNR claimed damages for the alleged breaches without specifying an amount.

EREC and PVRC filed their motions to dismiss and demurrers in September 1993. EREC and PVRC alleged that: (1) CNR had misjoined distinct causes of action against separate parties; (2) CNR failed to state a cause of action for compensatory or punitive damages as the damage amount was not declared; (3) CNR's allegations regarding the award of punitive damages were insufficient and totally inadequate to state a cause of action; (4) CNR failed to state a cause of

"Joint adventure [venture]" is "[a]n association of persons for the prosecution of a single venture." WILLIAMS & MEYERS, TERMS, supra, at 549. The common elements of a joint venture include: (1) a community interest in the object of the undertaking; (2) an equal right to direct and govern each other; (3) sharing in the losses, if any; and (4) a close, even fiduciary, relationship between the parties. Id. (citations omitted); see also Dime Box Petroleum Corp. v. Louisiana Land and Exploration Co., 938 F.2d 1144 (10th Cir. 1991); James v. NICO Energy Corp., 838 F.2d 1365 (5th Cir. 1988).

293. Motion for Judgment at 11-Columbia (No. L93-317).
294. Id. at 12.
295. In Palmer v. Fuqua, 641 F.2d 1146 (5th Cir. 1981), an oil and gas lease for property contiguous to lands owned by a limited partnership was within the "area of interest owned" by the partnership within the meaning of the term in the limited partnership agreement. Therefore, the general partner had a duty to offer the limited partners an opportunity to participate in the oil and gas lease before acquiring the lease for his individual use. Id. at 1155. In addition, the court held that the general partner breached his fiduciary duty by acquiring the lease without first offering the interest to the limited partners. The court held that "[p]artners, as a matter of law, stand in a fiduciary relationship." Id. at 1155 (citing Thigpen v. Locke, 363 S.W.2d 247, 253 (Tex. 1962)). The imposition of a constructive trust was the appropriate remedy for the general partner's breach of fiduciary duty. Palmer, 641 F.2d at 1155.
296. See VA. CODE ANN. § 8.01-273 (Michie 1992). "A demurrer is a pleading by which the demurrant challenges the legal sufficiency of the opposing pleading and demands the judgment of the court on the matter before proceeding further (compare Fed. R. Civ. P. 12(b)(6) (failure to state a claim upon which relief may be granted)." LEIGH B. MIDDLEDITCH, JR., & KENT SINCLAIR, VIRGINIA CIVIL PROCEDURE § 9.6 at 407-38 (2d ed. 1992). Unlike a motion for summary judgment, a demurrer does not allow the court to evaluate and decide the merits of a claim. It merely tests the sufficiency of the factual allegations regarding whether the motion for judgment stated a cause of action. Fun v. Virginia Military Inst. 427 S.E.2d 181, 183 (Va. 1993).
297. The main points in EREC's and PVRC's motions to dismiss and demurrers were basically the same. The same points were also addressed by EREC and PVRC in the memoranda in support of their motions to dismiss and demurrers. The points are, therefore, discussed jointly.
299. Id. at 2.
300. Id. at 2-3.
action for breach of good faith and fair dealing;\(^{301}\) and (5) CNR's allegations that
EREC owed a fiduciary duty to CNR were unsubstantiated as CNR had failed to
prove the elements of a joint enterprise (venture) relationship.\(^{302}\)
CNR countered with its memorandum in response to the motions to dismiss and
demurrers.\(^{303}\) CNR argued that: (1) the demand for damages was sufficient (the
nature of the claim and the types of damages were enumerated) under Virginia
law;\(^ {304}\) (2) punitive damages may be awarded for the willful and wanton breach
of a fiduciary relationship;\(^ {305}\) (3) PVRC and EREC made a deal for their own
benefit and intentionally failed to disclose it to their fiduciaries;\(^ {306}\) and (4) EREC's
demurrer to the good faith and fair dealing was based on the mistaken belief that
CNR was alleging a tort claim of bad faith.\(^ {307}\) Instead, CNR maintained that the
breach of good faith claim stated breaches of contract based on implied contractual
duty.\(^ {308}\) The existence of a fiduciary relationship is a question of fact and not
susceptible to demurrer.\(^ {309}\) CNR contended that EREC was the operator under the
JOA, a joint venturer under the JOA, and owed CNR a fiduciary duty.\(^ {310}\)
A hearing was held on November 3, 1993. The court sustained EREC's demurrer
to CNR's purported breach of good faith claim and held that CNR had failed to
properly allege its claim.\(^ {311}\) The court granted leave to CNR to amend its motion
to reflect the proper claim of breach of contract. PVRC's and EREC's motion to
dismiss were overruled on the basis of misjoinder.\(^ {312}\) The court allowed CNR to
amend its motion regarding compensatory damages.\(^ {313}\)
As to the breach of fiduciary duty, the court (1) overruled EREC's demurrer as
to fiduciary duty being a separate cause of action but (2) sustained EREC's demurrer
as to the "breach of fiduciary duties" and allowed CNR to amend its motion in

\(^{301}\) Id. at 4.
\(^{302}\) Id. (citing Alban Tractor Co. v. Sheffield, 263 S.E.2d 67, 68 (Va. 1980) (finding that the
elements of a joint enterprise are community of interest and equality of the right to control)).
\(^{303}\) Again, PVRC's and EREC's memoranda responses are essentially the same. Although the focus
is primarily on CNR's response to EREC, the comments are applicable to both defendants' memoranda.
\(^{304}\) Plaintiff CNR's Memorandum of Points and Authorities in Response to Equitable's Motions
To Dismiss and Demurrers at 3, Columbia (No. L93-317) [hereinafter CNR Memorandum] (citing VA.
SUP. CT. R. 1.4 and Wood v. American Nat'l Bank, 40 S.E. 931, 932 (Va. 1902)).
\(^{305}\) CNR Memorandum, supra note 304, at 3 (citing Avocet Dev. Corp. v. McLean Bank, 364
S.E.2d 757, 762 (Va. 1988)).
\(^{306}\) CNR Memorandum, supra note 304, at 4.
\(^{307}\) Id.
\(^{308}\) Id. (citing Tymshare, Inc. v. Covell, 727 F.2d 1145, 1152-53 (D.C. Cir. 1984); RESTATEMENT
(SECOND) OF CONTRACTS § 205 (1981)).
\(^{309}\) CNR Memorandum, supra note 304, at 5 (citing Allen Realty Corp. v. Holbert, 318 S.E.2d 592
(Va. 1984)).
\(^{310}\) Id. (citing Horne v. Holley, 188 S.E. 169, 171-72 (Va. 1936); see also Burruss v. Green
\(^{311}\) Transcript of Nov. 3, 1993 Hearing Before the Honorable J. Robert Stump at 58, Columbia
(No. L93-317). CNR was also instructed by the court to amend other alleged claims.
\(^{312}\) Id. at 56.
\(^{313}\) Id. at 57.
regard to joint venture and partnership. In addition, the court sustained EREC's demurrer regarding punitive damage. The court also ruled that until the amended motion and responses were filed, EREC and PVRC were not required to respond to discovery filed by CNR.

CNR filed its amended motion for judgment on November 23, 1993 (the Amended Motion). CNR added the following complaints to the Amended Motion: (1) EREC represented to the Virginia Gas and Oil Board (the Board) that it owned the coalbed methane rights in the subject lands pursuant to the 1993 Lease; (2) EREC obtained permits for six (6) coalbed methane wells from the Department of Mines, Minerals, and Energy (DMME); and (3) the Board has designated EREC the operator of the wells.

CNR also claimed that EREC's and PVRC's offer to CNR to participate in the 1993 Lease is an admission that the 1993 Lease is within the area of mutual interest under the JOA's terms. CNR further contended that PVRC had failed to perform its contractual obligations under the JOA which required PVRC to contribute the 1993 Lease interests to the joint venture.

CNR maintained that PVRC was obligated by the JOA to contribute any unleased fee and mineral interests to the joint venturers without additional compensation.

In the Amended Motion, CNR changed its breach of duties of good faith and fair dealings claim to a breach of contract claim against PVRC and EREC. CNR alleged that PVRC and EREC had an implied duty to act in good faith, failed to defend title of the joint venture and negotiated and executed the 1993 Lease increasing PVRC's benefits at the expense of CNR and the other joint venturers. CNR also expanded its claim of breach of fiduciary duty. CNR claimed that a joint venture existed although the minutes of meetings held pursuant to the JOA referred to the parties as "partners." And, in any event, CNR maintained that the obligations between joint venturers and partners are "essentially the same." The remainder of the Amended Motion was the same as the Motion previously filed. The Amended Motion still did not name an amount for the claimed damages.

EREC and PVRC filed their amended motions to dismiss and demurrers on December 15, 1993, and their memoranda in support of the amended motions to dismiss and demurrers on December 29, 1993. In addition to the arguments presented by EREC in its previous memorandum, EREC maintained that CNR

314. Id. at 58-59.
315. Id. at 59. Again, the court granted CNR the privilege of amending its motion to include "the magic words." Id.
316. Id. at 62-63.
318. Id. at 9.
319. Id. at 10.
320. Id. at 11.
321. Id. at 12-13; see also Motion for Judgment at 11-12, Columbia (No. L93-317). PVRC's royalties pursuant to the Leases were 12-1/2% and, pursuant to the 1993 Lease, 15%.
323. Id.
324. The memoranda will be discussed jointly, primarily referencing the EREC memorandum.
325. See supra notes 297-302.
misinterpreted the provisions of the JOA and was asking the court to rewrite the contract to impose a duty of good faith where none existed. EREC claimed that CNR had not set forth the allegations necessary to prove a breach of contract as instructed by the court.  

CNR claimed that EREC was attempting to delay discovery by filing procedural motions. In addition to its previous arguments regarding the existence of a joint venture, CNR claimed that just because one party was selected as the operator, the nature of the joint venture was not destroyed. CNR maintained that the parties to the JOA had the right to remove the operator. Thus, all parties had a voice in the management of the joint venture and EREC, as operator, owed a fiduciary duty to the nonoperators. CNR also responded to PVRC's memorandum regarding breach of contract. CNR claimed that all that is necessary for a breach of contract claim to withstand a demurrer is to plead the substance of the breach. The remaining arguments were addressed by CNR's first memorandum.

The court overruled PVRC's and EREC's amended motions to dismiss and demurrers by letter, dated January 31, 1994. Only PVRC responded to the interrogatories filed by CNR before a confidential settlement agreement was reached in June 1994. The agreed final order was entered on December 8, 1994. No coalbed methane ownership cases have been tried in Virginia. Because this case involved the leasehold ownership issues regarding the oil and gas lessee versus the coalbed methane lessee, it would have been a landmark case. One can only speculate on the outcome, however, because only the procedural motions concerning a demurrer were fully presented and argued.


327. Penn Virginia Resources Corporation's Memorandum of Points and Authorities in Support of its Demurrer to Amended Motion for Judgment at 3-5, Columbia (No. L93-317) (citing Wells v. Whitaker, 151 S.E.2d 422 (Va. Ct. App. 1966); Smith v. Grenadier, 127 S.E.2d 107 (Va. Ct. App. 1962) (holding that if two or more persons combine in a joint business-enterprise for their mutual benefit with an express or implied understanding or agreement that they are to share in the profits or losses of the enterprise each is to have a voice in its control or management)).

328. Plaintiff CNR's Memorandum of Points and Authorities in Response to Equitable's Motions to Dismiss and Demurrers to Amended Motion for Judgment at 1, Columbia (No. L93-317) [hereinafter CNR's Memorandum II]. To the extent that CNR's responses to PVRCs and EREC's memoranda are the same, the reference will be to CNR's memorandum addressing EREC's arguments.

329. Id. at 5 (citing 46 AM. JUR. 2D Joint Ventures § 42 (1994) (the rights of the parties with respect to the management and control of the enterprise may be fixed by agreement so as to effectively place control in the hands of one of the joint venturers)).

330. CNR's Memorandum II, supra note 328, at 5 (citing Fuqua v. Taylor, 683 S.W.2d 735 (Tex. Ct. App. 1984)).

D. Analysis, Contrast, Comparison, and Resolution of the Alabama Decisions

As evidenced by the previous coalbed methane case summaries, in the relatively sparse arena of coalbed methane ownership litigation, Alabama is the only state that has developed a comparative wealth of judicial opinions on the subject: Rayburn v. USX Corp., Vines v. McKenzie Methane Corp., NCNB Texas Nat'l Bank v. West, and one case currently pending, Pinnacle Petroleum Co. v. Jim Walter Resources, Inc. Although Alabama state and federal courts have decided the coalbed methane ownership issue always looking at the "intent and/or production" theories as we have labelled them, the facts and complete analysis in each case are different. Therefore, it seems appropriate to analyze, compare, contrast, and resolve the Alabama decisions in relation to each other. The trend of the Alabama cases has been to follow the landmark decision of United States Steel Corp. v. Hoge. The Pennsylvania Supreme Court held that the owner of the coal estate has the exclusive right to coalbed methane possession. The trend was modified in West for reasons specifically related to Alabama law.

Typically, courts addressing the issue of coalbed methane ownership have explicitly based their decisions on the reservation language of the various deeds. Two elementary rules of construction have been employed: (1) where a deed is not ambiguous, the court is obligated to enforce the plain language of the reservation and (2) where ambiguities exist, the court may look to contemporary understanding on the date of execution of the deed to determine the intent of the parties. The Alabama cases purport to follow these rules of deed construction. The West decision, however, incorporates Alabama property law to reach a logical and consistent result. While none of the decisions are necessarily inconsistent, the West decision may prove to be the exception that overtake the rule of prior precedents.

1. Rayburn v. USX Corporation

Rayburn is possibly more interesting for its brief discussion of local petroleum exploration history than the ultimate resolution of the case. The trial court stated that the status of the oil and gas industry in 1960, the date of the deed reserving

332. A discussion of Cantley v. Hubbard, 623 So. 2d 1079 (Ala. 1993), has not been included in this analysis. The decision in Cantley did not address the coalbed methane ownership issues in the same context as the other cases included in this analysis.
334. 619 So. 2d 1305 (Ala. 1993).
335. 631 So. 2d 212 (Ala. 1993).
337. See supra parts II.A.ii.b, iv-v.
338. 468 A.2d 1380 (Pa. 1983)
coal rights, was "pertinent to the question before the court." The court looked at local history, seeking evidence of serious consideration of coalbed methane production. Although as long ago as 1916 there was some indication that gas production from the Mary Lee Coal Seam was possible, the court found no other discussion of coalbed methane commercial extraction. However, this discussion was treated as dicta and had no bearing on the resolution of the case. Given the holding, it is difficult to see why the court ventured into this line of reasoning and analysis.

The district judge concluded that the coal reservation was not ambiguous. By its plain language, the deed precluded anyone other than the owner of the coal estate from extracting coalbed methane. The deed required the grantor to include casing and grouting requirements in any subsequent grant of oil and gas rights. The requirement called for either casing or a cement plug to extend from fifty feet above any coal seam to fifty feet below the coal seam. The court concluded that such requirements were inconsistent with any intent to reserve coalbed methane rights in the grantor.

Therefore, the common understanding of commercial viability of coalbed methane extraction in 1960, or any other time, was therefore wholly irrelevant to the holding. The case turned exclusively on the specific language of the conveyance of coal rights to USX Corporation. The same cannot be said for the second case, *Vines v. McKenzie Methane Corp.*

2. *Vines v. McKenzie Methane Corporation*

In *Vines*, the Alabama Supreme Court adopted a position analogous to that of the Pennsylvania Supreme Court in *Hoge*. The Alabama court held that common understanding at the time of the conveyances in question, a 1902 oil and gas lease and an 1898 coal lease, conclusively vested rights to coalbed methane in the defendant coal owner. The conveyancing language in *Vines* was not similar to the conveyancing language in *Rayburn*. The grant consisted of "all coal" and other minerals; no reservation of oil and gas was made. The court concluded that the *Hoge* analysis was correct; because coalbed methane historically was considered a nuisance, the grantor could not have intended to reserve rights in the gas. Because "all coal" was granted, the reservation necessarily included coalbed methane. The *Vines* court was careful to make the point, as was the *Hoge* court, that the holding did not preclude grantors from explicitly reserving rights in coalbed methane. The holding of *Vines* is that, absent specific language to the contrary, Alabama law does not recognize an implied reservation of rights in coalbed methane.

340. *Id.* at *3.

341. 619 So. 2d 1305 (Ala. 1993).

342. *Id.*

343. 468 A.2d 1380 (Penn. 1983).

344. *Vines*, 619 So.2d at 1308.

345. *Id.* at 1308-09.
The decision in Vines upheld a summary judgment in favor of the coal owners. However, the dissent argued that the leases were ambiguous, leaving a question of material fact.\textsuperscript{346} Summary judgment was improper where the intent of the parties was unclear. The author of the dissent in Vines, Justice Shores, authored the majority opinion in West. Justice Steagall, who joined the Vines dissent, concurred in the majority opinion in West. Given the modification of Vines in West, it is perhaps easiest to explain the later case as an attempt to narrow the holding of Vines. The end result of Vines is that, absent deed language to the contrary, the coal owner is presumed to have the exclusive right to extract coalbed methane as long as it remains within the coal seam. The possessory rights issue with regard to the gob gas was not before the Vines court.

Possibly, the easiest attack on the Vines decision is that the court made no effort to look to substantive property law to resolve the dispute. The court instead purports to determine the intent of the parties at the time of the lease. The reality is that while the lessor almost certainly had no intention of retaining rights in the coalbed methane, the lessee would probably have gladly given it away. Neither party had any intention regarding the capture of coalbed methane. This is probably why Justice Shores' opinion in West garnered majority support: it resolved the issues based on Alabama property law. As such, the majority opinion is a more principled decision, although it creates a two-tiered scheme of extractive rights and a royalty payment scheme that is not easily monitored on a practical level. It would be practically impossible to isolate the "gob gas"\textsuperscript{347} derived from mined-out coal seams from the coalbed methane contained within an unmined coal seam or from the coalbed methane which has migrated from the coal seam into other formations, especially if these gasses are being produced from the same borehole. Although there are some experts who claim that such separation can be accomplished, it is not very practical in the "real-world scheme" of coalbed methane production.

