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United States Steel Corp. v. Hoge: A Judicial Decision Which Fails to Solve the Coalbed Gas Ownership Problem

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UNITED STATES STEEL CORP. v. HOGE: A JUDICIAL DECISION WHICH FAILS TO SOLVE THE COALBED GAS OWNERSHIP PROBLEM

In the past decade the search for new and alternative energy sources has brought to the forefront a number of legal problems which have restricted the ability of industry to produce certain resources. Coalbed gas¹ is one potential energy source whose development has been significantly impeded by legal questions. Ironically, the technical problems in coalbed gas exploitation, which in the past appeared insurmountable, have become secondary to the more complicated ownership issue.²

The uncertainty surrounding the ownership of coalbed gas rights has hampered development of this vital energy source.³ Surface owners and gas lessees have attempted to lay claim to the lucrative exploitation rights of this fuel while coal owners have sought to protect their coal from the intrusions of coalbed gas development. The absence of effective legislative action and the continuing friction between competing commercial interests have further clouded the ownership question. The national search for energy has hastened the need for an answer to the ownership question, which until recently, had never been addressed by an appellate court. The decision by the Superior Court of Pennsylvania in United States Steel Corp. v. Hoge,⁴ is the first attempt by an appellate court to resolve the ownership issue.

I. THE ORIGIN OF THE PROBLEM

The coalbed gas ownership issue can be traced to two sources: (1) the severance of either coal or gas from the surface of a tract of land,⁵ and (2) the

¹ Coalbed gas is composed primarily of methane and is contained in or near the coal of most seams. See Byer, Malone & Hunt, Preliminary Resource Assessment of Coalbed Methane in the U.S., 1982 SPE/DOE UNCONVENTIONAL GAS RECOVERY SYMPOSIUM OF THE SOCIETY OF PETROLEUM ENGINEERS 99. Coalbed gas has historically been referred to as methane gas, firedamp, or coal gas. See McGinley, Legal Problems Relating to Ownership of Gas Found in Coal Deposits, 80 W. Va. L. Rev. 369 (1978) (National Coal Issue) [hereinafter cited as McGinley, Gas in Coal]. See also Deul & Skow, Speeding Coal Mining Operations by Recovering and Utilizing Methane From Coal Beds, COAL AGE, July 1975, at 104 [hereinafter cited as Deul & Skow, Speeding Coal Mining].

² For a discussion on the general legal implications of the coalbed gas ownership issue, see Bowles, Coalbed Gas: Present Status of Ownership Issue and Other Legal Considerations, 1 E. Min. L. Inst. 7-1 (1980) [hereinafter cited as Bowles, Coalbed Gas]; McGinley, Gas in Coal, supra note 1; Craig & Myers, Ownership of Methane Gas in Coalbeds, 24 ROCKY MTN. MIN. L. INST. 767 (1978) [hereinafter cited as Craig & Myers, Ownership of Methane]; Olson, Coalbed Methane: Legal Considerations Affecting its Development as an Energy Resource, 13 TULSA L.J. 377 (1978) [hereinafter cited as Olson, Coalbed Methane]; Williams, On Leasing Gas from Coal Seams, 47 W. Va. L. Q. 211 (1941).

³ To appreciate the magnitude of this potential energy source, one need only consider the quantities of coalbed gas in question. Estimates of coalbed gas reserves range up to 40% of conventional natural gas reserves. See infra notes 52-54 and accompanying text.


⁵ The problem does not manifest itself in cases where there has been no mineral severance from surface ownership since the owner would hold title to all minerals under the tract. There are
historical separation of the oil and gas and coal industries.6 Traditionally, severance deeds conveying coal and/or gas ownership have not made provisions for the ownership or commercial production of methane gas located in coal seams.7 This omission was based on the assumption that coalbed gas was not commercially producible or was simply the coal miners' problem.8

When faced with ambiguities in deeds, courts historically have relied upon rules of construction to determine the extent to which mineral estates were conveyed. Various results have been obtained in the determination of the character, extent and duration of mineral estates and accompanying rights.9 However, before the Hoge case, no court had been called upon to determine whether a severance deed included the rights to coalbed gas.