Assuming that the gasses can be separated, how would the gasses be measured? How would initial drilling and frac development be encouraged when gob gas results in the biggest monetary gains? The coal owner receives the royalties from the coalbed methane contained within the unmined coal seams, while the gas owner is entitled to the coalbed methane that has migrated from the coal seams into other formations, including gob gas. If an operator cannot persuade the coal and oil and gas owners to agree to a production split, how can the gas owner be convinced to drill the well? Similarly, if the drilling and production is not conducted in conjunction with an active coal mine area, how can the coal owner be made to agree to the drilling of the well?\textsuperscript{348} Payment for the royalties of coalbed methane

\textsuperscript{346} Id. at 1309.

\textsuperscript{347} Gob gas is coalbed methane derived from the gob. The "gob" is the "de-stressed zone associated with any full-seam extraction of coal that extends above and below the mined-out coal seam." VA. CODE ANN. § 45.1-561.1 (Michie 1994). "A gob well is one drilled from the surface of the earth down to a stratum where Coalbed Gas released from a coal mine 'gob' can be extracted. The gob is produced by the longwall mining method . . . ." NCNB Texas Nat'l Bank v. West, 631 So. 2d 212, 215 (Ala. 1993).

\textsuperscript{348} Lane states:
contained within the coal seam may not balance against (or provide the incentive) for the coal owner to drill wells in, near, or through coal seams prior to mining. A very real issue emerges: "[h]ow do you allocate the costs [as opposed to the royalties] among all the participants (coal v. oil and gas owners) in the well?"

3. NCNB Texas National Bank v. West

The West decision was the first to combine the elements of prior coalbed methane jurisprudence with the substantive law of real property. The deeds at issue in the case included a grant of "all the coal" in the coal estate and a reservation of "all the oil, gas, petroleum" in the oil and gas estate. The court concluded that "all" means all; the term was not ambiguous. Since the deeds were not ambiguous, the court applied a plain language interpretation. Interpreting Alabama property law, the court determined that a two-tiered right of capture existed for the coalbed methane. Alabama applies a nonownership theory of oil and gas rights. Nonownership essentially means that ownership is not conclusive until the oil or gas has been reduced to possession. In other words, if gas migrates from land leased by gas lessee A to land leased by gas lessee B where it is captured, the gas conclusively belongs to B. In the context of the case, the court determined that since the gas lessee had rights to all gas, then gas that migrated from the coal estate to other strata could be extracted exclusively by the owner of the gas rights in that strata. All is all. Since the gas was contained in a formation subject to the gas lessee's interest, it was included within the grant of all gas. Thus, the oil and gas lessee, NCNB, was awarded rights in the gob gas.

The second tier of ownership derives from the right of the coal lessee to take whatever measures necessary to mine the coal. Since coal can only be mined safely and legally by removing coalbed methane, the coal owner necessarily has the right to remove and capture the coalbed methane within the coal seam. Any other result would render the coal lessee incapable of mining.

[L]ongwall mining by definition affects the surface and all strata between the coal seam being mined and the surface, including other coal seams . . . and other substances. Additionally, the size of the longwall panels and the inability to make alterations to the configuration of the panels can cause special problems with regard to development of other substances below the coal, particularly the oil and gas.

Lane, supra note 1, at 586.

As long as oil and gas operations have existed in areas of coal reserves and active coal operations, a natural conflict has existed between the two industries. This conflict has been heightened in recent years with the increased interest in developing coalbed gas existing in the coal, as well as the increased use of longwall mining.

Id. at 614 (citation omitted).

349. 631 So. 2d 212 (Ala. 1993).
350. Id. at 216.
351. Id. at 216-17.
352. Id. at 223.
353. Id. at 223-24.
354. Id. at 223.
355. Id. at 229.
The result of West leaves a few interesting questions unanswered: Does the gob gas resolution apply to the facts of Vines where no reservation of "all gas" was ever made? It seems reasonable to conclude that even under Vines, gob gas is available for conveyance under an oil and gas lease. However, the Vines court held that the reservation of "all coal . . . and other minerals" necessarily included the coalbed methane. The difference in results in the two cases appears to have more to do with a philosophical difference between the justices than any substantive difference in the facts of the cases. Therefore, since the Shores viewpoint prevailed in West, it will probably prevail in future litigation under the same court.

A second question has to do with the result in Rayburn: Would gob gas within the 100-foot encased zone be available for extraction by the gas lessee? Would it be available to the coal lessee? Or would this gas be unavailable to either party under the combined effect of the lease and the holding in West? The result might be that since the lease required the 100-foot casing zone, the coal lessee obtained an interest in that strata sufficient to confer extractive rights. This conclusion is, however, pure speculation. The question is too esoteric to forecast a result under current Alabama case law.

A final question is how the logic of West might be applied in the majority of jurisdictions that apply an ownership in place theory of possession. The coal owner in these jurisdictions would presumably retain rights in the gob gas, but this would undermine the "all gas" foundation of the court's opinion.


Under the holding of West, the issue in this pending litigation appears to be fairly clear. Pinnacle claims to be the owner of rights to "all gas" within the lands described in the complaint. Assuming this is an accurate description of Pinnacle's rights, then the case is similar to the facts of West. As such, the proper resolution would be to deny Pinnacle extraction rights in coalbed methane contained within the coal seam, but grant rights in any gob gas. As to the claim that some of the gas in the coal seam is not coalbed methane, but rather natural gas that has migrated from other strata, it is irrelevant. If the owner of the coal, Jim Walter, is to have the right to mine, then Jim Walter must necessarily have the right to remove all gas, regardless of its source. This conclusion is supported by the language in West. The opinion stated: "There is no scientific or technical basis to treat coalbed methane gas as a different resource from other natural gas. There is likewise no compelling reason why coalbed methane gas should receive a different legal treatment from other gas . . . . " Conversely, it might be argued, there is no compelling reason to give natural gas a different legal treatment from coalbed methane gas.

An order partially granting defendant's motion for summary judgment was entered on July 28, 1989. As predicted, the court held that Jim Walter, as the coal lessee,

356. Vines, 619 So. 2d at 1308-09.
358. NCNB Texas Nat'l Bank v. West, 631 So. 2d 212, 228 (Ala. 1993).
had the exclusive right to produce coalbed methane from the property.\textsuperscript{359} The action remained on the docket to settle disputes regarding whether any of the gas produced by Jim Walter was gas other than coalbed methane.\textsuperscript{360}

\section*{III. National Energy Policy Act of 1992}

Neither state nor federal lawmakers have been content to allow the issues regarding coalbed methane to be solely decided in the private sector or in the courts. Both state and federal legislators have enacted statutory schemes regarding coalbed methane that are included in the total energy regulatory framework. The statutes seek to actively promote development of coalbed methane. Furthermore, the recently enacted federal legislation encourages states to develop their own independent regulatory framework. As a result, the immediate future would appear to be a fruitful period for the development of additional statutory provisions relating to coalbed methane, particularly in Illinois, Kentucky, and Tennessee.

The National Energy Policy Act of 1992 (EPACT)\textsuperscript{361} was signed by President Bush on October 24, 1992. This legislation is significant in that it includes coalbed methane development provisions patterned after Virginia's coalbed methane statutes and regulations.\textsuperscript{362} EPACT established its public policy to encourage coalbed methane development and to aid in the resolution of competing ownership claims.\textsuperscript{363}

In implementing this section, the Interior Secretary, with the participation of the Energy Secretary, shall —

(A) consider existing and future coal mining plans,
(B) preserve the mineability of coal seams, and
(C) provide for the prevention of waste and maximization of recovery of coal and coalbed methane gas in a manner which will protect the rights of all entities owning an interest in such coalbed methane resource.\textsuperscript{364}

The purpose of EPACT, as described in the Department of Energy's Implementation Status Report (the Energy Report), is to emphasize development of technologies for coalbed methane recovery and encourage resolution of ownership issues surrounding coalbed methane.\textsuperscript{365}

\begin{flushleft}
\textsuperscript{360} Id. See supra note 203.
\textsuperscript{361} 42 U.S.C. §§ 13,201-13,556 (1994).
\textsuperscript{362} See infra part IV for a comparison of EPACT, West Virginia's coalbed methane legislation and the Virginia Gas and Oil Act's provisions regarding coalbed methane development.
\textsuperscript{363} 42 U.S.C. § 13,368(b) (1994).
\textsuperscript{364} Id. § 13,368(d).
\end{flushleft}
Section 13368 of EPACT is titled "Ownership of coalbed methane." Application of section 13368 was limited to coalbed methane deposits in "Affected States" where the United States owned the surface or the subsurface mineral estates. However, subsection (c) applied section 13368 to any Affected State that has not implemented, by statute or regulation, a program for coalbed methane development (including pooling arrangements) within three years after being named as an Affected State. Thus, EPACT effectively created a "default program," by which the federal government will administer coalbed methane development if an Affected State does not implement its own program.

Subsection (b) of section 13368 mandated that the Secretary of the Interior (the Interior Secretary), in conjunction with the Secretary of Energy (the Energy Secretary), publish a list of Affected States in the Federal Register. The Affected States to be included on the Secretaries' lists were those states: (1) having ownership disputes, uncertainty, or litigation regarding coalbed methane ownership; (2) having significant coalbed methane deposits and disputes, uncertainty or litigation which were impeding the development of coalbed methane; (3) that do not have statutory or regulatory procedures encouraging the development of coalbed methane; and (4) that do not have extensive development of coalbed methane. The Affected States list included the same seven states originally listed in EPACT: Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee, and West Virginia. The list, dated April 19, 1993, further provided that "[i]f these States have not removed themselves from this list within 3 years from the date of publication of this notice, then they will be covered by Federal regulations implementing the Act." After the three-year period, the Interior Secretary,

367. According to the Affected States list, "Section 1339 applies to all lands within a State on the list." 58 Fed. Reg. 21,589 (1993); see 42 U.S.C. § 13,368 (1994). The implementation of the provisions of § 13,368 on non-federal lands is to be administered by a state established "State Board." Once a state is listed as an "affected state," it has one (1) year to establish a board, or the Secretary of Energy will act as the board. Legislative History of the 1992 National Energy Policy Act, Pub. L. No. 102-486, 1992 U.S.C.C.A.N. (106 Stat.) 2038 [hereinafter Legislative History].

Coal, oil, and gas operators in Kentucky recently attempted to develop coalbed methane statutes for Kentucky. According to Mr. Stephen G. Barker, with the Kentucky River Coal Corporation, the Kentucky Coal Association and the Kentucky Oil and Gas Association met several times to develop coalbed methane legislation. Mr. Barker indicated that the Kentucky General Assembly decided not to address coalbed methane legislation during its 1996 sessions. Interview with Stephen G. Barker, Kentucky River Coal Corporation (July 1996).
370. 58 Fed. Reg. 21,589 (1993). Since the date of this publication in the Federal Register, the
along with the Energy Secretary, will administer section 13368 and promulgate the
necessary regulations to carry out the program within the Affected State.\textsuperscript{371}

An Affected State may seek removal from the list by one of the following
methods: (1) a legislatively-approved Governor’s petition;\textsuperscript{372} (2) a state law; or
(3) a legislative resolution.\textsuperscript{373} Such removal is, however, contingent upon the
Affected State’s development of a substantial program promoting the permitting,
drilling, and production of coalbed methane wells. In addition, this program must
be implemented within the three year time allotment, October 24, 1995. Nonetheless,
EPACT’s provisions for removal from the Affected States list may be interpreted in
different ways: (1) a petition for removal from the list is all that is
required or (2) in addition to a petition for removal from the list, the state must
also promulgate statutes or regulations dealing with coalbed methane develop-
ment.\textsuperscript{374}

\begin{footnotes}

\item[371] Bureau of Land Management (Bureau) revised its position on the implementation date for EPACT. The
implementation date was determined to be October 24, 1995: the effective date originally mandated by
42 U.S.C. § 13,368(c) (1994). Telephone Interview with David R. Stewart, Chief, Branch of Resources
Planning and Protection, Bureau of Land Management, Eastern States (May, 1995) [hereinafter Interview
I].

\item[372] 42 U.S.C. § 13,368(c) (1994). The federal regulations were published September 15, 1995. 60
Fed. Reg. 47,920 (1995). Public comments were received and revisions made to the draft regulations.
The final regulations have not, however, been completed. Telephone Interview with David R. Stewart,
Chief, Branch of Resources Planning and Protection, Bureau of Land Management, Eastern States (July
24, 1996) [hereinafter Interview II].

\item[373] The state’s governor must provide the legislative body, during its session, with a six (6) month
notice of his/her intent to file a petition for removal from the list. At the end of the 6-month period, the
governor may petition the Interior Secretary for removal, unless the legislative body disapproved of the
petition by law or resolution. 42 U.S.C. § 13,368(b) (1994).

\item[374] David R. Stewart, with the Bureau, confirmed that a controversy over this section of EPACT
existed. Many parties, including Mr. Stewart, believed that the EPACT legislation was not clear that the
development of coalbed methane statutes or regulations is a contingency for removal from the list. Mr.
Stewart, however, indicated that in speaking with EPACT’s authors and sponsors, the intent was to
impose such a contingency upon removal from the list. Interview I, supra note 370.

West Virginia petitioned for and was granted removal from the “Affected States” list on November
seeking removal from the list. See W. Va. Code §§ 22-21-1-22-21-29 (1994). West Virginia has also
developed coalbed methane regulations which became effective on June 1, 1996. W. Va. Regs. §§ 38-23-1-

However, the Governor of Ohio, the Honorable George V. Voinovich, pursuant to legislative
resolution, petitioned for Ohio’s removal from the “Affected States” list. Ohio’s petition was granted, and
Ohio was removed from the “Affected States” list on February 8, 1995. 60 Fed. Reg. 7,576 (1995). Ohio
has not, however, enacted any coalbed methane legislation. Ohio’s petition for removal was based solely
upon the EPACT provisions stating that removal may be obtained by: (1) the state’s passage of a law or
resolution requesting removal; and (2) the governor’s petition for removal after giving legislative

In Pennsylvania, the General Assembly passed a resolution in June 28, 1995, requesting that the
Interior Secretary remove and delete Pennsylvania from the list of “Affected States”. Pennsylvania’s
request was granted, and Pennsylvania was removed from the list on October 4, 1995. 60 Fed. Reg.

Indiana passed a legislative resolution (on March 6, 1995) petitioning the Interior Secretary for

\end{footnotes}
Section 13368 also addresses the following areas of coalbed methane development:

(1) Spacing — subsection (e);
(2) Spacing units — subsection (f);
(3) Pooling and elections — subsection (g);
(4) Escrow accounts — subsection (h);
(5) Approval for drilling of coalbed methane wells for production — subsection (i);
(6) Authorization to stimulate a coal seam — subsection (j);
(7) Notice and objection requirements for coal owners/operators — subsection (k);
(8) Plugging of wells — subsection (l);
(9) Notice and objection requirements for coalbed methane claimants — subsection (m);
(10) Venting of coalbed methane — subsection (n); and
(11) Compliance with other laws — subsection (o).

The highlights from these areas of EPACT will be discussed. If an Affected State retains this status through October 24, 1995, the Interior Secretary, within ninety days after acquiring jurisdiction over the Affected State (pursuant to subsection (c)), shall establish spacing requirements for the minimum distances between coalbed methane wells and from property lines. Any entity claiming a coalbed methane ownership interest (within the proposed unit) may apply to the Interior Secretary for the establishment of a spacing unit in order to drill and operate coalbed methane wells. Upon receipt and approval of an application, the Interior Secretary shall issue an order establishing the boundaries of the coalbed methane spacing unit. "Spacing units shall generally be uniform in size."

After a spacing unit has been established, EPACT provides for the "force pooling" of coalbed methane interests. The Interior Secretary shall hold a removal from the list of "Affected States" Indiana's petition was granted, and Indiana was removed from the list on December 5, 1995. 60 Fed. Reg. 62,255 (1995). Both Pennsylvania and Indiana's petitions were based on the EPACT provision stating that removal may be obtained by the state's passage of a law or resolution requesting removal. 42 U.S.C. §13368(b)(4) (1994). See supra notes 372, 373 and accompanying text.

375. 42 U.S.C. § 13368(e) (1994). This requirement has not been met as the federal regulations are not yet finalized. Interview II, supra note 371.

376. Id. § 13,368(f).

377. Id.

378. Force pooling is a legal remedy providing for the compulsory joinder of nonconsenting ownership rights in properties contained within a drilling unit. Force pooling is an exercise of a state's police power to protect and promote correlative rights. John S. Lowe, Joint Ownership of Oil and Gas Rights, in Oil and Gas Law in a Nutshell 85 (1983); Howard R. Williams et al., Cases and Materials on the Law of Oil and Gas ch. 8, § 2.D, 794-95 (4th ed. 1983).

EPACT does not use this specific term; however, its provisions create an environment that allows an operator to pool the interests of all coalbed methane ownership claimants, whether the interest is leased or a conflicting claim. Thus, an entity which is not leased or is a conflicting claimant may be "forced" under the statute to pool his interest with other coalbed methane claimants.

hearing to consider the pooling application and shall, if all criteria is met, issue a pooling order. The pooling order may not be issued before notice, or a reasonable and diligent effort to provide notice, has been made to each entity claiming coalbed methane ownership (within the spacing unit). The notice provisions of subsections (k) and (m) provide that each entity claiming coalbed methane ownership and coal owners within a specified distance must be given notice of the application. The coal owners have thirty days in which to object to the application. Coalbed methane ownership claimants may also object to the application and such objection period and the conditions for such objections are to be specified by the Interior Secretary. As an additional protection, the coalbed methane ownership claimants may appear and be heard at the pooling hearing.

380. The Interior Secretary may not approve the drilling of a coalbed methane well "[w]here conflicting interests exist, [unless] an order under subsection (g) establishing pooling requirements has been issued." 42 U.S.C. § 13,368(m) (2) (1994). In addition, a drilling unit order must be issued before an applicant may file a pooling application. Id. at § 13,368(g). Finally, the Interior Secretary must: (1) hold a hearing to consider the application; (2) confirm that notice was given to all parties claiming a coalbed methane ownership interest within the unit and that they were provided an opportunity to object; and (3) insure that each coalbed methane owner notified is given an opportunity to appear at the hearing. Id. § 13,368(g), (k), (m).