The coalbed gas issue is complicated by several factors which have made the coal and gas interests incompatible. First, methane gas found in coal mines has long been considered an enemy of coal miners.10 Industry practice has been to vent the gas out of the mine and into the atmosphere to avoid the danger of explosion. This right to ventilate the gas is included in many severance deeds and ventilation is required by state and federal safety laws.11 Since coalbed gas comprises only one to two percent of coal's energy value,12 coal owners seek the fastest and most efficient way of removing the gas to avoid damage to the coal or delay in mining operations.13 Second, most existing technology has made coalbed gas recoverable only by techniques which have detrimental or, at least, uncertain effects on the future minability of the coal.14 Although prior degas-

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6 West Virginia Law Review, Vol. 85, Iss. 4 [1983], Art. 13

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sification of coal makes mining safer and in some cases faster, the loss of coal, increased mining costs and legal ownership questions make the exploitation of coalbed gas less attractive to coal operators. Finally, even if the coal owner was interested in the commercial development of coalbed gas, most coal operators are simply not equipped to engage in gas production.

II. Summary of the Court's Opinion

The facts of the Hoge case are typical of the coalbed gas ownership issue. A predecessor in title to U.S. Steel acquired "all the coal" of the Pittsburgh or River seam underlying two tracts of land by severance deed in 1920. Along with the title to the coal, the severance deed provided for mining rights and privileges which included the right of mine ventilation. The defendant surface owners leased the oil and gas rights to M. L. Cunningham in 1976. The lease provided for the standard 1/8 royalty and included a provision for the payment of a 1/8 royalty on all methane gas production as well. In August of 1977, U.S. Steel identified for development and recovery a coal field which included the two tracts in question and began production. The gas operator commenced drilling on one tract in January of 1978 with the express purpose of recovering and extracting coalbed gas in the Pittsburgh seam. U.S. Steel sought an injunction to prevent the surface owners and oil and gas lessee from drilling into and producing gas from the Pittsburgh coal seam. U.S. Steel also sought to have title to the coalbed gas quieted.

The trial court, after issuing a temporary injunction, conducted lengthy hearings on the matter before denying a permanent injunction and finding that the gas owner had title to the coalbed gas. The court issued detailed findings of fact and law which delineated the rights of the coal and gas owners and lessee based on the court's construction of the severance deed and interpretation of Pennsylvania court decisions. The court also sought to limit the damage that the coalbed gas product would inflict on the coal seam by placing restrictions on the production methods usable by the gas operator.

The Superior Court of Pennsylvania affirmed the trial court chancellor and concurred with his findings of law. Writing for a three judge panel, President Judge Cercone concluded, as had the trial court, that the title to coalbed

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18 Id. at 3-4.
19 See Kindley, Methane Options, supra note 6, at 4.
17 450 A.2d at 163-64.
19 The court held that the gas lessee could not "hydrofrack" the coal seam to increase production or use other production methods which would interfere with the minability of the coal. United States Steel Corp. v. Hoge, No. 78-682, slip op. at 38-39 (C.P., Greene Co., Pa., March 24, 1980). "Hydrofracking" is a process whereby hydraulic stimulation of the stratum is employed to increase the flow of gas. The process can cause damage to the coal seam and to the mine roof thereby making mining more costly or impossible. See National Petroleum Council, supra note 12, at 15.
gas was in the gas owner.\footnote{Id. at 173.}

The appellate court initially noted the general principles of construction for severance deeds. The court's application of these principles sought to give effect to the intent of the parties at the time the deed was made by considering the deed in its entirety in light of conditions existing at the time of its execution.

The first argument made by U.S. Steel and rejected by the court was the "stratum ownership" or "container space" theory.\footnote{The "stratum ownership" or "container space" theory asserts that severance of the coal creates a horizontal division of the land. Under this theory, all of the substances found in the coal seam are conveyed by the severance. Cases dealing with the theory have arisen when cross haulage or gas storage rights were asserted by a mineral owner after the particular mineral in the severed stratum has been removed. For a discussion on the application of the theory to the coalbed gas ownership issue, see Bowles, Coalbed Gas, supra note 2, at 7-18; McGinley, Gas in Coal, supra note 1, at 380-82; Craig & Myers, Ownership of Methane, supra note 2, at 778-80.} The court traced the legal nature of a coal severance through past Pennsylvania court decisions and held that "title to the coal in place is [not] title to the space made vacant by the coal removed."\footnote{Id. at 173.} The court quoted and adopted Craig and Myers' conclusion that: "The owner of each mineral has all the rights of a fee owner as to that mineral in addition to the right to use the surface insofar as such use is necessary to extract the mineral."\footnote{The court rejected the contention that past cases, which referred to coal as land, hold mineral estates to be true corporeal hereditaments. Instead, the court found that a mineral deposited within the land and its ownership create only a divisible incorporeal right. Id.} Thus, the court held that the coal owners didn't own the stratum and all of its contents, but rather just the coal therein.