381. Id. § 13,368(g).

382. This distance is to be established by rules promulgated pursuant to 42 U.S.C. § 13,368(i)(3) (1994).

383. Upon receipt of a timely objection, the Interior Secretary may refuse to approve the drilling of the well based on any of the following:

1) The proposed activity, due to its proximity to coal operations, would adversely affect a coal mine (whether currently operating, abandoned or planned);
2) The proposed activity does not conform with the coal operator's development plan for an existing or proposed operation;
3) There would be an unreasonable interference with present or future coal operations, including the inability to comply with other applicable laws and regulations;
4) Evidence that the proposed activity would be unsafe; and
5) The proposed activity would unreasonably interfere with the safe recovery of coal, oil and gas.


If the Interior Secretary does not approve the well, pursuant to the above objections, he/she shall consider whether drilling could be approved if the unit operator modifies the proposed activity to take into account the following:

1) If it could instead be reasonably done through an existing or planned coal pillar, or in close proximity thereto;
2) If it could instead be moved to a mined-out area, below the coal outcrop or some other feasible area;
3) The unit operator agrees to a 2-year drilling moratorium in order to permit completion of coal mining operations; and
4) The practicality of locating the unit or well on a uniform pattern with other units or wells.

Id. § 13,368(k)(2).

384. Id. § 13,368(m).

385. Id. § 13,368(g).
The pooling order must establish: (1) a unit operator authorized to drill the well and operate the spacing unit and (2) a mechanism to insure the reasonable sharing of costs among the participating and nonparticipating working interest owners. The pooling order must also allow each owner or claimant of an ownership interest to make one of the following elections:

(1) An election to sell or lease its ownership interest to the unit operator at a rate to be established by the Interior Secretary;

(2) An election to be a participating working interest owner (PWIO) and bear a share of the well's drilling risks and operating costs (including all disposal costs), etc., and receive a share of the well's production; or

(3) An election to be a nonparticipating working interest owner (NPWIO) by relinquishing all interest to the participating owners until the proceeds allocable to this share equal 300% of such share's costs. Thereafter, the NPWIO becomes a PWIO. 386

If no election is made, the owner is deemed to be leased to the unit operator under such terms and conditions as the pooling order provides. 387

"Forced pooling" insures that coalbed methane development will occur in spite of conflicting claims or owners that refuse to lease their interests. If the claimants in a spacing unit have entered into a voluntary agreement for coalbed methane development, a pooling order shall not be issued. 388

In the case of conflicting claimants, the pooling order must establish an escrow account into which the payment of costs and proceeds attributable to such conflicting interests shall be deposited and held. 389 The escrow account insures that the monetary interests of all parties are protected. The funds for conflicting claimants shall be held in the escrow account until a final resolution, either by legal determination or mutual agreement, is made. Upon resolution of the conflicting claims, the principal and accrued interest shall be dispersed to the rightful owners 390 thereof by the Interior Secretary within thirty days.

If a coalbed methane operator wants to stimulate a coal seam, he must obtain the written consent of all entities (at the time of the drilling permit application) operating, or who have the right to operate, a coal mine in the surrounding region. 391 The consent to stimulate requirement imposed by this section shall have

386. Id.
387. Id.
388. Id.
389. Each PWIO, except the unit operator, shall deposit its share of the costs allocable to its interest as set forth in the Interior Secretary's pooling order. "The unit operator shall deposit all proceeds attributable to the to the conflicting interest lessees, plus all proceeds in excess of ongoing operational expenses (including reasonable overhead costs) attributable to conflicting working interests." Id. § 13,368(b)(1)(A), (B).
390. The proportionate shares to which each party is entitled are detailed in 42 U.S.C. § 13,368(b)(2)(A)-(D) (1994).
391. The Interior Secretary shall establish the boundaries of such region pursuant to 42 U.S.C. § 13,368(j)(3) (1994). The boundaries shall be stated in terms of a horizontal and vertical distance form the point of stimulation and are based upon the maximum length, height and depth of the fracture producible in the coal seam. Id.
no bearing upon contractual rights in existence as of the effective date of EPACT.\footnote{392}{Id. § 13,368(j)(4).}

If written consent cannot be obtained, the unit operator may petition the Interior Secretary to dismiss the requirement for a consent to stimulate.\footnote{393}{Id. § 13,368(j)(2).} The request must include an affidavit stating: (1) that an entity, from which consent is required, refused to consent; (2) the efforts used to obtain consent; (3) the known reasons why consent was withheld; (4) the conditions and compensation, if any, offered to obtain consent; and (5) prima facie evidence that the proposed stimulation method will not: (i) cause unreasonable loss or damage to the coal seam (taking into consideration economics and whether there are mine plans or proposed mine plans in existence); and (ii) violate mine safety requirements.\footnote{394}{Id.}\footnote{395}{Id. In addition, a coal operator or a coalbed methane operator may seek, in the appropriate state forum, compensation for the consequences of the Interior Secretary's determination. Id. § 13,368(j)(5).}

The Interior Secretary's decision shall be in accordance with applicable Federal and State coal mine safety laws and views. Reasonable conditions, which may include conditions to mitigate economic damage to the coal seam, may be imposed by the Interior Secretary. The decision may be appealed, and interested parties may participate and comment on the proceedings.\footnote{396}{Id. § 13,368(i).}

After October 24, 1992, all coalbed methane wells that penetrate coal seams that contain remaining reserves shall provide for safe mining through the well. The mine through shall be conducted in accordance with the standards prescribed by the Interior Secretary and applicable federal and state agencies.\footnote{397}{Id. Well plugging costs should be allocated in accordance with state law or private contractual agreements.}\footnote{398}{Id. § 13,368(n).}

The venting of coalbed methane gas is allowed for purposes of mine safety by all entities having the right to develop and mine coal.\footnote{399}{Id. § 13,336.}

A portion of EPACT is titled "Coalbed methane recovery."\footnote{400}{Id.} Subsection (a) mandated that the Energy Secretary, in consultation with the Administrator of the Environmental Protection Agency (EPA) and Interior Secretary, conduct a study of: "(1) technical, economic, financial, legal, regulatory, institutional, or other barriers to coalbed methane recovery, and of policy options for eliminating such barriers; and (2) the environmental and safety aspects of flaring coalbed methane liberated from coal mines."
Within two years of the enactment of EPACT (due October 24, 1994), the Energy Secretary shall submit a report to Congress detailing the results of the coalbed methane study.\textsuperscript{401} The congressional report was filed July 1995.\textsuperscript{402}

Beginning one year from the enactment of EPACT (due October 24, 1993) the Energy Secretary, in conjunction with the EPA Administrator and the Interior Secretary, shall disseminate to the public state of the art coalbed methane recovery techniques, including information on costs and benefits.\textsuperscript{403} According to the Energy Report, the report mandated by section 13336(b) has been delayed due to lack of funding.\textsuperscript{404} The Energy Report indicated that the current strategy is to support and augment Gas Research Institute activities to implement this report.\textsuperscript{405} No expected date was listed for the completion of this report.\textsuperscript{406} The Energy Report stated that a more aggressive approach could be possible if the coalbed methane initiative proposed in the October 1993 Climate Change Action Plan is funded in 1995.\textsuperscript{407}

The Energy Secretary, in conjunction with the EPA Administrator and the Interior Secretary, was directed to establish a coalbed methane recovery demonstration and commercial application program to emphasize gas enrichment technology.\textsuperscript{408} The aspects that the program should address were as follows:

1. gas enrichment technologies to enrich medium-quality methane from coal mines to pipeline quality;
2. technologies to use mine ventilation air in power generating facilities;
3. technologies for cofiring methane recovered from mines, including from ventilation systems and degasification systems, together with coal in boilers; and
4. other technologies for using methane that the Energy Secretary considers appropriate.\textsuperscript{409}

According to the Energy Report, the Department of Energy had conducted programs, and its report would be completed in October 1994.\textsuperscript{410} The report was not, however, completed until July 1995.\textsuperscript{411} The Energy Report stated that the Department of Energy (as part of the National Academy of Sciences study) studied research, development, demonstration, and commercial application needs for "underground coal gasification."\textsuperscript{412}

\textsuperscript{401} Id.
\textsuperscript{402} U.S. DEPT OF ENERGY, REPORT TO CONGRESS: FEASIBILITY STUDY FOR COAL MINE METHANE RECOVERY AND UTILIZATION (1995) [hereinafter CONGRESSIONAL REPORT].
\textsuperscript{403} 42 U.S.C. § 13336(b) (1994).
\textsuperscript{404} O'LEARY, supra note 365, at 31.
\textsuperscript{405} Id. at 16, 31.
\textsuperscript{406} Id. at 31.
\textsuperscript{407} Id. at 16.
\textsuperscript{408} 42 U.S.C. § 13336(c) (1994).
\textsuperscript{409} Id.
\textsuperscript{410} O'LEARY, supra note 365 at 13, 31.
\textsuperscript{411} CONGRESSIONAL REPORT, supra note 403.
\textsuperscript{412} Id. at 14.
IV. Comparison of the Coalbed Methane Development Provisions of EPACT, the Virginia Gas and Oil Act (VA ACT), and the West Virginia Coalbed Methane Wells and Units Article of the Environmental Resources Act (WV ACT)

A. Public Policy

EPACT, the VA ACT, and the WV ACT, all statutes concerning coalbed methane gas, were enacted to facilitate coalbed methane development by creating workable solutions to the issues arising from competing or conflicting ownership claims. All three acts include: (a) commitments for venting of coalbed mines; (b) provisions to ensure safe recovery of coalbed methane, while preserving the mineability of coal seams; and (c) provisions for preventing waste and maximizing recovery. While the coal protective language is stronger in the WV ACT than in EPACT or the VA ACT, the general requirements for coalbed methane ventilation, future and current safe coal mining, and maximization of recovery may be found in all three acts.

The weakest encouragement for coalbed methane development is found in the WV ACT. The WV ACT states that "commercial recovery and marketing of coalbed methane should in some cases be facilitated . . . ." The use of the terms "in some cases" and "facilitated" is a watered-down version of the commitments found within EPACT and the VA ACT. The WV ACT mandates specific requirements that provide the greatest protection for coal production.

EPACT's public policy encourages coalbed methane development and aids in the resolution of competing ownership claims in states that have: (1) competing claims that impede coalbed methane development; (2) no significant coalbed methane development; and (3) no statutory scheme to encourage development. In administering EPACT, the Secretary of the Interior (the Interior Secretary) and the Secretary of Energy (the Energy Secretary) must: (1) consider coal mining plans;

415. W. VA. CODE §§ 22-21-1-22-21-29 (1994). Although the West Virginia code does not entitle this section as an act, these statutes will be referred to as the Environmental Resources Act. See also app. A for a mini-comparison and summary of the provisions of EPACT, the VA ACT and the WV ACT.
416. 42 U.S.C. § 13,368(n) (1994); VA. CODE ANN. § 45.1-361.1 (Michie 1994); W. VA. CODE § 22-21-1(a), (b)(1) (1994). Note that the VA ACT does not specifically state that venting for mine safety purposes is approved. However, the VA ACT's definition of waste excepts gas vented from methane drainage boreholes and coalbed methane wells for safety reasons. VA. CODE ANN. § 45.1-361.1 (Michie 1994). Also, most of Virginia's coalbed methane unit and pooling orders provide that coalbed methane may be vented for purposes of mine safety.
(2) preserve coal seam mineability; and (3) prevent waste and maximize recovery. In the VA ACT, the policy goals specifically address oil and gas development, not coalbed methane. These goals are broad in nature, including discussion about coal production and coal owners' rights and obligations. The VA ACT requires that it be construed to: (1) encourage and promote the safe and efficient exploration, development, production, utilization, and conservation of the Commonwealth's gas and oil resources; (2) provide gas and oil conservation; (3) recognize and protect gas or oil owners' rights within the pool; (4) ensure safe coal and mineral recovery; (5) maximize coal production and recovery without substantially affecting gas or oil owners' rights to explore, produce, or drill gas or oil wells; (6) protect the Commonwealth's citizens and environment from the risks associated with gas or oil development; and (7) recognize that use of the surface shall only be that reasonably necessary to obtain the gas or oil. The Virginia Gas and Oil Board (the Board) has the authority to issue rules, regulations, or orders to provide for the maximum recovery of coal.

The policies of the WV ACT contain strong language promoting the interest and preservation of the coal mining industry. The WV ACT states that: (1) coal value is "far greater" than that of coalbed methane; (2) coalbed methane development must protect and preserve the coal while providing for maximum coal recovery; and (3) the fullest practical recovery of both coal and coalbed methane should be encouraged. The overall public policy is to: (1) preserve coal seams for future safe mining; (2) encourage commercial coalbed methane development without adversely affecting mining safety and coal seam mineability; (3) safeguard and protect the correlative rights of coalbed methane well operators and royalty owners in a pool; (4) safeguard mineability of coal during coalbed methane removal; (5) create a state permitting procedure and authority to provide for and facilitate coalbed methane development as encouraged by EPACT; and (6) remove West Virginia from the affected state list.

B. Applicability

EPACT applies to lands in the "Affected States" where the United States owns the surface estate and/or the subsurface mineral estate and all lands in any "Affected States" that do not implement a statutory or regulatory program for coalbed methane development. As listed under EPACT, the "Affected States"

421. Id. § 13,368(d)
422. Id. § 13,368(j)(2)(E).
423. VA. CODE ANN. § 45.1-361.3 (Michie 1994).
424. Id.
425. Id.
426. Id. § 45.1-361.15.
428. Id. § 22-21-1(b).
430. Title 42 U.S.C. § 13,368(c) applied § 13,368 to any "Affected State" that has not implemented,
are Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee, and West Virginia. The following states are permanently excluded from the list of "Affected States": Colorado, Montana, New Mexico, Wyoming, Utah, Virginia, Washington, Mississippi, Louisiana, and Alabama. The VA ACT applies to all lands within the Commonwealth, whether publicly or privately owned. The WV ACT applies to all lands located therein under which a coalbed is located, including state owned or administered lands and any coalbed methane well.

C. Implementation

EPACT will be implemented by the Interior Secretary along with the Energy Secretary. The VA ACT is administered by the Director (the Director) of the Department of Mines, Minerals and Energy (DMME), the Board, and the Virginia Gas and Oil Inspector (the Inspector). The WV ACT is administered by the Chief of the Office of Oil and Gas of the Division of Environmental Protection (the Chief) and the West Virginia Coalbed Methane Review Board (the Review Board).

D. Definitions

The definitions of coalbed methane (or coalbed methane gas) contained in the three acts are very similar. EPACT defines coalbed methane gas as "occluded natural gas produced (or which may be produced) from coalbeds and rock strata by statute or regulation, a program for coalbed methane development (including pooling arrangements) within three years after being named as an Affected State. Id. § 13,368. In addition, according to the Affected States list, "Section 1339 applies to all lands within a State on the list." (1993); see Energy Policy Act of 1992, Pub. L. No. 102-486, 106 Stat. 2986 (1992) (codified at 42 U.S.C. § 13,368 (1994)); see also Jeff L. Lewin, Coalbed Methane: Recent Court Decisions Leave Ownership "Up In The Air," but New Federal and State Legislation Should Facilitate Production, 96 W. VA. L. REV. 631, 671 n.99 (1994).


433. VA. CODE ANN. § 45.1-361.16 (Michie 1994). However, no well commenced prior to July 1, 1990, shall be required to be plugged or abandoned solely for the purpose of complying with the VA ACT's conservation provisions. Id.

434. W. VA. CODE § 22-21-3(a) (1994). The WV ACT does not apply to or affect any ventilation fan, vent hole, mining apparatus, or other facility utilized solely for the purpose of venting any mine or mine area, or to the ventilation of any mine or mine area or to coal seam degasification for the mining of coal. Id. § 22-21-3(b).


437. W. VA. CODE §§ 22-21-4 and -5 (1994). The Review Board includes members of the West Virginia Shallow Review Board, the state geologist, a UMWA representative, a gas industry employee and the Director of the Office of Miners' Health, Safety and Training. The West Virginia Shallow Gas Review Board's chairman will also serve as the chairman of the Review Board. Id. § 22-21-2(a).
associated therewith.\textsuperscript{438} Coalbed methane gas, in the VA ACT, "means occluded natural gas produced from coalbeds and rock strata associated therewith."\textsuperscript{439} The WV ACT defines coalbed methane as a "gas which can be produced from a coal seam, the rock or other strata in communication with a coal seam, a mined-out area or a gob well . . . ."\textsuperscript{440} The sole difference between EPACT and the VA ACT is that the EPACT definition also encompasses occluded natural gas which may be produced. The WV ACT definition is not remarkably different. It does not specifically include coalbed methane that is produced, only that which can be produced. The WV ACT also includes mined-out areas and gob wells.\textsuperscript{441}

The definitions for coal seam contained in EPACT and the VA ACT are nearly identical.\textsuperscript{442} The WV ACT definition, however, is considerably broader than either EPACT's or the VA ACT's definition.\textsuperscript{443} By including workable and unworkable coal seams and the noncoal roof and floor of the seams, the WV ACT affords considerable protection of mines and miners. West Virginia's definition of a workable coal seam, however, is very similar to EPACT's and the VA ACT's definitions for a coal seam.\textsuperscript{444}

\section*{E. Spacing}

Each act mandates spacing requirements between coalbed methane wells and between the coalbed methane well and the surrounding property lines. Under EPACT, the Interior Secretary is charged with establishing the distance requirements within ninety days of its assertion of jurisdiction over a state.\textsuperscript{445} Only Illinois, Kentucky, and Tennessee are currently subject to EPACT control.\textsuperscript{446}

The VA ACT and the WV ACT both offer specific distance requirements. In Virginia, the spacing between coalbed methane wells is set at 1000 feet; for coalbed methane gob wells (gob wells), the distance is reduced to 500 feet.\textsuperscript{447} In

\begin{footnotesize}
\begin{itemize}
  \item 439. VA. CODE ANN. § 45.1-361.1 (Michie 1994).
  \item 440. W. VA. CODE § 22-21-2(c) (1994).
  \item 441. Id.
  \item 442. "The term 'coal seam' means any stratum of coal twenty inches or more in thickness, unless a stratum of less thickness is being commercially worked, or can in the judgment of the Secretary of the Interior foreseeably [sic] be commercially worked and will require protection if wells are being drilled through it." 42 U.S.C. § 13.368(p)(6) (1994) (emphasis added).
  \item 443. "Coal seam' means any stratum of coal twenty inches or more in thickness, unless a stratum of less thickness is being commercially worked, or can in the judgment of the Department foreseeably be commercially worked and will require protection if wells are drilled through it." VA. CODE ANN. § 45.1-361.1 (Michie 1994) (emphasis added).
  \item 444. "Coalbed' or 'coal seam' means a seam of coal, whether workable or unworkable, and the noncoal roof and floor of said seam of coal." W. VA. CODE § 22-21-2(b) (1994).
  \item 445. "Workable coal bed' or 'workable coal seam' means any seam of coal twenty inches or more in thickness, or any seam of less thickness which is being commercially mined or can be shown to be capable of being commercially mined . . . ." Id. § 22-21-2(t).
  \item 446. supra note 369 and accompanying text.
  \item 447. VA. CODE ANN. § 45.1-361.17(B)(1) (Michie 1994). Section 45.1-361.17 was amended on July
\end{itemize}
\end{footnotesize}
contrast, West Virginia sets the spacing distance between coalbed methane wells at 1600 feet. The WV ACT does not provide for a reduction of the spacing requirement for gob wells. The VA ACT contains the strictest requirement in regard to well distances from property lines. A coalbed methane well in Virginia may not be located closer than 500 feet (250 feet for a gob well) from the boundary of the acreage supporting the well, whether such acreage is a single leasehold or other tract or a contractual or statutory drilling unit. West Virginia only requires a distance of 100 feet from the outside boundary of the coal tract from which the coalbed methane is or will be produced. Again, the WV ACT does not distinguish between coalbed methane wells and gob wells.

The VA ACT does provide an exception to the coalbed methane well spacing requirements for coal operators. If the coal operator requests, spacing shall correspond to mine operations, including the drilling of multiple wells on each drilling unit. West Virginia's statutory scheme provides a mechanism to modify the statutory spacing. The WV ACT states that spacing shall be determined by a pooling order, a special field rules order, or any Review Board order.

F. Drilling Permit

EPACT, the VA ACT, and the WV ACT all provide that operators must apply for and obtain drilling permits or approval prior to the commencement of drilling coalbed methane wells. EPACT does not specify the format for a coalbed methane well permit application; it simply states that a coalbed methane well may not be drilled without the approval of the Interior Secretary. The Interior Secretary may not approve the drilling of a coalbed methane well until all provisions regarding: (1) notices, (2) spacing requirements, (3) objections, and (4) pooling are met.

In Virginia, there are specific guidelines for permit applications. The VA ACT stipulates that the Director may not issue a permit until the permit applicant

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1, 1996. The coalbed methane spacing requirements, however, were not affected. VA. CODE ANN. § 45.1-361.17 (Michie Supp. 1996).
448. W. VA. CODE § 22-21-20 (1994). If, however, all owners and operators of any affected workable coal seam agree in writing the spacing can be less than 1,600 feet. Id.
454. 42 U.S.C. § 13,368(i) (1994). Section § 13,368(j) references an application for a drilling permit. However, no provisions or guidelines for the permit application are included in EPACT.
455. Id. § 13,368(k), (m).
456. The permitting guidelines were promulgated pursuant to and authorized by the VA ACT. VA. CODE ANN. § 45.1-361.27 (Michie 1994). The regulations specifying permit application criteria are contained in Va. Oil & Gas Reg. 480-05-22.1 (1991) These regulations are currently under review by the DMME. See infra note 564.
provides written certification that the notice requirements,\textsuperscript{457} including proof thereof, have been met and that it has the right to conduct the proposed operations.\textsuperscript{458} All applications must describe the method to be used to stimulate the well and include a signed consent from the coal operator of each coal seam located within a specified distance.\textsuperscript{459}

The WV ACT also provides specific guidelines for permit applications.\textsuperscript{460} The Chief shall deny the permit if the applicant has substantially violated a previously issued permit or one or more of the rules promulgated in the WV ACT and the applicant has failed to abate or seek review of the violation.\textsuperscript{461} In addition, the Chief may not issue a permit until the applicant has filed a consent to stimulate.\textsuperscript{462} No permit will be issued unless a bond is furnished, as provided in the WV ACT.\textsuperscript{463}

G. Consent to Stimulate

Each of the three acts requires that an applicant obtain a consent to stimulate a coal seam.\textsuperscript{464} The acts also provide exceptions and/or alternative methods for the consent provisions.\textsuperscript{465}

Under EPACT, the coalbed methane well operator must have the written consent of each entity that, at the time of the drilling permit application, is operating or has the right to operate a coal mine located within certain horizontal and vertical distances.\textsuperscript{466} EPACT recognizes the contractual rights between the coalbed methane operator and the coal operator which preexisted the act's effective date.\textsuperscript{467}

The VA ACT also requires that coalbed methane permit applicants obtain a signed consent\textsuperscript{468} from the coal operator of each coal seam located within 750 horizontal feet of the proposed well location that the applicant proposes to stimulate or within 100 vertical feet above or below a coal bearing stratum that the applicant proposes to stimulate.\textsuperscript{469} As in EPACT, the VA ACT recognizes the

\begin{footnotesize}
\item[458] Id.
\item[459] Id. § 45.1-361.29(F). See infra part IV.G for the VA ACT's distance requirements.
\item[461] Id. § 22-21-6(g).
\item[462] Id. § 22-21-7(a).
\item[463] Id. § 22-21-7(a).
\item[467] Id. § 13,368(j)(4).
\item[468] VA. Code Ann. § 45.1-361.29(F)(2) (Michie Supp. 1996). The consent may be contained in a lease or other such agreement or instrument of title. Id. As of July 1, 1996, in any case where the coal owner/operator was unknown or unlocated, the consent may be provided by a pooling order issued pursuant to §§ 45.1-361.21 or -361.22. VA. Code Ann. § 45.1-361.29(F)(2)(b) (Michie Supp. 1996).
\item[469] Id.
\end{footnotesize}
existence of contractual rights or obligations arising from a coalbed methane contract or lease entered into prior to January 1, 1990, between the applicant and any coal operator. Such lease or contractual arrangement constitutes a waiver of the requirement for filing an additional signed consent.471

In the WV ACT, a coalbed methane well permit may not be issued until a consent and agreement is filed with the Chief for each owner and operator of a workable coal seam twenty-eight inches or more in thickness which is within 750 horizontal feet of the proposed well bore that the applicant proposes to stimulate or within 100 vertical feet above or below a coal seam that the applicant proposes to stimulate.472 As in EPACT and the VA ACT, the WV ACT recognizes contractual rights or obligations arising from a contract or lease between the applicant and any coal owner or operator. The existence of such a contract or lease constitutes a waiver of the requirement to file an additional signed consent and agreement.473 The waiver is not, however, contingent upon the contract or lease being in existence prior to the enactment of the WV ACT. The WV ACT does set forth certain criteria for the consent.474 EPACT and the VA ACT do not specify particular requirements.

Both EPACT and the WV ACT provide for an alternate method when a coal operator refuses to grant a consent to stimulate.475 Prior to July 1, 1996, the VA ACT did not provide an alternate procedure for: (1) coal operators that refuse to grant a consent; (2) unknown coal owners or operators; or (3) unlocatable coal owners or operators.476 Under EPACT, the applicant must request that the Secretary of the Interior make a determination regarding coal seam stimulation and file an affidavit.477 The criteria for the Interior Secretary's determination is outlined in EPACT.478

470. The effective date of the VA ACT was July 1, 1990. This act contained the first inclusion of coalbed methane provisions. VA. CODE ANN. §§ 45.1-361.1-361.40 (Michie Supp. 1990). Since the legislature approved the VA ACT on March 6, 1990, this may explain the use of January 1, 1990, as the "cut-off" date for grandfathering leases already in existence. 1990 Va. Acts 150.


473. Id. § 22-21-7.

474. The consent must state that the coal owner or operator has been provided with a copy of the permit application and all application plans and documents. In addition, the coal owner or operator must agree to the stimulation as described in the permit application. Id. § 22-21-7(a).


476. VA. CODE ANN. §§ 45.1-361.10, -361.29(F) (Michie 1994 & Supp. 1996); see also Lewin, supra note 430, at 675. In legislation effective as of July 1, 1996, the VA ACT was amended to provide a mechanism similar to EPACT and the WV ACT. In the event an applicant before the Board cannot obtain a coal owner/operator consent because the coal owner/operator cannot be identified or located, the Board may authorize stimulation of a coal seam(s). VA. CODE ANN. §§ 45.1-361.21(C)(1) and -361.29(F) (Michie Supp. 1996).


478. The Interior Secretary's determinations shall consider the following factors:

1) Concurrence with all applicable coal mine safety laws.

2) If denial was based on mine safety reasons, the Interior Secretary must seek appropriate state or federal agency views and recommendations.
The procedure under the WV ACT is very similar to that of EPACT. Under the WV ACT, an applicant may submit a request for a hearing before the Review Board and file an affidavit. The criteria for the Review Board’s determination regarding coal seam stimulation is set forth in the WV ACT. The WV ACT also places further conditions on the Review Board’s authorization to stimulate.

H. Spacing or Drilling Units

EPACT, the VA ACT, and the WV ACT all provide for the establishment of drilling or spacing units. Under EPACT, anyone claiming a coalbed methane ownership interest within a proposed drilling unit may file an application to establish the unit. EPACT does not require a hearing prior to the establishment of a unit. Instead, the Interior Secretary has the discretionary power to establish a unit. The drilling unit may be established under EPACT before notice is given to the interested parties. The first notice received by potential coalbed methane owners regarding a pending unit begins with the permitting and force pooling processes. The VA and WV ACTs do not follow this procedure.

3) Inclusion of reasonable conditions to mitigate economic damage to the coal seam.
4) Any interested party may participate in and comment on the proceedings.
5) The decision approving or denying a method of stimulation is subject to appeal.

Id. § 13,368(1)(2)(E).

479. W. VA. CODE § 22-21-7(b) (1994).

480. The Review Board’s determinations are to be made in consideration of the following factors:
1) The coal seam stimulation along with other matters relating to the application; and
2) If denial was based on safety related reasons, the Chief shall submit the request and affidavit to the Review Board and submit a copy of the application to the Director of the Office of Miner’s Health, Safety and Training. The Director shall review the application as to mine safety issues and within thirty (30) days submit recommendations to the Review Board.

Id. § 22-21-7(c), (d).

481. Any order issuing a permit in the absence of a consent must provide that the applicant furnish evidence of financial security. Id. § 22-21-13(6)(5).

The financial security must remain in force until two years after the coal is mined, thirty years after stimulation, or until final resolution of a timely action to collect the bond, whichever occurs first. Id.

If coal seam stimulation is performed absent the consent of the coal owner or operator, the applicant and well operator are liable in tort without proof of negligence for any damage to the coal seam stimulated or any other workable coal seam within 750 horizontal feet or 100 vertical feet. The applicant and well operator are also liable for damages to any mining equipment. The applicant and well operator shall indemnify and hold the coal owner and operator harmless against liability for injury or death or property damage caused by the stimulation. Id. § 22-21-13(e).

482. EPACT refers to units as spacing units. 42 U.S.C. § 13,368(f) (1994). The VA ACT and the WV ACT both reference units as drilling units. VA. CODE ANN. § 45.1-361.20 (Michie 1994); W. VA. CODE § 22-21-15 (1994). For ease of comparison, spacing and drilling units will be referenced as either drilling units or units, whether referring to EPACT, the VA ACT or the WV ACT. In addition, all references to drilling units or units shall denote coalbed methane units, unless otherwise specified.


484. “Upon receipt and approval of an application, the Secretary of the Interior shall issue an order establishing the boundaries of the coalbed methane spacing unit. Spacing units shall generally be uniform in size.” Id.

485. 42 U.S.C. § 13,368(g), (k), (m) (1994).
Under the VA ACT, the Board, on its own motion or pursuant to a gas or oil owner's application, may establish a drilling unit.\textsuperscript{486} In addition, any gas, oil, or royalty owner\textsuperscript{487} may apply to the Board for the establishment of field rules\textsuperscript{488} creating drilling units therein.\textsuperscript{493} Thus, the creation of a single drilling unit or field rules to establish drilling units is limited to the Board's motion or an oil, gas, or royalty owner's application. This limitation on the applicant creates problems in Virginia's drilling unit and pooling schemes. A coal owner can be a conflicting claimant,\textsuperscript{498} however, it cannot file an application to establish drilling units or field rules.\textsuperscript{491}

In contrast to EPACT, the VA ACT requires that all potential coalbed methane owners receive notice. The VA ACT also requires a Board hearing prior to the establishment of a drilling unit or field rules.\textsuperscript{492} In establishing a unit, the "Board shall require that drilling units conform to the mine development plan, if any, and if requested by the coal operator, well spacing shall correspond with mine operations, including the drilling of multiple coalbed methane wells . . . ."\textsuperscript{493} If a unit order will allow a coalbed methane well to be drilled into or through a coal seam, a coal owner is allowed to make specific objections to the unit formation.\textsuperscript{494} After hearing the evidence, the Board may continue the hearing to allow

\textsuperscript{486} VA. CODE ANN. § 45.1-361.20(A) (Michie 1994).

\textsuperscript{487} A royalty owner "means any owner of gas or oil in place, or owner of gas or oil rights, who is eligible to receive payment based on the production of gas or oil." \textit{Id.} § 45.1-361.1.

\textsuperscript{488} "\textit{R}ules established by order of the Virginia Gas and Oil Board that define a pool, drilling units, production allowables, or other requirements for gas or oil operations within an identifiable area." \textit{Id.}

\textsuperscript{489} \textit{Id.} § 45.1-361.20(A).

\textsuperscript{490} Although a conflicting claimant is not defined by the VA ACT, the Board has treated conflicting claimants as those persons or entities claiming ownership of a common estate, usually the coalbed methane estate. Thus, the coal owner and the oil and gas owner of a particular piece of property, if not the same party, may be conflicting claimants of the coalbed methane estate. In addition, the conflict may exist between mineral lessees, i.e., a coal lessee and an oil and gas lessee. The matter may be further complicated if there is also a coalbed methane lessee.

At a recent Board hearing, the Board directed a force pooling applicant, Equitable Resources Energy Company (EREC), to force pool surface owners as conflicting claimants. The surface owners had objected to the application claiming a mineral interest in property included within the unit to be pooled. EREC has appealed the Board's decision. Equitable Resources Energy Company Before the Virginia Gas and Oil Board, Brief in Support of Appeal (No. VGOB 96/06/18-0544) (n.d.) (copy on file with author).

\textsuperscript{491} See infra part IV.I for a discussion comparing EPACT's, the VA ACT's and the WV ACT's pooling provisions.

\textsuperscript{492} An applicant applying for a hearing to establish drilling units shall provide certified mail return receipt notice to "each gas or oil owner, coal owner, or mineral owner having an interest underlying the tract which is the subject of the hearing." VA. CODE ANN. § 45.1-361.19 (Michie 1994).

\textsuperscript{493} \textit{Id.} § 45.1-361.20(C). In addition, the Board shall consider: (1) whether the proposed drilling unit is an unreasonable or arbitrary exercise of the gas or oil owner's right to explore; (2) whether the proposal would unreasonably interfere with present or future coal or other mineral mining; (3) the acreage to be included in the order and to be embraced within each drilling unit and the shape thereof; (4) the area within which wells may be drilled on each unit; and (5) the allowable production of each well. \textit{Id.} § 45.1-361.20(B). "The setting of maximum allowable production rates shall be only for the purpose of preventing waste and protecting correlative rights . . . . However, no maximum allowable production rate shall be set for a coalbed methane gas well." VR 480-05-22.2 § 21 (1991).

\textsuperscript{494} Upon a coal owner's objection, the Board shall make its determination based on §§ 45.1-361.11
further investigation or issue a temporary order establishing provisional drilling units and field boundaries until enough data is acquired to determine field boundaries and well spacing.\textsuperscript{495} Once a drilling unit or field rules application\textsuperscript{496} is filed, no additional wells will be permitted in the pool until an order is entered or the Board provides otherwise.\textsuperscript{497} After field rules are established, if a permit application\textsuperscript{498} will potentially extend the field, the Board may require that the well be located and drilled in compliance with the field rules order.\textsuperscript{499}

The WV ACT provides that an application for a drilling unit may accompany the well permit application.\textsuperscript{500} The application may also be filed as a supplement to the permit application and must contain specific information.\textsuperscript{501} The WV ACT, like the VA ACT, requires that all potential owners of coalbed methane must receive notice; it also requires a Review Board hearing prior to the establishment of a drilling unit.\textsuperscript{502} Unlike EPACT and the VA ACT, however, the WV ACT's provisions for the establishment of a drilling unit and a pooling order appear to be a simultaneous process.\textsuperscript{503}

Another contrast in the acts is that the WV ACT requires that the Review Board set a time and place for a conference prior to the informal hearing.\textsuperscript{504} The conference includes all coalbed methane owners or claimants identified in the application that have not entered into a voluntary agreement.\textsuperscript{505} At the conference, all parties are given the opportunity to enter into voluntary agreements for

\textsuperscript{495} Id. \textsuperscript{496} VA. CODE ANN. \textsuperscript{500} § 45.1-361.20(D) (Michie 1994).
\textsuperscript{497} Id. § 45.1-361.20(E).
\textsuperscript{498} The specific guidelines and criteria for drilling unit and field rules applications are contained in the Virginia regulations promulgated pursuant to the VA ACT. VR 480-05-22.2 (1991).
\textsuperscript{499} VA. CODE ANN. § 45.1-361.20(F) (Michie 1994).
\textsuperscript{500} If a well permit application is adjacent to, but outside of, the field boundaries, the statute may apply. Id. § 45.1-361.20(G).
\textsuperscript{501} Id.
\textsuperscript{502} W. VA. CODE § 22-21-15 (1994).
\textsuperscript{503} Id. § 22-21-16(a).
\textsuperscript{504} The notice must: (1) specify a time and place for a conference and hearing on the application; (2) advise the parties notified that the applicant has filed an application for a drilling unit; (3) advise the parties that they may be present and object or offer comments to the unit; and (4) include copies of the well permit application, the drilling unit application and plat. Id. § 22-21-16(b).
\textsuperscript{505} W. VA. CODE § 22-21-17(d) (1994).
unit development. The Review Board may not issue a unit order unless the applicant submits a verified statement setting forth the conference results. In addition, if an agreement is reached at the conference, the Review Board shall find that the unit is a voluntary unit and issue an order consistent with such findings. Thus, a drilling unit may be established separately from the pooling process. However, it appears that the unit must be a voluntary one.