The court also rejected U.S. Steel's second argument that the coal and coalbed gas were commonly identified at the time of the coal severance and, therefore, they should be considered only distinct parts of the same substance. The court discussed the trial court's findings on the origin and presence of coalbed gas and determined that knowledge of the presence of coalbed gas did not make the coal and gas inseparable. Additionally, the court noted that, under the Pennsylvania Dunham\footnote{Dunham & Shortt v. Kirkpatrick, 101 Pa. 36 (1882).} rule, gas is considered to be a non-mineral substance when a conveyance purports to convey all the minerals in a tract of land.\footnote{The distinction could be important in determining when the ownership issue arises in Pennsylvania. Most states have, however, held a conveyance of all minerals to include gas. See, e.g., Burdette v. Bruen, 118 W. Va. 624, 191 S.E. 360 (1937); See also, Bowles, Coalbed Gas, supra note 2, at 7-15.} Observing that there was little distinction between coalbed gas and natural gas at the time of the severance, the court seemed to conclude that the common identification of coal and coalbed gas was an invalid assertion.

The third argument made by U.S. Steel, also rejected by the court, was that the reservation of the right to drill through the coal seam by the grantors in the original severance did not give the gas lessee the right to recover coalbed gas from the Pittsburgh seam. The court noted the trial chancellor's finding that at the time of the severance, the industry practice was to extract gas from
any stratum which would produce in paying quantities; which had historically included coal seams.\textsuperscript{27} As additional support for rejecting the U.S. Steel argument, the court observed that Pennsylvania adhered to the "ownership in place" theory\textsuperscript{28} of title to oil and gas. The court concluded that U.S. Steel's contention assumed that coalbed gas was intended to be included in the original severance. Reading the reservation of drilling rights strictly against the grantor, the court construed the provision to mean that at best the surface owners were aware of the possible existence of gas at the time of severance and that they had attempted to avoid liability for drilling through the severed coal.\textsuperscript{29}

U.S. Steel's fourth contention was that the right to ventilate coalbed gas granted by the severance deed gave the coal owner an absolute right to the coalbed gas in place. The court rejected that argument, and followed the rationale of the trial court\textsuperscript{30} in applying Pennsylvania case law by analogy. The court held that the coal operator could capture gas released during mining instead of venting it, and retain the profits of the sale.\textsuperscript{31} The court added that this does not give the coal operator title to coalbed gas in place.\textsuperscript{32}

The final U.S. Steel argument, also rejected by the court, was that public policy considerations calling for the safe exploitation of energy resources favor the coal owners' position. The court responded that the legal conclusion that the severance of the coal was not intended to pass title to the coalbed gas was not outweighed by the public policy factors presented.\textsuperscript{33} The court did not accept the contention that equitable considerations\textsuperscript{34} mandated a result different from the legal conclusion. The court also observed in a footnote that future transfer instruments must be drawn carefully to include coalbed gas disposition in order to avoid potential litigation.\textsuperscript{35}

### III. Aftermath of the Decision

Although the Hoge decision followed the analytical approach predicted by several commentators,\textsuperscript{36} the decision fell short on several key points leaving a...

\textsuperscript{27} 450 A.2d at 169; See also, United States Steel Corp. v. Hoge, No. 78-682, slip op. at 7 (C.P., Greene Co., Pa., March 24, 1980).

\textsuperscript{28} The "ownership in place" theory provides that oil and gas beneath a tract of land is capable of absolute ownership, sale, and severance while in the ground. It differs from the "nonownership" or \textit{ferae naturea} theory which provides that oil and gas is only owned when it is captured. See Bowles, \textit{Coalbed Gas}, supra note 2, at 7-17; See also Hoge, 450 A.2d at 169.

\textsuperscript{29} 450 A.2d at 170.

\textsuperscript{30} \textit{Id.} at 170-72.

\textsuperscript{31} 450 A.2d at 172.

\textsuperscript{32} \textit{Id.}

\textsuperscript{33} \textit{Id.} at 173.

\textsuperscript{34} Although the court did not specifically identify what equitable considerations it was referring to, it would seem the court was considering the public policy considerations of mine safety and conserving energy resources while providing for their efficient production at low cost. See \textit{id.} at 173.

\textsuperscript{35} \textit{Id.} at 173 n.17.

\textsuperscript{36} See Bowles, \textit{Coalbed Gas}; supra note 2, at 7-22 and Craig & Myers, \textit{Ownership of Methane}, supra note 2, at 806-07.
number of issues unresolved. The shortcomings are important in the assessment of the decision’s precedential value.

A. Analytical Shortcomings of the Decision

The stratum ownership cases cited by the court dealt with issues not directly related to the coalbed gas ownership problem. Two of the cases dealt with cross haulage rights of the coal operator in the space left vacant by the coal mining process. The focus of those cases was whether the coal operator could continue to use the empty stratum to haul coal from adjoining tracts as operations progressed. Another case dealt with the drilling way of necessity a gas owner/lessee has through coal not owned by him in order to reach gas beneath the coal. None of the cases directly addressed the scope of the coal owners title when the coal was still in place beyond finding that the gas owner/lessee had a right to drill through the coal to reach lower strata. The cases support the conclusion that the coal owner does not own the stratum left vacant after the coal has been removed—but they do not necessarily imply that the coal owner has a right only to the coal in the seam.

Additionally, the court disposed of the argument that the coal and coalbed gas are inseparable by concluding that there has been no historical distinction between natural and coalbed gas. But, unfortunately, the court’s summary conclusion did not directly answer the argument. The origin of the gas and the inclusion of a right of ventilation in the severances support the conclusion that historically there was no distinction between coal and coalbed gas. Furthermore, since at the time of the severance coalbed gas was considered the coal owner’s “problem”—a nuisance fraught with danger, the probable intention of the parties would seem to have been to convey more than just coal and the right to ventilate the gas.

Finally, the court may have underestimated the magnitude of the public policy considerations. The public interest or equitable considerations, which the court said did not mandate a different result from the legal principles involved, require a solution which will allow for the development of coalbed gas. The safety benefits and resource potential of coalbed gas favor development, but the court’s holding will prevent or, at least, hinder it. The public sector

39 That right was specifically reserved by the surface owners in the severances in the Hoge cases. See 450 A.2d at 164 n.3.
40 See generally, McGinley, Gas in Coal, supra note 1, at 378-80.
41 450 A.2d at 168-69.
42 There has been debate over the origin of coalbed gas, but most authorities now agree that the gas originated in the coal seam during the period when coal developed. See Deul & Skow, Speeding Coal Mining, supra note 1, at 104; Craig & Myers, Ownership of Methane, supra note at 767-68; See also United States Steel Corp. v. Hoge, No. 78-682, slip op. at 12 (C.P., Greene Co., Pa., March 24, 1980); 450 A.2d at 169.
43 See generally McGinley, Gas in Coal, supra note 1, at 389-90.
44 See infra text accompanying notes 52-58.
and the court-determined coalbed gas owner are both denied the value of the gas under Hoge.

B. Practical Results of the Holding

The court's decision has, as a practical matter, left the parties with legal rights and little ability to enjoy them. The trial court's restrictions on the gas owner, which prohibit hydrofracking and other production methods that interfere with the future minability of the coal, will prevent the commercial development of coalbed gas by the gas owner/lessee. The coal owner has the right to capture gas released by mining, but again, technology restricts the coal operator's ability to recover the gas in commercial quantities by means which will not infringe on the gas owners rights (at least in the gas owner's opinion). Thus, both the private and public sectors lose the benefits of a valuable potential resource because a practical solution to a legal problem was not achieved.

The court's holding in Hoge may also give gas owners tremendous leverage against coal owners. Gas owners can threaten to drill wells into the coal seam forcing the coal owner who plans on longwall mining, or other method effected by well placement, to buy the coalbed gas rights or to make other concessions to protect the coal.

C. Unresolved Legal Issues

Both the trial court decision and the superior court affirmation left a num-

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45 There are several methods of coalbed gas extraction currently known which would enable the gas to be removed before the coal is mined. Because the gas owner/lessee has access to the gas only from the surface, the vertical and directionally drilled (slant hole) wells appear to be the only viable extraction options. The vertical well is the more economical of these two methods, but neither method will generally produce paying quantities of coalbed gas without hydrofracking the seam—which usually interferes with the minability of the coal. National Petroleum Council, supra note 12 at 15-17. See also Ovler & Diamond, DRILLING A HORIZONTAL COALBED METHANE DRAINAGE SYSTEM FROM A DIRECTIONAL SURFACE BOREHOLE (Bureau of Mines Report of Investigation No. 8640, 1983).