Under the WV ACT, the request for a unit hearing may be made by the applicant or by a coal owner or operator. The WV ACT, like the VA ACT, dictates criteria for the Review Board to consider in making determinations about the establishment of drilling units. After considering the evidence, comments, and objections presented at the hearing, the Review Board shall enter an order denying the establishment of the unit or a "pooling order" establishing the drilling unit. The "pooling order" shall: (a) establish the unit boundary; (b) authorize the drilling, operation, and production of coalbed methane well(s) from the pooled acreage; (c) establish the minimum distances for any wells in the unit and for other wells which would drain the pooled acreage; (d) designate the well(s) and unit operator; (e) establish a reasonable operator's fee for operating costs, which shall include routine well maintenance and accounting to pay all expenses, royalties, and amounts due working interest owners; and (f) make such other findings and provisions as are appropriate. All well operations within a drilling unit for

506. Id. § 22-21-17.
507. Id.
508. Id. § 22-21-17(b).
509. The Review Board shall consider: (1) the area which may be drained efficiently and economically by the proposed well(s); (2) the coal development plan, including the proper ventilation of mines or degasification of affected coal seams; (3) the coal seam's nature and character affected by the well(s); (4) the unit's surface topography and the property lines of the lands underlain by the unit's coal seams; (5) evidence relevant to the drilling unit's proper boundary; (6) the nature and extent of each coalbed methane owner or claimant's interest and whether there are conflicting claims; (7) the applicant's proposal to be the operator of the unit, whether it has a lease or agreement from the majority of the coalbed methane owners or claimants; (8) any disagreements regarding the designation of the operator and evidence to determine which operator can efficiently and economically develop the coalbed methane for the benefit of the majority; (9) whether more than one party is interested in being the unit operator and the estimated well cost(s) for drilling, completing, operating and marketing the coalbed methane, submitted by such parties; and (10) any other available geological or scientific data pertaining to the pool. Id.
510. Id. § 22-21-17(c). Under EPACT and the VA ACT, the orders and procedures for the establishment of a drilling unit and the pooling of interests are separate and distinct. 42 U.S.C. § 13368(f), (g) (1994); VA. CODE ANN. §§ 45.1-361.20, -361.21, -361.22 (Michie 1994 & Supp. 1996).
511. This subsection, W. VA. CODE § 22-21-17(c), is an apparent attempt to grant authority to the Review Board to establish field rules. The establishment of field rules is not, however, specifically authorized or addressed in the WV ACT or in EPACT.
512. W. VA. CODE § 22-21-17(c) (1994). The provisions of § 22-21-17(d), (e) appear to apply only to the pooling of interests and will be discussed in the section titled "Pooling." Based upon a review of the WV ACT, it is difficult to determine whether the order entered pursuant to an application solely for the establishment of a drilling unit would also include the provisions of § 22-21-17(d), (e). The WV ACT is not clear about the distinction between drilling units and the pooling of interests. It is difficult to determine whether the only time that a drilling unit may be established is when pooling is required.
which a pooling order has been entered are deemed to be operations on each separately owned tract, or portion thereof, within the unit.\textsuperscript{513}

\section*{I. Pooling\textsuperscript{514}}

All three acts provide for the pooling of interests in a drilling unit.\textsuperscript{515} There is only one condition for the issuance of a pooling order specifically addressed by EPACT: the Interior Secretary may not approve the drilling of a coalbed methane well "[w]here conflicting interests exist, [unless] an order under subsection (g) establishing pooling requirements has been issued."\textsuperscript{516} EPACT is not, however, clear whether this is the only criteria for approval of a force pooling application.\textsuperscript{517} A drilling unit order must be issued before an applicant may file a pooling application,\textsuperscript{518} and any entity claiming a coalbed methane interest may file the application.\textsuperscript{519} The Interior Secretary then holds a hearing on the application. If the criteria of this section are met, the Interior Secretary issues an order pooling the acreage in the drilling unit for production of coalbed methane.\textsuperscript{520} Under EPACT, prior to the issuance of a unit pooling order, all parties claiming a coalbed methane ownership interest must receive notice. In addition, each owner so notified must be given an opportunity to appear at the hearing.\textsuperscript{521}

The EPACT pooling order designates the unit operator, and, once issued, each coalbed methane owner or claimant must make an election.\textsuperscript{522} Any coalbed methane claimant not making an election is deemed to have constructively leased its interest to the unit operator. The lease terms and conditions will be included in the order.\textsuperscript{523} An escrow account will be established for the payment of conflicting claimants' proceeds.\textsuperscript{524} An EPACT pooling order may not be issued

\textsuperscript{513} Id. § 22-21-18.
\textsuperscript{514} "Forced pooling is the compulsory joinder of ownership rights in property within a proposed well spacing unit by exercise of the state's police power." John S. Lowe, \textit{Joint Ownership of Oil and Gas Rights, in Oil and Gas Law in a Nutsheil 93 (2d ed. 1988); see also Lewin, supra note 430, at 669.
\textsuperscript{516} 42 U.S.C. § 13,368(m)(2) (1994).
\textsuperscript{517} According to the legislative history of this section, a pooling order may also be issued if the established unit consists of separately owned tracts or undivided interests in a tract. Legislative History, supra note 367.
\textsuperscript{518} 42 U.S.C. § 13,368(g) (1994).
\textsuperscript{519} Id.
\textsuperscript{520} Id.
\textsuperscript{521} Id.
\textsuperscript{522} An EPACT pooling order provides that claimants make one of the following elections: (1) to sell or lease its coalbed methane ownership interest to the unit operator at a rate determined by the Interior Secretary as set forth in the pooling order; (2) to become a "participating working interest owner" and bear a share of the risks and costs of drilling, completing, equipping, gathering, operating (including all disposal costs), plugging and abandoning the well, and receive a share of production from the well; or (3) to share in the operation of the well as a "nonparticipating working interest owner" and relinquish its working interest until the proceeds allocable to its share equal 300\% of the share of such costs allocable to its interest. Thereafter, the nonparticipating owner becomes a participating owner. Id.
\textsuperscript{523} Id.
\textsuperscript{524} Id. § 13,368(h). See infra part IV.J for a discussion comparing EPACT's, the VA ACT's, and
if there is a unanimous voluntary agreement providing for the drilling and operation of the unit.\(^{225}\)

Pooling applications, under the VA ACT, are administered by the Board.\(^{226}\) Unlike EPACT, and as in the WV ACT, the VA ACT furnishes the Board with specific guidelines for issuing pooling orders.\(^{227}\) No pooling order shall be entered until the notice and hearing requirements of the VA ACT are satisfied.\(^{228}\) As in EPACT and the WV ACT, pooling orders issued pursuant to the VA ACT must include certain provisions.\(^{229}\) In addition to the general pooling provisions of section 45.1-361.21, when there are conflicting claims to coalbed methane ownership additional conditions must be met.\(^{229}\) A designated operator under a coalbed methane pooling order must have the right to conduct operations on, or have the written consent of the owners of, at least 25% of the unit acreage.\(^{531}\) When conflicting coalbed methane claims exist, "any claimant" may file a pooling application with the Board.\(^{229}\) After a pooling order is issued, a coalbed methane

the WV ACT's escrow.

525. Id.


527. An order pooling all interests in a drilling unit shall be entered when any of the following conditions apply:

1) Two or more separately owned tracts are embraced in a drilling unit;

2) There are separately owned interests in all or part of any drilling unit and those having interests have not agreed to pool their interests; or

3) There are separately owned tracts embraced within the minimum statewide spacing requirements prescribed in § 45.1-361.17.

Id. § 45.1-361.21. If a pooling application involves a coalbed methane unit, the Board shall enter an order pooling all interests or estates in the coalbed methane drilling unit when there are conflicting claims to the coalbed methane ownership. Id. § 45.1-361.22.

528. Id. § 45.1-361.21(A). The notice requirements for the pooling of units under §§ 45.1-361.21 and -361.22 are the same as that for the establishment of drilling units. See supra note 492.

529. VA. CODE ANN. § 45.1-361.21 (Michie 1994).

530. Id. § 45.1-361.22. The following coalbed methane well or unit provision presents an interesting issue: "Any party not making an election under the pooling order is deemed, subject to a final legal determination of ownership, to have leased its gas or oil interest to the coalbed methane gas well operator as provided in the order." Id. Note that the VA ACT does not include a coal owner in this statute. In practice, however, the Board has deemed conflicting claimant coal owners to be leased pursuant to the Board's pooling order. Pooling of Interests in Drilling Unit No. O-40, Docket No. VGOB-93/04/20-0361, June 23, 1993; Pooling of Interests in Drilling Unit No. L-40, Docket No. VGOB-93/04/20-0357, June 23, 1993; Pooling of Interests in Drilling Unit No. L-41, Docket No. VGOB-93/03/16-0338, June 23, 1993; Pooling of Interests in Drilling Unit SLW11, Docket No. VGOB-92/08/18-0248, October 1, 1992.

531. VA. CODE ANN. § 45.1-361.21(C)(3) (Michie 1994).

532. "When there are conflicting claims . . . upon application from any claimant, [the Board] shall enter an order pooling all interests . . . ." Id. § 45.1-361.22(A) (emphasis added). "Claimant" is not defined in the VA ACT. Therefore, under this statute it appears that a coal owner, as a coalbed methane claimant, could file a pooling application. The statute is, however, ambiguous and perhaps inconsistent. In the next subsection, the statute states, "[s]imultaneously with the filing of such application, the gas or oil owner applying for the order . . . ." Id. § 45.1-361.22(A)(1) (emphasis added). This subsection would appear to limit application filings to gas or oil owners.

The statute regarding the establishment of a unit makes it clear, however, that the coal owner may
owner or claimant either consents to be a participating operator or is afforded certain elections. The VA ACT permits the voluntary pooling of interests for development of drilling units.

not file a unit application. "[T]he Board on its own motion or upon application of the gas or oil owner shall have the power to establish or modify drilling units." Id. § 45.1-361.20(A) (emphasis added). A coal owner may not file an application to pool interests in a unit where conflicting claims do not exist. "The Board, upon application from any gas or oil owner, shall enter an order pooling all interests in a drilling unit . . . ." Id. § 45.1-361.21(A).

As noted in part IV.H, the drilling unit and force pooling limitations to specific applicants create several critical issues. A conflicting claimant, a coal owner, may file an application to force the interests in a unit which has been previously established. This same coal owner conflicting claimant is, however, unable to form a drilling unit for coalbed methane production. In addition, if conflicting owner-ship claims do not exist, a coal owner may not file a force pooling application. See supra, note 490.

These idiosyncrasies and inconsistencies in the drilling unit and force pooling schemes stem from the inclusion of coalbed methane in the 1990 revisions to the VA ACT, that, to this point, had only addressed conventional oil and gas production and regulation. Prior to 1990, coalbed methane was not defined in the VA ACT, nor included in the statutes relating to the formation of drilling units nor in the pooling statutes. Va. CODE ANN. §§ 45.1-286-45.1-361 (Michie 1986, Supp. 1988 & 1989); Va. CODE ANN. §§ 45.1-361.1-45.1-361.40 (Michie Supp. 1990); 1990 Va. Acts 150.

533. The order must prescribe the conditions under which an owner becomes a participating operator. Va. CODE ANN. § 45.1-361.21(C)(4) (Michie 1994). A participating operator shares in all reasonable operating costs, including a supervision fee. Each participating operator pays the percentage of such costs as their acreage bears to the total unit acreage. Id. § 45.1-361.21(C)(5).

534. The order must

establish a procedure for a gas or oil owner who received notice . . . and who does not decide to become a participating operator may elect either to (i) sell or lease his gas or oil ownership to a participating operator, (ii) enter into a voluntary agreement to share in the operation of the well at a rate of payment mutually agreed to . . . or (iii) share in the operation of the well as a nonparticipating operator on a carried basis . . . .

Id. § 45.1-361.21(C)(7).

The election process, especially for conflicting claimants that were leased prior to the force pooling hearing, can often be confusing as well as contested. The litigants in Columbia Nat. Resources, Inc., v. Penn Va. Resources Corp., No. L93-317 (Va. Cir. Ct., filed Aug. 20, 1993), were also involved in a dispute about elections in a hearing before the Board regarding the pooling of coalbed methane interests in drilling units situated in Wise County, Virginia. Equitable Resources Energy Company (EREC) filed six unit and force pooling applications in the Roaring Fork area of Wise County, Virginia. Columbia Natural Resources, Inc. (CNR), was an oil and gas lessee. CNR's lease provided for a one-eighth royalty. CNR claimed that it controlled the coalbed methane leasehold by virtue of its oil and gas lease. EREC, however, obtained a coalbed methane lease, subsequent to the oil and gas lease, from Penn Virginia Resources Corporation (PVRC), the coal owner (who was also the oil and gas owner and CNR's lessee). To further complicate matters, the coalbed methane lease provided for a larger royalty payment to the lessor than did CNR's oil and gas lease. In addition, EREC, CNR, and PVRC had entered into a joint operating agreement which included the area covered by the oil and gas and coalbed methane leases. (The joint operating agreement included other parties. The other parties were not, however, parties to the law suit.) As in the case of the law suit, however, the dispute was settled by a compromise agreement. The agreement provided, in part, that EREC withdraw its force pooling applications. The force pooling hearings were held, the relief granted, and the conflicting claimant escrow amounts were approved by the Board. The orders had not, however, been entered, and the Board allowed EREC to withdraw the applications. See VGOb Docket Nos. 93/10/19-0411, 93/10/19-0412, 93/10/19-0413, 93/10/19-0414, 93/10/19-0415, and 93/10/19-0416. See also app. B (copies of escrow exhibits showing ownership percentages from one of the force pooling applications).

As noted previously, under the WV ACT, the establishment of a drilling unit and a pooling order appears to be a simultaneous process.\textsuperscript{536} There are, however, provisions that appear to apply only to the pooling of interests.\textsuperscript{537}

\textbf{J. Escrow}

The establishment of escrow accounts for competing ownership claims is mandated by each act.\textsuperscript{538} Under EPACT, to safeguard the conflicting claimants' monetary interests, each pooling order must establish an escrow account into which the conflicting interests' costs and proceeds are deposited and held.\textsuperscript{539} Pursuant to the pooling order, each participating working interest owner (PWIO), except the unit operator, deposits in the escrow account its proportionate share of the costs allocable to its interest.\textsuperscript{540} In turn, the unit operator deposits all conflicting interests' proceeds, plus all proceeds in excess of ongoing operational expenses (including reasonable overhead) attributable to the conflicting interests.\textsuperscript{541} The
funds are kept in the escrow account until legal title is determined (by the legal system or by mutual agreement). Upon resolution of the competing claims, and within thirty days of notice of same, the Interior Secretary shall distribute the principal and accrued interest from the escrow account to the rightful owner(s). 542

In the VA ACT, as in EPACT, each pooling order establishes an escrow account to protect the conflicting claimants. 543 The structure of the escrow account is the same as that for EPACT. 544 Under the VA ACT, however, the unit operator must deposit only one-eighth of the proceeds attributable to the conflicting interests plus all proceeds in excess of ongoing operational expenses as provided in section 45.1-361.21 and the Board’s order regarding participating and nonparticipating owners. 545 As in EPACT, once a legal determination is made, or upon agreement of all claimants, the Board distributes the principal and accrued interest from the escrow account to the legally entitled owner(s). 546 Unlike EPACT, however, the Board must issue an order to that effect. 547 The order must be issued within thirty days of receipt of notification of the legal determination or mutual agreement. 548

As in the other acts, the WV ACT provides that pooling orders establish an escrow account. The conflicting claimants’ costs and proceeds are deposited and held in the escrow account. 549 Under the WV ACT, each PWIO, except for the operator, deposits its proportionate share of costs in the escrow account. 550 The WV ACT, like EPACT, directs that all proceeds attributable to the conflicting interests of any coalbed methane owners that are leased, or deemed to be leased, are deposited into the escrow account. 551 In addition, all proceeds in excess of ongoing operational expenses attributable to the conflicting interests, as allowed in the pooling order, are also deposited into the escrow account. 552 The WV ACT, like the VA ACT, requires that once coalbed methane ownership is judicially or voluntarily determined, the Review Board issues a revised division order distributing all amounts from the escrow account to the legally entitled owner(s). 553

K. Plugging

EPACT and the WV ACT provide that, in certain cases, coalbed methane well operators must plug their wells to provide for safe mining through in any affected coal seam. 554 The VA ACT does not, however, provide that a coalbed methane well be plugged to allow coal operators to mine through a coalbed methane well.

542. Id. § 13,368(h)(2).
543. VA. CODE ANN. § 45.1-361.22(A) (Michie 1994).
544. Id. § 45.1-361.22(A)(2), (A)(3).
545. Id. § 45.1-361.22(A)(4).
546. Id. § 45.1-361.22(A)(5).
547. Id.
548. Id.
550. Id. § 22-21-17(i)(1).
551. Id. § 22-21-17(i)(2).
552. Id.
553. Id. § 22-21-17(k).
Under EPACT, all coalbed methane wells penetrating coal seams with reserves shall provide for subsequent safe mining through in accordance with the Interior Secretary's standards. The Interior Secretary shall work in conjunction with any federal or state agencies having authority over coal mine safety. The costs for well plugging are to be allocated in accordance with state law or by private agreements, if any. EPACT, instead of the WV ACT, provides the strongest measure of protection to coal owners with regard to safe mining through of coalbed methane wells.

The VA ACT does not provide for coalbed methane well plugging to allow mining through. In fact, the VA ACT approaches this situation from a different angle. Under the VA ACT, a coal owner may object to a coalbed methane permit application if the well will be drilled into or through a coal seam. The Board must then consider whether it is feasible to enforce a drilling moratorium for a period of not more than two years in order to permit the completion of coal mining operations.

556. Id.
557. Id.
558. VA. CODE ANN. § 45.1-361.20(D) (Michie 1994).
559. Id. § 45.1-361.11(C)(3); see also VR 480-05-96 (1991) (Virginia's Regulations Governing Vertical Ventilation Holes and Mining Near Gas and Oil Wells).

The pertinent sections of the Regulations Governing Vertical Ventilation Holes and Mining Near Gas and Oil Wells are as follows:

"COALBED METHANE WELL" means a well capable of producing coalbed methane. . . .