46 The coalbed gas captured from the mine face and usually discharged out of the mine by artificial ventilation is generally not considered a viable source of paying quantities of coalbed gas. National Petroleum Council, supra note 12 at 7. See also Goodman, Ceruik, & Aul, DEGASIFICATION STUDY FROM AN AIRSHRAFT IN THE BECKLEY COALBED (Bureau of Mines Report of Investigation No. 8675, 1982).

47 There are methods of recovering coalbed gas in advance of coal-mining from inside the seam which are economically feasible. These methods, horizontal holes from shaft bottoms and horizontal holes from mine workings, may delay mining operations while the seam is degassed, but minimize damage to the coal's minability. National Petroleum Council, supra note 12 at 17. The coal operator is not likely to employ these methods, however, because of the potential conflict with the gas owner's rights; since these techniques may not be considered capture incident to mining. On the other hand, if it became industry practice to degasify seams prior to mining because of safety concerns, a different conclusion could be argued. This may become a reality since prior degasification is accompanied by increased production in gassified seams.

48 Ironically, United States Steel Corporation is engaged in major research and development of coalbed gas petroleum in Alabama—where it owns the coal, gas and surface. See Kindley, INTEREST GROWS IN COALBED METHANE, TECHNOLOGICAL LEGAL PROBLEMS PERSIST, AM. A. GEOL. EXPLORER, Nov. 1982, at 6.
ber of issues unresolved. The trial court found that the coal owner is entitled to compensation for coal left in place to support gas production and for coal damaged in the process. It remains to be determined how those damages will be measured. Furthermore, if the coal owner degasses too far in advance of mining operations, will the gas owner be entitled to recover damages? How much? By what theory? The courts will eventually have to determine the surface owner's rights if the extraction of coalbed gas is found to be a surface use not contemplated at the time of the severance where the surface, gas, and coal are separately owned. Additionally, the question of the royalty to be paid for coalbed gas extraction by the coal operator to the surface owner (or gas owner) has yet to be raised. These issues will likely arise in the future—if the Hoge holding is upheld or repeated.

The Pennsylvania Supreme Court recently denied a petition for appeal in the case. The shortcomings of the legal conclusions, practical considerations and unresolved questions will apparently not be settled by Hoge and must await a new case for examination. At the very least, the questions and issues raised must be contemplated before substantial precedential value is given to the superior court's holding.

IV. Future Considerations

The Hoge decision was based upon facts and technology which may already be obsolete. The viability of future judicial and legislative action depends on an examination of public policy factors as well as technological limits and developments in the coalbed gas area.

Perhaps the most compelling factor that demonstrates the magnitude of the public policy interest in coalbed gas is the staggering amounts involved: 250 million cubic feet vented daily and an estimated 400 trillion cubic feet of reserves. One need only consider that estimated reserves of conventional natural gas are only 1,000 trillion cubic feet to appreciate the importance of coalbed gas as an energy source.

Another factor militating in favor of judicial or legislative action is the benefit that degassification confers on the coal mining and gas industries. Studies

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49 United States Steel Corp. v. Hoge, No. 78-682, Slip op. at 38-40 (C.P., Greene Co. Pa., March 24, 1980).
50 See supra note 5 and accompanying text.
53 While no exact figure can be determined, preliminary Department of Energy estimates based on the study of eleven coal basins indicate that the total reserves of coalbed gas in the United States is between 57 and 288 trillion cubic feet. Id. However, that figure is low compared to other estimates which range up to 400-450 trillion cubic feet. See Kindley, Methane Options, supra note 5, at 3.
evaluating the efficiency of coalbed gas extraction techniques are increasingly optimistic about the quantities of gas recoverable, and the effects on the ultimate minability of the coal.\(^{56}\) Prior degassification of coal seams increases productivity\(^{58}\) and makes subsequent mining safer and less expensive.\(^{67}\) Additionally, the initial production costs of coalbed gas are in line with production costs for traditional gas sources. It also appears that coalbed gas wells can be drilled with a higher rate of success.\(^{68}\) However, certain industry related factors have inhibited the exploitation of this resource. Historically, most gas and coal companies have not engaged in and are not technologically suited for production of the other resource.\(^{69}\) Furthermore, the low energy value of coalbed gas compared to the coal surrounding it,\(^{70}\) the possible damage to the coal mine roof,\(^{71}\) and the delay necessary for efficient extraction of coalbed gas, continue to serve as barriers to negotiated settlements between coal and gas operators.\(^{72}\) Therefore, government action appears to be the only way to ensure that coalbed gas is produced.

Until recently, government research in this area was fairly well funded and efforts to develop better methods to estimate and remove recoverable coalbed gas progressed.\(^{73}\) However, government research cutbacks may affect the future direction of coalbed gas technology.\(^{64}\) Before recent budget cutbacks, the Department of Energy (DOE) had been the major source of new technology and data in the coalbed gas area.\(^{66}\) Since the cutbacks, private industry has committed funds to continue the research through the Gas Research Institute

\(^{56}\) See Deul & Skow, Speeding Coal Mining, supra note 1, at 106.

\(^{58}\) Prior degassification results in lower methane levels within the seam. Therefore, mining operations can continue without interruption when working in coal seams which have high methane levels if the methane is drained ahead of mining operations. The efficiency of the drainage program will be higher if the drainage period is longer as opposed to the case where drainage occurs directly in advance of mining.

\(^{67}\) Deul & Kim, Speeding Coal Mining, supra note 1, at 106. See also National Petroleum Council, supra note 11, at 3.

\(^{58}\) See Deul & Kim, Coal Beds: A Source of National Gas, Oil & Gas J., (June 16, 1975) at 47-48. Horizontal bore holes from inside the mine would always produce methane and the quantity available could be determined before actual production.

\(^{68}\) See Kindley, Methane Options, supra note 6, at 4. Some major coal producers are, however, finding it increasingly beneficial to degassify coal seams before mining them. For example, Consolidation Coal Company has developed a horizontal drilling technique which has been employed in the company's northern West Virginia mines. The reason the system was developed and implemented, according to Conoco's Coal Research Division, was safety benefits. Morgantown, W. Va. Dominion Post, Feb. 27, 1983 at F1, col. 1-3. United States Steel is engaged in degassification programs in conjunction with coal operations in Alabama. See Kindley, Interest Grows in Coalbed Methane, Technological Legal Problems Persist, Am. A. Geol. Explorer. Nov. 1982, at 6. In both cases, however, the coal operators own both the coal and gas rights to the land.

\(^{69}\) Coalbed gas represents only one-to-two percent of the total energy value of the coal seam. National Petroleum Council, supra note 12, at 3.

\(^{61}\) Id. at 15-16.

\(^{62}\) See generally, Kindley, Methane Options, supra note 6, at 4.

\(^{63}\) See id. at 3.

\(^{64}\) Id. at 4.

\(^{65}\) Interview with Charles W. Byrer, Coalbed Methane Project Manager of Department of Energy, at Morgantown Energy Research Center, Morgantown, W. Va. (Jan. 5, 1983); see also Kindley, Methane Options, supra note 6, at 3.
(GRI), but, whether their research will begin where government research ended is a source of concern for those interested in coalbed gas production.66

Legislative efforts to solve the problem has so far been dismal failures. Measures designed to resolve the issue failed in both the Pennsylvania and West Virginia legislatures in the late 1970's.67 In 1977, Virginia passed a statute giving the surface owner presumptive title to all migratory gasses, including methane.68 But, the statute's meaning and effects are uncertain.69 In 1982, an attempt by the legislature to repeal the statute failed70 and so far no court