"VERTICAL VENTILATION HOLE" means any hole drilled from the surface to the coal seam used only for the safety purpose of removing gas from the underlying coal seam and the adjacent strata, thus, removing the gas that would normally be in the mine ventilation system.

Id. § 1.

Before removing any coal within 500 feet horizontally of any permitted vertical ventilation hole (VVH) or any VVH projected in an approved permit, the mine operator must notify the VVH operator and the Chief [of the Division of Mines, or his designee]. After notice is given, the mine operator may proceed with mining operations. The mine operator shall not, however, remove any coal or conduct any mining operations nearer than 200 feet horizontally to any permitted VVH or projected VVH in an approved permit, without the consent of the Chief. This provision does not apply to mining operations in the seams which the vertical ventilation hole is intended to ventilate unless the casing extends through that seam. Id. § 12.1.

An application for a permit to conduct mining operations within 200 feet of any permitted VVH or projected VVH in an approved permit may be made at any time to the Chief by the mine operator. Certified notice of the application must be sent to the affected VVH operator. The VVH operator has a right to object to the application. The chief may make any inspection or require such information as he deems necessary. If no objection is made within fifteen (15) days, the Chief may issue the permit as submitted or with modifications as he may deem necessary. If the VVH operator files an objection, a hearing will be held. If the mine operator submits the application with proof in writing that all notified parties do not object to the application, the Chief may waive the notice requirement and issue the permit if all other conditions have been met. Id. § 12.3.

When a mine operator plans to mine in a coal seam located within 200 feet below a seam that is being vented or produced by a VVH, coalbed methane well, or gob well, the mine operator must give
The WV ACT, as in EPACT, provides that a coalbed methane well must be plugged in such a manner as to allow safe mining through by a coal owner or operator.\textsuperscript{560} Unlike EPACT, however, the WV ACT imposes a time limitation. Under the WV ACT, when any coalbed methane well is located in that portion of a coal seam that will be mined within six months, the well operator must plug the well to provide for sage mining through the affected coal seam.\textsuperscript{561} Once the coal owner/operator has given notice, the coalbed methane well operator must plug the well within sixty (60) days.\textsuperscript{562}

L. Conclusion

This comparison demonstrates that the basic premises for EPACT were borrowed from the VA ACT.\textsuperscript{563} The legislators of the WV ACT then based the legislation upon the VA ACT and EPACT requirements. As is true with most legislation and regulation, a few years of operation and application always uncover some inconsistencies and burdens not contemplated at the time of drafting. The VA ACT and the regulations promulgated thereto are no exception.\textsuperscript{564} Virginia's certified notice to the Chief, the VVH or well operator, and the Inspector. The VVH or well operator and the Inspector have the right to object to the proposed mining activity within fifteen (15) days. If the VVH or well operator or Inspector files an objection, a hearing will be held. If the mine operator submits the application with proof in writing that all notified parties have no objection to the proposed mining activity, the Chief may waive the notice requirement and issue the permit providing all other conditions have been met. \textit{id.} § 12.6.

An application for a permit to mine through a plugged VVH may be made at any time to the Chief by the mine operator. Certified notice of the application must be sent to the affected VVH's operator. The VVH operator has a right to object to the application. The Chief may make any inspection or require such information as he deems necessary. If no objection is made within fifteen (15) days, the Chief may issue the permit as submitted or with modifications as he may deem necessary. If the VVH operator files an objection, a hearing will be held. If the mine operator submits the application with proof in writing that all notified parties do not object to the application, the Chief may waive the notice requirement and issue the permit if all other conditions have been met. \textit{id.} § 12.7. The mapping and technical requirements for the above-referenced applications were omitted from this discussion.

\textsuperscript{560} W. Va. \textsc{Code} § 22-21-22(c) (1994).
\textsuperscript{561} \textit{id.}
\textsuperscript{562} \textit{id.}
\textsuperscript{563} \textit{Lewin, supra note} 430, at 671.
\textsuperscript{564} On June 21, 1994, Virginia's Governor George Allen issued Executive Order Number Fifteen which provides that state agencies must conduct "a comprehensive review of all existing regulations, to be completed by January 1, 1997, . . . , as to whether each existing regulation should be terminated, amended or retained in its current form." \textit{Exec. Order No. 15, 10 Va. Regs. Reg. 5457} (July 11, 1994). Each agency must also develop a procedure for ongoing reviews of its regulations, including evaluation and determination of the regulations' effectiveness. \textit{id.} The review schedule set forth by Order Number Fifteen provides that agencies reviewing more than 10 regulations "must complete their reviews and assessments for at least one-half of their regulations by July 1, 1995, and must complete their reviews of the remaining regulations by July 1, 1996." \textit{id.} For reviews due by July 1, 1995, final approval by the Secretaries of all agencies shall be completed by January 1, 1996. For all remaining reviews, the completion date is January 1, 1997. \textit{id.} at 5458; \textit{see also} Barry McKay, Legislative and Regulatory Update, \textsc{Landman}, Sept.-Oct. 1994, at 37. Virginia's Executive Order Number Fifteen may provide the appropriate opportunity and timely impetus to analyze not only the regulatory issues, but the statutory issues raised herein.
force pooling statutes are not clear on what elections should be given to a lessee.\textsuperscript{565} Specifically, the statute does not appear to provide for an election to assign or farmout\textsuperscript{565} the lessee's leasehold interest. This also raises an issue regarding the amount to be escrowed. The one-eighth amount contemplated by statute\textsuperscript{566} appears to be applicable to an unleased interest only. If a leased royalty interest is different, i.e. one-sixth, the statutes do not appear to be applicable. Other inconsistencies include issues involving conflicting claimants and parties entitled to relief under the VA ACT. For example, a coal owner may force pool a previously established unit where conflicting claims exist.\textsuperscript{568} This same coal owner, however, may not establish a unit\textsuperscript{569} or force pool a unit where conflicting claims do not exist.\textsuperscript{570}

Since the VA ACT was the basis for EPACT and the WV ACT, it is important that these kinds of issues that have proven to be problematic in Virginia be addressed by the legislatures and regulatory agencies in the other "Affected States" (Illinois, Kentucky, and Tennessee) prior to EPACT's deadline for implementation, October 24, 1995.\textsuperscript{571}


\textsuperscript{566} "A farmout agreement is an agreement to assign an interest in acreage in return for drilling or testing operations on that acreage." John S. Lowe, Oil and Gas Contracts, in OIL AND GAS LAW IN A NUTSHELL 378 (2d ed. 1988).


\textsuperscript{568} "When there are conflicting claims . . . upon application from any claimant, [the Board] shall enter an order pooling all interests . . . ." Va. Code Ann. § 45.1-361.22(A) (Michie 1994) (emphasis added). See supra note 532.

\textsuperscript{569} "[T]he Board on its own motion or upon application of the gas or oil owner shall have the power to establish or modify drilling units." Va. Code Ann. § 45.1-361.20(A) (Michie 1994) (emphasis added). See supra note 532.


\textsuperscript{571} The "Affected States" list published on April 19, 1993, in the Federal Register provided that "[i]f these [Affected States have not removed themselves from this list within 3 years from the date of publication of this notice [April 19, 1996], then they will be covered by Federal regulations implementing the Act." 58 Fed. Reg. 21,589 (1993). David R. Stewart, with the Bureau, has indicated that the Bureau concluded that October 24, 1995, was the effective date for the implementation of EPACT's coalbed methane provisions for the "Affected States." Interview I, supra note 370. The October 24, 1995 effective date is mandated by 42 U.S.C. § 13,368(c) (1994). See also supra notes 369 and 374.
V. An Analysis of Whether Under the Terms of an Explicit Lease of Coalbed Methane the Lessor May Ventilate Gas from a Coal Mine That Interferes with Safe Mining Operations in a Nonownership Jurisdiction

Under Illinois law, a coalbed methane lease does not grant the lessee title to the coalbed gas until actual possession is achieved. The lease does reserve in the lessor the right to conduct all activities necessary to the successful removal of coal from the coal seam. A lessee's claim that the lessor is in violation of a requirement of the lease is untenable. Therefore, under established principles of property law in relation to the ventilation of coalbed methane from the coal seam by the coal owner, the lessor has the right to ventilate coalbed methane from the mine, notwithstanding a grant of exclusive rights in the lessee to produce the gas from the coal seam.

In July 1993, Finite Resources filed a complaint in Saline County, Illinois, alleging waste of its property by the defendant, Western Fuels. The complaint alleged that Western Fuels vented coalbed methane gas from coal seams in violation of a coalbed methane lease between the plaintiff and the defendant.

Coalbed methane ownership disputes have spawned several judicial opinions over the last dozen years. The factual setting traditionally places coal interest owners in competition with oil and gas interest owners for the right to produce and/or ventilate coalbed methane from coal seams. The courts have consistently recognized the rights of parties to explicitly grant or reserve an interest in coalbed methane in severance deeds or leases. Absent explicit language, however, the courts attempt to apply legal principles to resolve ownership disputes. Finite presents a unique issue in coalbed methane litigation. Stated succinctly, the issue is whether an explicit lease of coalbed methane rights infringes upon the right of the coal owner (who is also the coalbed methane gas lessor) to vent coalbed methane for mining purposes in a nonownership jurisdiction.

Western Fuels drilled Safety Henk #1 well on land covered by a coalbed methane lease (the Lease). Western Fuels has ventilated seventy-five million cubic feet of coalbed methane from the Safety Henk #1 well in violation of paragraph

572. Illinois recognizes the nonownership theory of oil and gas. See Murbarger v. Franklin, 163 N.E.2d 818, 820 (III. 1960) (finding that oil and gas are minerals, but by reason of their fugacious qualities are incapable of ownership distinct from the soil); see also Updike v. Smith, 39 N.E.2d 325, 327 (III. 1942) (holding title to oil and gas does not vest until it is found and reduced to possession); Conover v. Parker, 137 N.E. 204, 206 (III. 1922) (concluding that oil and gas while in the earth are not capable of ownership distinct from the soil).


574. See, e.g., NCNB Texas Nat'l Bank v. West, 631 So. 2d 212 (Ala. 1993) (finding that due to "nonownership" regime, right to produce/vent coalbed methane depends upon physical location of gas in coal seam, gob zone or other stratum); U.S. Steel Corp. v. Hoge, 468 A.2d 1380 (Pa. 1983) (holding that owner of the coal estate has right to vent/produce coalbed methane within the coal seam).

575. Other fact specific issues raised in the complaint and counterclaim, such as whether plaintiff was in breach of the lease agreement, are not addressed herein.
10(c) of the Lease. Finite Resources claimed damages in excess of $250,000 for Safety Henk #1.\textsuperscript{576} Western Fuels asserted that Finite Resources acknowledged Western's "right, title, and interest" in the coalbed methane. Therefore, Finite Resources is estopped from denying Western Fuel's title. Western Fuels claimed that its title is only transferred to Finite Resources upon actual capture of the gas by Finite Resources.\textsuperscript{577}

In accordance with rights reserved under paragraph 8 of the Gas Lease, Western Fuels drilled Safety Henk #1 "under direct compulsion by the Federal Mine Safety and Health Act."\textsuperscript{578} Western Fuels argued that compliance with the Federal Mine Safety and Health Act (FMSHA) is an affirmative defense to Finite Resources' claims.\textsuperscript{579} Western Fuels further asserted that Finite Resources acquiesced in the selection of the location and in the permitting and drilling of Safety Henk #1 well. Therefore, Finite Resources' acquiescence constituted approval of the drilling of the well.\textsuperscript{580} Western Fuel also contended that Finite Resources condoned the use of the well for ventilation of coalbed methane from the coal mine.\textsuperscript{581} In addition, Western Fuels counterclaimed that Finite Resources was in violation of the Lease and that such violations damaged Western Fuels.\textsuperscript{582}

The relevant Lease provisions were as follows:

\begin{quote}
IN CONSIDERATION of the bonus payment set forth in paragraph 2 herein and all other obligations of Lessee [Finite Resources] stated below, Lessor [Western Fuels] HEREFBY GRANTS, DEMISES, LEASES, AND LETS to Lessee, all of Lessor's title and interest, but only to the extent in fact legally owned or held by Lessor, in the Gas underlying the tract(s) of land ("Land") situated in the County(ies) of Saline, State of Illinois, as described in Exhibit A attached hereto and incorporated by reference herein ("Leasehold"). "Gas" shall mean herein all Coal Bed Gas and other gaseous hydrocarbons and their respective constituent products or any one or combination of them within or above the mined or unmined coal seam . . . .

8. COAL MINING OPERATIONS. Lessor reserves to itself, and to its successors, assigns, and lessees, the prior right, in preference to all rights, title and interest granted under this Lease, to mine and remove
\end{quote}

\textsuperscript{576} Complaint at 2, Finite Resources (No. 93-L-47).
\textsuperscript{577} Answer and Counterclaim, supra note 274, at 4.
\textsuperscript{578} Id. at 5.
\textsuperscript{579} Id. at 6.
\textsuperscript{580} Id. at 7.
\textsuperscript{581} Id.
\textsuperscript{582} Id. at 10. This section will not analyze whether Finite Resources was in violation of the Lease or whether Finite Resources acquiesced in the drilling of Safety Henk #1 since these issues are independent of the coalbed methane ownership scheme. Instead, the focus will encompass Finite Resources' allegations and Western Fuels' defenses of estoppel and compliance with federal law. These claims squarely frame the issue addressed in this discussion.
coal from the Land by any method, together with all related activities necessary and appropriate thereto . . . .

10. PROTECTION OF MINE VOID RESERVOIR. Lessor agrees that it will protect the integrity of the mine void reservoir of the Land by requiring in each oil and gas lease on the land made by the Lessor that the Lessee of the oil and gas . . . .

(c) requires the plugging of any well that enter the mine void and is not brought under control within two days [twenty-four hours].

Where grants in mineral rights have created separate interests in the coal estate and the oil and gas estate without explicitly including coalbed methane in either grant, the courts have tended to imply a reservation of the coalbed methane interest in the coal estate. The Alabama case law, however, was modified by the Alabama Supreme Court in NCNB Texas Nat'l Bank v. West. The West decision applied the nonownership theory to establish a two-tiered interest based on the physical location of the gas. When the coalbed methane is located in a coal seam, the coal interest owner has the right to produce or vent the coalbed methane in order to facilitate coal mining. Where the coalbed methane has migrated to other strata or is contained in a previously mined gob zone, the oil and gas interest owner has the exclusive right to produce the gas (at least when the grant of gas rights includes "all gas").

A unifying principle of all of the decisions is that the coal estate owner has the right to conduct all activities necessary to the successful extraction of coal. This result follows from the common law tradition of allowing an owner of an interest in land to interfere with the possessory rights of others to the extent that interference is necessary to the enjoyment of that interest. Some examples include: (1) an easement by necessity; (2) the right of coal owners to maintain a physical presence on the surface estate in order to exploit a severed coal estate; and (3) the right of oil and gas lessees to drill through coal seams to produce hydrocarbons from underlying strata. In the context of mineral development, the logic of this principle was enunciated by Chief Justice Paxton of the Pennsylvania Supreme Court over one hundred years ago:

The discovery of new sources of wealth, and the springing up of new industries which were never dreamed of half a century ago, sometimes present questions to which it is difficult to apply the law, as it has heretofore existed. It is the crowning merit of the common law,
however, that it is not composed of ironclad rules, but may be modified to a reasonable extent to meet new questions as they arise. This may be called the 'expansive property of the common law.' Mining rights are peculiar and exist from necessity, and the necessity must be recognized, and the rights of the mine and land owners adjusted and protected accordingly.\(^{587}\)

To put this principle in the context of prior coalbed methane litigation, one must compare the relative rights of coal owners versus oil and gas owners. While the owners of oil and gas may have their rights infringed by the ventilation of coalbed methane, a hydrocarbon gas, the safe production of coal requires that coalbed methane be extracted from the mine. Justice Paxton's words are particularly prophetic in this instance because coalbed methane production is an industry barely conceived of a half century ago.

The problem presented in \textit{Finite}, however, challenges the fundamental logic of prior case law. Where a right in coalbed methane is explicitly granted, allowing the owner of the coal estate to freely ventilate the gas would undermine the entire property right, not just a small portion thereof. The problem cannot be resolved simply by relying on principles developed for a different subset of cases dealing with the same problem.

Instead, one must look to the specific language of the lease as it would be understood under Illinois law. Here we encounter a situation where equitable considerations will inexorably perish on the shores of plain contractual language. If legal analysis were "fair," then \textit{Finite} Resources would be granted, at the very least, a right of first refusal to remove and capture all coalbed methane interfering with mining operations. The Lease, however, does not explicitly or impliedly grant this right. Whether, as has been suggested, the Lease is poorly drafted or whether Western Fuels, recognizing the potential for this exact problem, preserved its rights in as innocuous language as possible is open for debate. What is clear is that \textit{Finite} Resources is claiming an exclusive right to drill for and produce coalbed methane. Western Fuels, on the other hand, claims it granted only the right to take possession of the coalbed methane and that title to the same would not pass until \textit{Finite} Resources captures and removes the coalbed methane. Under Illinois' nonownership theory of oil and gas rights\(^{588}\) and the granting language of the Lease, Western Fuels appears to have the better argument.

Nonownership theory recognizes the fugacious nature of oil and gas.\(^{589}\) Simply

\(^{587}\) Chartiers Block Coal Co. v. Mellon, 25 A. 597, 598 (Pa. 1883).

\(^{588}\) \textit{See} cases cited supra note 572.