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66 Interview with Charles W. Byrer, supra note 65; see also Kindley, Methane Options, supra note 6, at 4.
67 See McGinley, Gas in Coal, supra note 1, at 392 n.84.
68 VA. CODE § 55-154.1 (1981), which states:
Mineral rights regarding migratory gasses; pending litigation; power of court.
A. Except as otherwise provided by law, on or after January one, nineteen hundred seventy-eight, all migratory gasses, including but not limited to propane and methane, shall be conclusively presumed to be the property of the owner of the surface real property beneath which such migratory gasses are or may be located.
B. Litigation involving the legal construction of lease agreements entered into prior to the effective date of this section shall be governed by the applicable law in effect at the time the agreement or agreements were entered into. The circuit court in which such proceedings involving the construction of such leases are heard may permit, in the discretion of the court, commercial extraction of migratory gasses; provided, however, that the court shall order reasonable royalties from the sale of such gases to be placed in an escrow account until the ownership of such gases is determined by final court order.
69 See McGinley, Gas in Coal, supra note 1, at 392 n.84. The purpose of the Virginia statute was to resolve the coalbed gas ownership problem so that commercial utilization of the gas could be encouraged. Letter from Virginia Senator J. Harry Michael, Jr., to Philip M. Sadlen, Esq. (March 26, 1976) at 3 (containing Statement of Legislative History and Purpose of VA. CODE § 55-154.1 (1981) enacted in 1977) (Letter is filed with Virginia Division of Legislative Services). The intent in passing the legislation was to foster litigation over the issue and give the Virginia courts a clear statement of legislative purpose: development of the gas. Id.
70 Compare Virginia S.B. No. 253 (1982 Regular Session) Section 2 before engrossment, with Virginia S.B. No. 253 (1982 Regular Session) Section 2 after engrossment (Feb. 19, 1982) (amendment to repeal VA. CODE § 55-154.1 (1981) removed from bill before engrossment). The issue in Virginia may be further complicated by the adoption of VA. CODE § 55-155.2 in 1981 which creates a presumption, in the absence of a contrary deed provision, that mineral deeds after 1981 convey the strata containing the mineral. The statute states:
Presumption regarding estate of owner of mineral rights.
Except as otherwise provided in the deed by which the owner of minerals derives title, the owner of minerals shall be presumed to be the owner of the shell, container chamber, passage and space opened underground for the removal of the minerals, with full right to haul and transport minerals from other lands and to pass men, materials, equipment, water and air through such space. No injunction shall lie to prohibit the use of any such shell, container chamber, passage or space opened underground by the owner of minerals for the purposes herein described. The provisions of this section shall not affect contractual obligations and agreements entered into prior to July one, nineteen hundred eighty-one.
It may be difficult for a court to reconcile the differences in the two statutes (§ 55-154.1 and § 55-154.2). If the repeal of VA. CODE § 55-154.1 had passed, the coal owner's case for ownership of coalbed gas would have been much stronger where the severance deed is silent. Since the repeal attempt failed, the ownership of coalbed gas is still uncertain. References to a long dormant (15-20 yr.) case on the ownership issue in Wise County, Virginia have been found in several sources. See letter from Virginia Senator J. Harry Michael, Jr. supra note 65, at 3. Mutchler & Sachse, Legal Aspects of Coalbed Gas, J. PETROL. GEOL., Oct. 1981, at 1861. But the long period of dormancy
has attempted to construe it.\textsuperscript{71}

Additionally, statutes which designate the owner of coalbed gas and nothing more are subject to the same criticism as the court’s solution in \textit{Hoge}. Statutes regulating the placement of gas wells give the coal owner some input in the well’s ultimate location,\textsuperscript{72} but, are of little help with the multitude of other problems in the area of ownership and production of coalbed gas. Public policy considerations may be reflected in statutory provisions which prohibit the wasting of gas.\textsuperscript{73} But, without comprehensive legislation,\textsuperscript{74} large quantities of coalbed gas will continue to be lost unless the courts can provide a more practical solution.

Proposed solutions to the coalbed gas ownership problem vary widely. Some have seen the solution in cooperation and negotiated settlements between coal and gas producers\textsuperscript{75} while others see the legal and factual arguments as supporting the coal owner’s claim of title.\textsuperscript{76} Still others see the solu-

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\textsuperscript{71} It should be noted that the coalbed gas problem has received attention at the federal level, although no ownership solution has been achieved. See Olson, \textit{Coalbed Methane, supra} note 2, at 399-402.

\textsuperscript{72} See, \textit{e.g.}, \textsc{W. Va. Code} § 22-4-2 (1981).

\textsuperscript{73} \textsc{W. Va. Code} § 22-4A-2 (1981) provides in part:

\begin{itemize}
    \item Declaration of public policy; legislative findings.
    \begin{itemize}
        \item (a) It is hereby declared to be the public policy of this State and in the public interest to:
            \begin{enumerate}
                \item (1) Foster, encourage and promote exploration for and development, production, utilization and conservation of oil and gas resources;
                \item (2) Prohibit waste of oil and gas resources and unnecessary surface loss of oil and gas and their constituents;
                \item (3) Encourage the maximum recovery of oil and gas; and
                \item (4) Safeguard, protect and enforce the correlative rights of operators and royalty owners in a pool of oil or gas to the end that each such operator and royalty owner may obtain his just and equitable share of production from such pool of oil or gas.
            \end{enumerate}
    \end{itemize}
\end{itemize}