\(^{589}\) Several Indiana cases have recognized the nonownership theory. \textit{See} Board of Comm'rs v. Heap, 294 N.E.2d 182, 184 (Ind. 1973) (finding that oil is an incorporeal hereditament possessing transitory characteristics until it is reduced to actual possession); Halbert v. Hendrix, 95 N.E.2d 221, 223 (Ind. 1950) (holding that the landowner of the lands does not have absolute title to the oil and gas in place as corporeal real property, but rather has the exclusive right to explore for oil and gas and reduce it to possession and actual ownership); \textit{see also} Besing v. Ohio Valley Coal Co., 293 N.E.2d 510 (Ind. 1973); Moon Coal Co. v. Riggs, 56 N.E.2d 672 (Ind. 1944). Kentucky courts have also embraced the nonownership theory. \textit{See} Rice Bros. Min. Corp. v. Talbott, 717 S.W.2d 515, 516 (Ky. 1986) (finding
put, the legal regime refuses to recognize any title in gas until it has been successfully captured. Under strict nonownership theory, if gas is caused to horizontally migrate from one leasehold interest to another, then no liability attaches regardless of how notorious the human act, if any, causing the migration. Traditionally, the migration has been considered in the context of horizontal movement within a single hydrocarbon bearing sand. This is probably the result of how oil and gas has typically been produced. Vertical migration would not normally serve to change the leasehold interest since wells are produced from pay sands regardless of their depth. Vertical migration does become significant, however, when coal interests are added to the equation. The coal owner has a property right and an interest in ventilating gas only in strata at specific depths. Once the coalbed methane has escaped the coal seam, the coal owner can no longer rely on the necessity of ventilation. For this reason, the Alabama Supreme Court recognized nonownership theory as applying to vertical migration in *NCNB Texas Nat'l Bank v. West.*

Regardless of whether the Illinois courts will recognize nonownership theory as applying to vertical migration, the legal regime itself presents some of the most significant obstacles to recovery by Finite Resources. Based upon its nonownership theory, the State of Illinois cannot recognize the ownership of the coalbed methane by Western Fuels or Finite Resources until it has captured the gas. The lease purports to convey the gas "only to the extent legally owned or held by Lessor." Because Illinois did not recognize any ownership of the gas by Western Fuels, the lease cannot have transferred more than that property right to Finite Resources. This is essentially the point of Western Fuels' first affirmative defense. The defense claims that Finite Resources recognized Western Fuels' title. Of course, because of the nonownership regime, Western Fuels did not, in fact, hold title to the gas. The defense does correctly state, however, that Finite Resources does not own the gas until capture.

Since Finite Resources does not own the coalbed methane in the ground, it seems that Finite Resources cannot prevail on a claim that anything has been taken from it other than the coalbed methane production rights. If Western Fuels had taken possession of the coalbed methane, then Finite Resources may have had a cognizable claim. Since the defendants used Safety Henk #1 well solely for the

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that because oil and gas are fugacious in nature, they are not owned in the same manner as surface and solid minerals beneath the surface; ownership is limited to possession of an exclusive right to explore, and if found, to reduce it to possession and ownership); see also Sellars v. Ohio Valley Trust Co., 248 S.W.2d 897 (Ky. 1952).

590. 631 So. 2d 212 (Ala. 1993). The findings in the *West* case necessarily require a nonownership theory. The court found that once the coalbed methane gas leaves the coal seam, it belongs to the gob gas owner. *Id.* at 219. Thus, this conclusion is dependant upon the nonownership theory — oil and gas while in the earth are not capable of ownership distinct from the soil. Conover v. Parker, 137 N.E. 204, 206 (Ill. 1922).

purpose of ventilating the coalbed methane, other provisions of the lease suggest that they are not liable for the loss to the plaintiff.

Paragraph 8 of the Lease reserves in the lessor the right to conduct all activities necessary to the removal of coal. Assuming that under the FMSHA, Western Fuels was required to ventilate the mine before continuing mining operations, then ventilation was a necessary activity. Finite Resources did not bargain for any term in the lease explicitly allowing it to conduct ventilation procedures. Allowing Western Fuels to drill Safety Henk #1 well is in accord with prior coalbed methane case law, notwithstanding the explicit grant of rights in the coal seam gas. Even if Finite's failure to include a right of first refusal to conduct ventilation activities was an oversight, the courts are not in a position to rewrite the terms of the lease.

Finally, the plaintiff's claim that Western Resources is in violation of paragraph 10(c) of the lease is untenable. Paragraph 10 mandates provisions that the lessor is required to include in any subsequent lease of oil and gas rights not covered by the terms of the Lease. It can only be violated if Western Resources granted an oil and gas lease that does not contain these provisions. The provisions are intended to protect Finite Resources from oil and gas production that interferes with its property interest. Western Fuels' ventilation activities are simply not the kind of activities contemplated by paragraph 10. Paragraph 10(c) requires the plugging of any well "not brought under control within twenty-four hours." Western Fuels can reasonably argue that the Safety Henk #1 well operates exactly as it was intended and is therefore perfectly under control.

592. Id. at 4.
593. Id. at 5-6.
594. Id. at 6.
595. Although in this part the author has concentrated upon analysis of the nonownership theory as applied to the Alabama and Illinois coalbed methane cases, a listing of the common law ownership theories of the other "Affected States" and the "Non-Affected States" are listed below. These common law theories are relevant to coalbed methane ownership analysis in these states. See Cowlings v. Board of Oil, Gas & Mining, 830 P.2d 220 (Utah 1991); Frank J. Allen, An Argument for Enforced Unit Development of Oil and Gas Reservoirs in Utah, 7 Utah L. Rev. 197 (1960).

1. Affected States
   A. Ownership in Place
      1. Pennsylvania — United States Steel Corp. v. Hoge, 468 A.2d 1380, 1383 (Pa. 1983) (holding that gas may be owned prior to being recovered from its natural underground habitat); Hamilton v. Foster, 116 A. 50, 52-53 (Pa. 1922) (finding that gas belongs to the landowner in fee, so long as it remains part of the property, ownership is lost only through grant or upon the gas leaving by migration); Westmoreland & Cambria Natural Gas Co. v. DeWitt, 18 A. 724, 725 (Pa. 1889) (holding that gas belongs to the owner of the land and is part of it, so long as it remains a part of the land). Pennsylvania has been removed from the "Affected States" list. See supra notes 369, 374.
      2. Tennessee — Murray v. Allard, 43 S.W. 355, 358 (1897) (concluding that unreserved minerals form part of the land and as such are real estate).
      3. West Virginia — Consolidated Gas Supply Corp. v. Riley, 247 S.E.2d 712, 715 n.4 (W. Va. 1978) (holding that oil and gas in place are real estate); Bogness v. Milam, 34 S.E.2d 267 (W. Va. 1945) (finding that oil and gas in place are real estate). Note however, that prior to the Bogness decision, West Virginia courts followed Wood County Petroleum Co. v. West Va. Transp. Co., 28 W. Va. 210 (1886) (holding that oil and gas, because of their fugacious nature, were not subject to absolute ownership until it is reduced to actual possession). West Virginia has been removed from the "Affected States" list. See
supra notes 369 & 374.

B. Nonownership

1. Illinois — Murbarger v. Franklin, 163 N.E.2d 818, 820 (Ill. 1960) (finding that oil and gas are minerals but, by reason of their fugacious qualities, are incapable of ownership distinct from the soil). See also Updike v. Smith, 39 N.E.2d 325, 327 (Ill. 1942) (holding that title to oil and gas does not vest until it is found and reduced to possession); Conover v. Parker, 137 N.E. 204, 206 (Ill. 1922) (holding that oil and gas while in the earth are not capable of ownership distinct from the soil).

2. Indiana — Board of Comm'r's v. Heap, 294 N.E.2d 182, 184 (Ind. 1973) (finding oil is an incorporeal hereditament possessing transitory characteristics until it is reduced to actual possession); Halbert v. Hendrix, 95 N.E.2d 221, 223 (Ind. 1950) (holding that the owner of the lands does not have absolute title to the oil and gas in place as corporeal real property, but rather has the exclusive right to explore for oil and gas and reduce it to possession and actual ownership). See also Besing v. Ohio Valley Coal Co., 293 N.E.2d 510 (Ind. 1973); Monon Coal Co. v. Riggs, 56 N.E.2d 672 (Ind. 1944), rel'tg denied, 57 N.E.2d 593 (Ind. 1944). Indiana has been removed from the "Affected States" list. See supra notes 369 and 374.

3. Kentucky — Rice Bros. Mineral Corp. v. Talbott, 717 S.W.2d 515, 516 (Ky. 1986) (concluding that because oil and gas are fugacious in nature, they are not owned in the same manner as surface and solid minerals beneath the surface. Thus, ownership is limited to possession of an exclusive right to explore, and if found, to reduce it to possession and ownership). See also Sellers v. Ohio Valley Trust Co., 248 S.W.2d 897 (Ky. 1952).

4. Ohio — Northwestern Ohio Natural Gas Co. v. Ollery, 67 N.E. 494, 496 (Ohio 1903) (holding that as oil and gas are migratory in character . . . they belong to him upon whose lands they are captured. No one else can have any ownership in them, and a man can be awarded only that which he owns); Kelley v. Ohio Oil Co., 49 N.E. 399, 401 (Ohio 1897) (finding that petroleum oil is a mineral, and while in the earth, it is part of the realty, and should it move from place to place . . . it forms part of that tract of land in which it tarries . . . until it reaches a well and is raised to the surface, and then for the first time it becomes the subject of a distinct ownership separate from the realty). See also Back v. Ohio Fuel Gas Co., 113 N.E.2d 865, 868 (Ohio 1953) (discovering that many authorities hold that the owner of the land surface does not own any oil or gas which may be "in place" thereunder) (citing Kelly v. Ohio Oil Co., 49 N.E. 399 (Ohio 1897); Nonamaker v. Amos, 76 N.E. 949 (Ohio 1905). Ohio has been removed from the "Affected States" list. See supra notes 369 & 374.

II. Non-Affected States

A. Ownership in Place

1. Colorado — Moshiel: v. Lininger, 274 P.2d 965, 967-968 (Colo. 1954) (opining that until oil is severed from the land, it remains a part of; and is conveyed with the land) (citing Central Pipe Line Co. v. Hutson, 82 N.E.2d 624, 532 (1948) (holding the fugacious oil or gas in place under a tract of land is a part of the land)).

2. Mississippi — Whittington v. Whittington, 608 So. 2d 1274, 1278-1278 (Miss. 1992) (adhering to the ownership-in-place theory — minerals are capable of ownership in the ground before discovery and extraction or in place). See also Thornhill v. System Fuels, Inc., 523 So. 2d 983, 986 (Miss. 1988).


4. New Mexico — Terry v. Humphreys, 203 P. 539 (N.M. 1922) (finding that oil and gas, whether in the ground or by sale converted to a fund, are treated as real estate).

B. Nonownership

1. Alabama — NCNB Tex. Nat'l Bank v. West, 631 So. 2d 212 (Ala. 1993) (determining oil and gas under the nonownership theory, which recognizes the migratory nature of oil and gas and requires actual possession to establish ownership).
VI. The Pooling Clause

Pooling provisions, as noted above, are favored under the recent statutory enactments to encourage production of coalbed methane. They have the benefit of allowing for unified treatment all potential interests, thus promoting the orderly development of the coalbed methane. Many contracts relating to development, such as leases, contain pooling clauses. This is a contractual method for achieving the same development purpose as statutory pooling provisions.

An oil and gas lease pooling clause is

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2. Louisiana — Gliptis v. Fifteen Oil Co., 16 So. 2d 471, 474 (La. 1944) (holding that a person does not own the fugitive minerals, such as oil and gas, which are in, or which may pass through, the earth underneath the surface; "while the owner of the land is not the owner of the fugitive minerals therein . . . he has the exclusive right to explore his land . . . and to extract therefrom, and reduce to possession and ownership, all such minerals as may be found in the earth beneath the surface of his land").

3. Utah — Cowling v. Board of Oil, Gas and Mining, 830 P.2d 220, 224-225, (Utah 1991) (finding that the law of capture applies unless modified by state law; the Utah Oil and Gas Conservation Act of 1983 modified the law of capture, but did not wholly displace it); Bennion v. Utah Board of Oil, Gas & Mining, 675 P.2d 1135, 1137 (Utah 1983) (holding that under the common law rule of capture, a property owner could drill a well on his own land and recover oil or gas by drainage from his neighbor; Utah Oil and Gas Conservation Act of 1955 enacted to protect correlative rights). Although Utah has not overturned the nonownership theory for oil and gas, recent cases have slightly modified this theory to protect the correlative rights of adjacent landowners. The protection of correlative rights is more indicative of the ownership in place theory. The Utah legislature provided a statutory definition of correlative rights. The "opportunity of each owner in a pool to produce his just and equitable share of the oil and gas in a pool without waste." Cowling, 830 P.2d at 225. The Cowling court held that the statutory definition of correlative rights did not give mineral owners absolute rights to all the oil or gas under their land. Instead the court held that the term "without waste" was meant to ensure maximum recovery of the particular resource. Id. A landowner's correlative right is a unique property right. Before a spacing order is entered, a correlative right is merely a right to an undetermined interest in an oil or gas pool beneath one's land. It is nothing more than an "opportunity" to produce a "just and equitable share" of oil and gas "without waste." Id. "In addition, each owner of land on an established oil-bearing structure becomes entitled to share in production by reason of his land ownership, and he thereby acquires 'correlative rights' as that term is defined by our legislature and not simply a 'fair opportunity' to produce the oil which underlies his land before his neighbor does." Frank J. Allen, An Argument for Enforced Unit Development of Oil and Gas Reservoirs in Utah, 17 UTAH L. REV. 197, 206 (1960) (citations omitted). Note that the VA ACT, VA. CODE ANN. §§ 45.1-361.1-361.41 (Michie 1994 & Supp. 1996) also provides a statutory definition of "correlative rights." See VA. CODE ANN. § 45.1-361.1 (Michie 1994) Virginia's definition is similar to that of Utah. There are no cases in Virginia, however, that discuss the effects of the statutory language upon Virginia's common law theory of ownership. This analysis should also be considered in other jurisdictions providing statutory definitions of correlative rights.

4. Virginia — Couch v. Clinchfield Coal Corp., 139 S.E. 314 (Va. 1927) (holding that a landowner cannot complain of a neighbor who in pumping on his own property drains the oil, gas, or water from his lands) (citing Higgins Oil and Fuel Co. v. Guaranty Oil Co., 82 So. 206 (La. 1919) (holding that an owner of land does not own the fugitive oil beneath it)).

5. Washington — Charon v. Clark, 96 P. 1040, 1042 (Wash. 1908) (finding that water, gas and oil belong to the owner of the land, and are a part of it so long as they are on it or in it; once they escape, the title of the former owner is gone, i.e., water, gas and oil are minerals ferae naturae).

See supra notes 101, 102 for a discussion of the ownership and nonownership theories.
designed to permit the lessee, by unilateral action, to modify the respective rights of the lessor and lessee under the lease by authorizing the lessee to combine all or possibly a part of the leased premises with other land for purposes of operations under the lease and, with rare exception, for purposes of sharing production from the unit so formed.\textsuperscript{596}

The usual effect of a pooling clause is "to permit the lessee to pool or combine all or part of the leased premises with other land for purposes of creating an operating unit."\textsuperscript{597} All or part usually refers to the land area covered by a lease such that the mineral resource(s) of one land area is pooled with that of another. Different minerals and formations can, however, be pooled separately or specifically precluded from pooling. A court's interpretations of the scope and breadth of a pooling clause, with regard to specific minerals or formations not delineated in leases, are discussed herein in an effort to find an analogy to the coalbed methane pooling issue. For example, interpretation of the effect of the Pugh Clause on the habendum clause of a lease, where multiple formations might be pooled, may be indicative of whether coalbed methane would be assumed to be pooled with conventional gas. Interpretation of this clause might also be of interest if there is a potential that production of conventional gas in a unit will not "hold" any lease on coalbed methane past the primary term of the lease if the coalbed methane formation was not produced (perhaps because it was not technologically possible during the primary term of the lease).

Pooling tracts of land can be done only with the express authority of the lessor and only to the extent provided in the lease.\textsuperscript{598} All or part of the mineral estate may be pooled, depending on the terms of the lease agreement. Because pooling clauses are intended to be for the mutual advantage of both lessor and lessee, they are to be liberally construed, unless the pooling is not to the parties' mutual advantage.\textsuperscript{599} Mutual advantage is, however, oftentimes broadly construed. For example, in \textit{Expando Production Co. v. Marshall},\textsuperscript{600} the Texas Civil Appeals Court concluded that it was to the lessor's and lessee's advantage that a pooling unit be enlarged after production had commenced.\textsuperscript{601} But it is difficult to imagine

\begin{footnotesize}
\begin{enumerate}
\item Williams & Meyers, Law, \textit{supra} note 291, § 48.3 at 188.
\item Id. at 191.
\item In Jones v. Killingsworth, 403 S.W.2d 325 (Tex. 1965), the court opined: [T]he lessors' land may be pooled only to the extent stipulated in the lease. . . . To say that a lessee can pool lessors' land with units of any size permitted by the Railroad Commission would defeat the intention of the parties to restrict the size of the units to the size prescribed by governmental authority. Absent express authority, a lessee has no power to pool interests in the estate retained by the lessor with those of other lessors. \textit{Id.} at 327-28. Pooling may, however, be authorized by statute. See, e.g., VA. CODE ANN. §§ 45.1-361.21; 45.1-361.22 (Michie 1994 & Supp. 1996).
\item Jones, \textit{supra} note 598, at 327-28.
\item Id. at 259 (finding that expansion of oil unit from ten to twelve acres was in the best interest of the lessor and lessee because a second well drilled on the two additional acres would have been
\end{enumerate}
\end{footnotesize}
how pooling a coalbed methane formation with a conventional gas formation, after
development has commenced, can be advantageous to all parties in the circum-
stances where there are conflicting claimants (either as lessors or as lessees). The
requirement of mutual advantage would seem to militate against a liberal con-
struction of "gas pooling" to include coalbed methane in the situations where
production cannot be allocated between formations nor attributed to a specific
source.602

VII. Validity of Pooling

There are two issues involved in the validity of pooling "(a) does the exercise
fall within the authority granted by the pooling clause; and (b) . . . is it a proper
exercise under the circumstances?"603 "An exercise of the pooling power will not
be invalidated because of the purpose for which it is exercised unless the purpose
is restricted by a special provision . . . or unless the purpose is inconsistent with
a broad purpose stated in the clause."604 If exercise of a pooling clause exceeds
the lessee's authority, the lessor's interest is not bound, and the lessor's royalty
interest is not apportioned.605 Where a lease authorizes pooling on an acreage
basis, for example, pooling on a productive sand basis is not valid.606 Good faith
of the lessor is not material in this situation.607

Valid exercise of the pooling power may depend on complying with certain
formalities, but if there are no formalities, the only requirement is that the exercise
be unequivocal.608 A pooling agreement entered into by all the lessors would be
unequivocal.609 Simply a decision by the lessee to pool would not be unequivocal
if the lessee were to pool leases of more than one lessor.610 But execution of the
pooling clause does not require written consent of the lessor.611

expensive for the lessee and would have reduced the production of the first well by as much as 50%).
The rationale for the 50% reduction is not clear from the case.