\textsc{W. Va. Code} § 22-4A-2 (1981) defines waste:

\begin{itemize}
    \item (15) “Waste” means and includes: (a) Physical waste, as that term is generally understood in the oil and gas industry; (b) the locating, drilling, equipping, operating or producing of any oil or gas well in a manner that causes, or tends to cause, a reduction in the quantity of oil or gas ultimately recoverable from a pool under prudent and proper operations, or that causes or tends to cause unnecessary or excessive surface loss of oil or gas; or (c) the drilling of more deep wells then are reasonably required to recover efficiently and economically the maximum amount of oil and gas from a pool;
\end{itemize}

\textsc{W. Va. Code} § 22-4A-3 (1981) provides in part:

\begin{itemize}
    \item Application of article; exclusions.
    \begin{itemize}
        \item (a) Except as provided in subsection (b) of this section, the provisions of this article shall apply to all lands located in this State, however owned, including any lands owned or administered by any government or any agency or subdivision thereof, over which the State has jurisdiction under its police power. The provisions of this article are in addition to and not in derogation of or substitution for the provisions of article four [§ 22-4-1 et seq.] of this chapter.
    \end{itemize}
\end{itemize}

\textsc{W. Va. Code} § 22-4A-6 (1981) provides: “Waste of oil or gas is hereby prohibited.”

\textsuperscript{74} At least one author has observed the probable constitutionality of a legislative solution to the coalbed gas ownership issue. See McGinley, \textit{Gas in Coal, supra} note 1, at 393-94.

\textsuperscript{75} See Craig & Myers, \textit{Ownership of Methane, supra} note 2, at 810.

\textsuperscript{76} See McGinley, \textit{Gas in Coal, supra} note 1, at 395.
\end{flushleft}
tion in effective legislation.27

A first step towards resolving the problem could be to enact legislation requiring prior degassification of minable coal seams with methane levels shown to be commercially producible. That requirement would result in safer mining conditions, reduced ventilation of recoverable gas and compromises between competing mineral owners. Such a statute could also provide a royalty scheme designed to compensate all interested mineral parties. By legislatively designating the coal owner as the party responsible for coalbed gas recovery operations, the coal owner could contract out the gas recovery operations or perform them himself. Either way, the gas is recovered, future mining will be safer, and the coal owner, by controlling the method of extraction employed, can ensure minimal adverse effects on the minability of the coal.

In the absence of legislation, courts are faced with the tremendous challenge of deciding the coalbed gas ownership issue without the adverse consequences of the Hoge holding. Courts may be persuaded by the argument that a "mineral" coexistent with another mineral, the first being known but of unrecognized value, belongs to the party who in good faith purchases the first with the intent to waste the second. This would give title to coalbed gas to the coal owners, but would not guarantee the recovery of the gas.28 Courts could also hold as the Hoge court did, but find that a way of necessity (hydrofracking) cannot be obtained by a gas operator and, therefore, force a sale of the coalbed gas estate.29 Forced sale would favor both mineral owners because they would then be able to realize the full value of their respective interests.

In the future, as the nation's energy requirements continue to grow and energy independence remains a national goal, the need for a viable solution to the coalbed gas issue will force more courts to decide the ownership issue. Without legislative action, the competing economic and social interests will force courts to fashion some solution to this problem. However, given the scope and complexity of the issues involved, no comprehensive judicial resolution seems attainable.

CONCLUSION

The coalbed gas ownership problem has not been resolved by the single appellate court opinion in Hoge. The precedential value of that decision must be assessed in light of the complexity of the issues, the rationale used by the court to arrive at its conclusions and the limitations inherent in a state court deciding an issue under state law. There are also a number of legal uncertainties remaining after the courts holding.


28 Of course, courts could read such a duty into the public policy provisions of anti-waste statutes already discussed. See infra note 73 and accompanying text.

29 This assumes the coal owner purchases the coalbed gas interest. There is statutory authority for forced sales when partition-in-kind is not available to cotenants. See, e.g., W. VA. CODE §§ 37-4-1 to -8 (1966).
The problem can be avoided in the future by negotiation and by careful drafting of legal documents. The *Hoge* decision would appear to make this a necessity in Pennsylvania.

Solutions to the existing legal questions do not seem near at hand. Even where the ownership issue is resolved by the courts, unless innovative judicial engineering is employed, the solution may not make the production of coalbed gas legally feasible. Ultimately, public policy dictates and technological limitations may create enough pressure to move Congress or state legislatures to action.

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