1991), Amoco argued that the Ute's execution of voluntary communitization agreements when Amoco
was producing coalbed methane gas (and the Utes had knowledge of this) supported Amoco's theory that
no distinction should be made between conventional gas and coalbed methane gas. But see NCNB Tex.
Nat'l Bank v. West, 631 So. 2d 212 (Ala. 1993) (assuming that such allocation can be made).

603. WILLIAMS & MEYERS, LAW, supra note 291, at 203.
604. Id. at 213. Restrictions might include the size of unit, location of leases, substances,
government action or allocation of production. Id. at 213-17.
605. Id. at 203.
608. WILLIAMS & MEYERS, LAW, supra note 291, at 205.
609. Id.
610. Id.
required that the lessee obtain the written consent of the lessor in order to effect such unitization.");
acceptance of royalty checks with knowledge of unitization can be a ratification of such unitization).
The pooling clause must also be "exercised while the lease is in effect in accordance with all of its terms." Thus, if all formations are not held beyond the primary term by production from the unit, the lease may have terminated, and any attempt at pooling would be invalid. Similarly, if the unit includes two leases and one is terminated, the unit is no longer valid.

VIII. Restricting Pooled Substances and/or Horizontal Severance

The pooling clause may authorize pooling of a specific substance only or may exclude a specific substance. If leases are pooled as to gas only, the pooling can hold the leases such that oil can be produced from another lease in the unit area even after the primary lease term has expired.

In Texas and Kansas, liquid hydrocarbons have been found to be pooled with the gas, despite terms of the leases which only allow unitization of the gas rights or specify no pooling of acreage as to oil. It is also safe to assume that each well will be subject to a separate classification (as an oil or gas well). Where the unit has been formed for gas, royalty on production from a well classified as a gas well will be apportioned, while royalty on production from a well classified as an oil well will not be apportioned. It would seem to follow that where an area is pooled, either voluntarily or force pooled for gas (or oil and gas), royalty on production of coalbed methane would not be apportioned unless coalbed methane was considered "gas." However, the treatment of oil and coalbed methane may not be entirely comparable. At least part of the rationale for separate pooling of oil and gas is that the effective units of the substances are often very different, with gas units being substantially larger than oil units.

614. WILLIAMS & MEYERS, LAW, supra note 291, at 114.
615. Martin v. Kostner, 644 P.2d 430, 435 (Kan. 1982) (concluding proper unitization as to gas rights only authorized lessee to drill for oil on other leases in the unit; the leases did not expire for all minerals except gas which had been unitized for production by the first well in the unit).
616. Skelly Oil Co. v. Savage, 447 P.2d 395 (Kan. 1968). The Skelly court found the liquid to be pooled with gas because: (1) of the inability to produce the liquids separate from the gas (ld. at 402); (2) it is common for area wells to produce both liquids and gas (ld. at 399); (3) the owners did not specifically agree to pool or not to pool (ld. at 397); (4) it distinguished from casinghead gas from the standpoint of construction of mineral deeds and oil and gas leases (ld. at 399); (5) it recognized in the various jurisdictions as a component of natural gas and that title to the gas carries with it the title to all of its components (ld. at 398-59); (6) it is reasonable for practical administration (ld. at 399); (7) liquids were not an explicit exclusion from the term gas rights is casinghead gas produced from oil wells (ld.); (8) the parties were well aware that a gas well would produce condensates (ld.); (9) the non-drillsite mineral owners would have no adequate remedy to protect themselves from drainage (ld. at 401).
617. Blocker v. Christie, Mitchell & Mitchell Co., 340 S.W.2d 320 (Tex. Civ. App. 1960). The court used the Berenstein Bears analogy for distillate (looks, tastes, smells, stored and sold as oil), but found that it is a constituent of gas. Id. at 321. The court also based its holdings on: gas in the well; gas leaving the well; the gas conveyed was not limited to any particular kind or character of gas; the term 'natural gas' includes numerous elements or component parts. Id.
618. WILLIAMS & MEYERS, LAW, supra note 291, at 201.
In general, if the lessor horizontally subdivides the mineral interest after leasing, e.g., by formations, the royalty on production from the conveyed formation will be paid entirely to the grantee of the formation (subdivided interest).\textsuperscript{620} If the subdivided area is unitized, royalties would be shared only by the owners of an interest in the producing formation.\textsuperscript{621} But all strata are not necessarily pooled. Whether or not all strata are pooled may depend on the language of the lease and the history of the time of leasing.\textsuperscript{622} In Oklahoma, for example, there is a presumption that production from a unit will hold all formations, despite a Pugh clause, if all strata are leased without limiting language and the lease is subsequently stratified (through assignment of part of the lease).\textsuperscript{623} But where the lease is originally pooled only for gas, it is assumed that production of an oil well would not constitute production from the leases in the unit, even though the lease was for oil and gas.\textsuperscript{624}

In Texas, recognition of strata in one provision of the lease does not mean that all clauses of the lease will assume such recognition.\textsuperscript{625} A lease may preclude unitization of all strata, but a Pugh clause in the lease may be interpreted to recognize production from unitized strata as satisfying the production requirement of nonunitized strata.\textsuperscript{626} This situation may differ where minerals are leased separately:

\[ \text{Production from the unit satisfy the habendum clause of the leases pooled as to all formations covered by the leases. . . . [But] where the lessee has acquired separate leases on separate formations, the leases do not merge and . . . the lease on one formation will not be held by production from a unit which includes the other formation. . . . This raises the question as to the validity of a deliberate exercise of the pooling power so as to pool separate formations under separate leases. It is submitted that the pooling power should not be capable of being so exercised in the absence of some special provision in the pooling clause or in the absence of communication between the formations or other conditions that make it feasible to develop and operate the pooled area as a unit, and where there are separate formations, they are not likely to be subject to unit development and operations.} \textsuperscript{627}\]

primarily for oil shall not substantially exceed 80 acres each in area, and units pooled primary for gas shall not substantially exceed 640 acres each in area.

\textsuperscript{620} WILLIAMS & MEYERS, LAW, supra note 291, at 200.
\textsuperscript{621} Id.
\textsuperscript{622} Rist v. Westhoff Oil Co., 385 P.2d 791 (Okla. 1963).
\textsuperscript{623} Id. at 795.
\textsuperscript{624} WILLIAMS & MEYERS, LAW, supra note 291, at 201 (citing Diggs v. Cities Service Oil Co., 241 F.2d 425 (10th Cir. 1955)).
\textsuperscript{626} Id. at 754.
\textsuperscript{627} WILLIAMS & MEYERS, LAW, supra note 291, at 194 (citing Gibson Drilling Co., v. B & N Petroleum, Inc., 703 S.W.2d 822 (Tex. Ct. App. 1986)).
Depending on whether all formations can be pooled together or whether separate formations must be pooled, issues of after-development pooling and multiple pooling may arise. Pooling may be invalid if it occurs after production has been established, and the pooling clause only allows it for the purposes of development. Either the lessor of the productive or unproductive acreage may protest. If the clause allows pooling after production, the validity of the exercise would be determined based on a good faith standard. Whether successive pooling involving the same lease is valid depends on the pooling clause and the purpose of the successive pooling. If the second pooling does not modify a unit created in the first pooling, it is probably valid. "For example, if the pooling power has been exercised to create a unit containing a part of the leased premises, the exercise of the power may be repeated to create another unit containing another part of the leased premises." While "part of the leased premises" may usually refer to a part of the acreage, it might also refer to a separate formation since unit leases may be horizontally severed.

IX. Cross-Conveyances

The American Association of Professional Landmen (AAPL) Form 610-1982 Joint Operating Agreement (JOA) expressly provides that "[n]othing contained therein shall be deemed an assignment or cross-assignment of interests covered hereby." "Decisions involving pooling agreements containing such disavowals have consistently respected the express intent of the parties and have rejected any implication that a cross-conveyance has occurred. There appears to be no reason that the same respect should not be given to the disclaimer in the operating agreement." One Texas court has held that the operating agreement "was in

628. WILLIAMS & MEYERS, LAW, supra note 291, at 210. The effect would be to reduce the royalty payment for productive acreage.

629. Id. While the lessor would gain a royalty, the pooling might serve to hold acreage of a lease ready to expire.

630. Id. at 211 (stating that if the lease provides for pooling "before or after production" or "when in the lessee's judgment it is necessary").

631. Id.; see also Texaco, Inc. v. Lettermann, 343 S.W.2d 726, 731 (Tex. Civ. App. 1961) (holding that if successive pooling is allowed, its validity is evaluated on good faith standard).

632. WILLIAMS & MEYERS, LAW, supra note 291, at 208. If the clause allows "pooling from time to time" successive pooling is, in general, valid. See also Expando Prod. Co. v. Marshall, 407 S.W.2d 254, 260 (Tex. Civ. App. 1966) (concluding that a second pooling was valid, even after several years, although no specific language in clause permitted successive pooling).

633. WILLIAMS & MEYERS, LAW, supra note 291, at 208.

634. Id. at 208-09 (citing Kenoyer v. Magnolia Petroleum Co., 245 P.2d 176, 180 (Kan. 1952)). If the pooling clause does not explicitly provide for pooling only part of the lease, such a power may be inferred from an assignment clause, lack of contiguity of the lease or form waiver by the lessor (by accepting a unit agreement covering only part of the lease).

635. American Association of Professional Landmen, Model Form Operating Agreement, ¶ 111.B (Form 810-1982).

636. Gary B. Conine, Property Provision of the Operating Agreement, Oil and Gas Joint Operating Agreement, ROCKY MNT. MINERAL LAW FOUND. MINERAL LAW SERIES 2-1 (1990) (citing Stumpf v. Fidelity Gas Co., 294 F.2d 886 (9th Cir. 1961)).
effect a unitization of the tract conveying an interest in reality," but it is not clear whether the JOA contained a disclaimer. It appears that the JOA is generally viewed as simply a contractual relationship. Thus, the JOA gives expression to the underlying relationship between the parties. It is the underlying relationship, i.e., primarily any unitization agreement, that is explored in the subsequent discussion for potential analogies to coaled methane gas development.

While it is relatively clear that the JOA does not itself create a cross-conveyance of interest, pooling and unitization are held to affect a cross-conveyance in Illinois, Texas, Mississippi, and California, but not in Utah or Oklahoma. If a cross-conveyance of interest is made, the pooling involves a transfer of real estate which requires a writing for compliance with the statute of frauds. The writing must include a description of the pooled area sufficient to satisfy the statute. But a pooling clause that does not specify maximum

637. *Id.* at 2-10 (citing Gilling Oil Company v. Hughes, 618 S.W.2d 874 (Tex. Ct. App. 1981)). This holding is somewhat suspect, implying that the JOA should not be held to convey any interest.

638. Except for the *Gilling* case discussed in text accompanying note 637 *supra*.


640. Ragsdale v. Superior Oil Co., 237 N.E.2d 492, 494 (Ill. 1968) ("[U]nitization of separate tracts for the purpose of sharing in the production of oil creates a single ownership of the entire unit by the owners of the several tracts making up the unit, subject to the terms of the oil and gas leases."); Ego Oil Co. v. Garner, 450 N.E.2d 375, 378 (Ill. App. Ct. 1983) (citing *Ragsdale*, 237 N.E.2d at 494 ("A unitization agreement has the effect of creating a single leasehold ownership for the unitized tract.")).

641. Kellin v. Brownlee, 517 S.W.2d 568 (Tex. Civ. App. 1974). The court found that a mineral lessee's filing of a designation declaring all of the section a pooled and consolidated leasehold estate effected a cross-conveyance of the royalty interest of the various lessors. *Id.* at 571. This gave the defendants an undivided interest in all of the section. *Id.* By virtue of the pooling and consolidation, the grantor acquired for the duration of such pooling and consolidation, the undivided interest in all of the unit which they did not own. *Id.*; Renwar Oil Corp. v. Lancaster, 276 S.W.2d 774, 776 (Tex. 1955) (concluding that an oil and gas lease is a conveyance of reality, and unitization agreement is conveyance of reality) (citing Veal v. Thomason, 159 S.W.2d 472 (Tex. 1942)); *Veal*, 159 S.W.2d 472, 476 (Tex. 1942). Veal involved lessors who executed several identical instruments that described all of the land in the unit tract, and provided that it be developed and operated as one area. The court stated that the "effect of the lease contract here involved is to vest all the lessors of land in this unitized block with joint ownership of the royalty earned from all the land in such block." *Id.* at 476.

642. Phillips Petroleum Co. v. Peterson, 218 F.2d 926 (10th Cir. 1954) (finding that the pooling agreement did not effect a cross-transfer, based on the language of the pooling agreement and a disclaimer in the unitization agreement). The pooling agreement stated "then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land . . . ." *Id.* at 928. The disclaimer stated "[n]othing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement." *Id.* at 930.

643. Garvin v. Pettigrew, 350 P.2d 970 (Okla. 1958). The court did not address the effect of the pooling agreement, but the lessors expressly disclaimed any interest in the property of others.


645. *Id.* (citing James v. NICO Energy Corp., 878 F.2d 1365 (5th Cir. 1988) (holding that a letter which gave investor option of participating in drilling of oil wells on "additional 700 acres (approximately) to be designated" by drilling company did not designate subject property with sufficient specificity under Texas statute of frauds)); Vela v. Pennzoil Prod. Co., 723 S.W.2d 199 (Tex. Ct. App. 1986) (holding that a property description is not sufficient or deficient as a matter of law).
pooling acreage is not void for lack of specificity.\textsuperscript{646} The implications of cross-conveyance include: (1) failure of title would break the unitized tract and affect all participants;\textsuperscript{647} (2) all royalty owners are indispensable parties to a suit;\textsuperscript{648} (3) all the lessors of land in the unitized block are joint owners or joint tenants of all royalties reserved in each of the several leases;\textsuperscript{649} and (4) venue is affected.\textsuperscript{650} Furthermore:

Each new co-lessee is in privity of estate with the lessor and thereby acquires liability for the performance of both express and implied covenants in the lease and for compliance with statutory or regulatory duties imposed on working interest owners . . . . Subsequent conveyances must be carefully drafted to ensure that the appropriate transfer occurs with respect to geographical areas within the unit . . . . [and] As tenants-in-common with respect to all leases in the contract area, the parties assume certain fiduciary duties associated with that relationship, particularly following reacquisition of the property following a foreclosure sale and in circumstances constituting waste.\textsuperscript{651}

\textbf{X. Conclusion}

The recent advent of coalbed methane development and its emergence as an important natural resource have generated legal issues that have defied resolution in the past. The sparse and fact specific case law does not necessarily answer the legal issues for all jurisdictions. These decisions only indicate that the language in the severance and lease instruments are the basis on which courts will hinge their decisions. However, more recent legislative activity at the state and federal levels has helped define the ownership rights of coalbed methane developers.

The purpose of the coalbed methane provisions of the National Energy Policy Act (EPACT)\textsuperscript{652} is to emphasize development of technologies for coalbed methane recovery and encourage resolution of the ownership issues surrounding

\textsuperscript{646} Tiller v. Fields, 301 S.W.2d 185, 190 (Tex. Civ. App. 1957) (pooling clause is necessarily indefinite as to location; lessee must pool in good faith).
\textsuperscript{647} Ragsdale v. Superior Oil Co., 237 N.E.2d 492, 494 (Ill. 1968).
\textsuperscript{648} Id.; see also Veal v. Thompson, 159 S.W.2d 472 (Tex. 1942). Compare Hardie v. Chew Fish Yuen, 65 Cal. Rptr. 594 (Cal. Ct. App. 1968) in which a lease granted to the lessee all mineral rights on two adjoining properties and stated that the lessors leased their combined properties to lessee. \textit{Id.} at 595. Lessors were to receive 5\% of gross yield from all mining on the properties. \textit{Id.} This created a right to royalties in the four joint lessors. \textit{Id.} at 597. The lease was not severable and could not be canceled piecemeal. \textit{Id.} The two lessors who owned adjoining property were indispensable parties and had to be joined in action by grantees of one of the properties to quiet title against the lessee. \textit{Id.}
\textsuperscript{649} Veal, 159 S.W.2d at 472.
\textsuperscript{650} Renwar Oil Corp. v. Lancaster, 276 S.W.2d 774, 775 (Tex. 1955) (the true nature of the suit of is dependant upon plaintiff's pleading and the relief sought; though called a declaratory judgment action, if it is essentially for recovery of land and to quiet title within the venue statute exception, venue lies in county where land is situate).
\textsuperscript{651} Conine, \textit{supra} note 636, at 2-10.
\textsuperscript{652} 42 U.S.C. § 13,368 (1994).
coalbed methane. Section 13368 was limited to coalbed methane deposits in "Affected States" where the United States owned the surface or the subsurface mineral estates. Subsection (c), however, applied section 13,368 to any Affected State that has not implemented, by statute or regulation, a program for coalbed methane development (including pooling arrangements) within three years (October 25, 1995) of being named an Affected State. Thus, EPACT created a program by which the federal government will administer coalbed methane development if an Affected State does not implement its own program.

The substantive law of EPACT was patterned after the Virginia coalbed methane statutes adopted in 1990. The Affected States, as originally determined pursuant to EPACT, included Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee, and West Virginia. West Virginia's coalbed methane statutes, enacted March 12, 1994, provided it with a successful petition for removal from the Affected States list. In addition, Ohio, Pennsylvania, and Indiana were removed from the Affected States list. This recent state activity in Ohio, West Virginia, Pennsylvania, and Indiana is a direct result of the EPACT legislation.

Since the VA ACT was the basis for EPACT and the WV ACT, it is important that the issues that have proven to be problematic in Virginia be addressed by the legislatures and regulatory agencies in the other Affected States (Illinois, Kentucky, and Tennessee).

653. See infra note 654 and accompanying text.
654. 58 Fed. Reg. 21,589 (1993). The implementation of the provisions of § 13,368 on non-federal lands is to be administered by a state established "State Board." Once a state is listed as an "affected state," it has one (1) year to establish a board or the Secretary of Energy will act as the board. Legislative History, supra note 367.
655. VA. CODE ANN. §§ 45.1-361.1-361.40 (Michie Supp. 1990). West Virginia, Ohio, Pennsylvania, and Indiana have, however, been removed from the list of "Affected States". Supra notes 369 and 374.
659. See supra notes 369, 374.
660. See supra notes 369, 374.