

A PRIMER ON OIL AND GAS LAW IN THE MARCELLUS SHALE STATES

GEORGE A. BIBIKOS* AND JEFFREY C. KING**

I. INTRODUCTION	156
II. GENERAL RULES GOVERNING THE RELATIONSHIP BETWEEN LESSORS AND LESSEES	157
A. Lessee’s Interest in an Oil and Gas Lease	157
B. Performance of Implied Duties	160
1. The Prudent-Operator Standard	161
2. Specific Implied Duties.....	163
3. Remedies for Breach and Excuses for Nonperformance.....	166
C. Royalty Calculations	167
1. Royalties, Production, and Post-Production	168
2. At-the-Well States.....	169
3. Marketable-Product States.....	170
III. THE MARCELLUS SHALE STATES	171
A. Pennsylvania.....	171
1. Lessee’s Interest in Pennsylvania	171
2. Performance of Implied Duties in Pennsylvania	173
3. Royalty Calculations in Pennsylvania	181
B. West Virginia	184
1. Lessee’s Interest in West Virginia	184
2. Performance of Implied Duties in West Virginia	185
3. Royalty Calculations in West Virginia.....	188
C. Ohio	189

* George Bibikos is a litigation associate in the Harrisburg, Pennsylvania office of K&L Gates, LLP and serves as counsel to oil and gas companies operating in the Marcellus Shale states. His experience in the industry includes royalty litigation, surface-use litigation, transactional advice, and environmental compliance. George received a B.S. from Shippensburg University in 2000 and a J.D., *magna cum laude*, from Widener University School of Law in 2003.

** Jeff King is a litigation partner in the Fort Worth, Texas office of K&L Gates, LLP. For the past twenty years he has handled a wide range of business disputes with a primary emphasis in oil and gas, product liability, and banking litigation. Jeff received a B.A. from the University of Texas at Austin in 1983 and a J.D., *cum laude*, from the Texas Tech University School of Law in 1987.

The thoughts and views expressed by the authors are their own and not necessarily those of K&L Gates, LLP or its clients. This article is not intended to be, nor should it be construed as, legal advice. Comments may be directed either to george.bibikos@klgates.com or to jeff.king@klgates.com. We are indebted to all our colleagues who provided invaluable comments and suggestions.

156	TEXAS JOURNAL OF OIL, GAS, AND ENERGY LAW	[Vol. 4
	1. Lessee's Interest in Ohio	190
	2. Performance of Implied Duties in Ohio	190
	3. Royalty Calculations in Ohio	191
	D. New York	191
	1. Lessee's Interest in New York	192
	2. Performance of Implied Duties in New York	192
	3. Royalty Calculations in New York.....	193
	IV. CONCLUSION	193

I. INTRODUCTION

The formation known as the Marcellus Shale has been labeled by some as one of the most significant opportunities for domestic natural gas development in many years.¹ Located primarily within the Appalachian Basin—adjacent to high-demand energy markets along the East Coast—the shale underlies the rugged and hilly Appalachian terrain in eight states including Pennsylvania, West Virginia, Ohio, and New York.² Although once regarded as an infeasible option for natural gas development, new exploration technology and advanced drilling and fracturing techniques should enable operators to access and develop these resources at a time when natural gas production is both politically acceptable and economically sensible.³

As a result, a gold rush mentality has been developing in the Marcellus Shale states.⁴ Operators have executed a multitude of oil and gas leases with landowners, and many have acquired acreage that has been held by

1. The Marcellus is an organic-rich shale underlying the Appalachians. See John A. Harper, *The Marcellus Shale—An Old “New” Gas Reservoir in Pennsylvania*, PA. GEOLOGY, Spring 2008, at 2. The reserve estimates vary substantially. Terry Engelder, a geologist at Penn State University, recently estimated that the Marcellus contains over 360 trillion cubic feet of natural gas. Mary Esch, *Gas Yield from Marcellus Shale Goes Up*, CHARLESTON GAZETTE, Nov. 4, 2008, at 6A, available at 2008 WLNR 21144443.

2. See Geology.com, Marcellus Shale—Appalachian Basin Natural Gas Play, <http://geology.com/articles/marcellus-shale.shtml> (last visited Mar. 26, 2009) (“The Marcellus Shale, also referred to as the Marcellus Formation, is a Middle Devonian-age black, low density, carbonaceous (organic-rich) shale that occurs in the subsurface beneath much of Ohio, West Virginia, Pennsylvania, and New York. Small areas of Maryland, Kentucky, Tennessee, and Virginia are also underlain by the Marcellus Shale.”). The Marcellus only marginally underlies Maryland, Kentucky, Tennessee, and Virginia; thus, oil and gas law in those states is not the subject of scrutiny in this article.

3. Harper, *supra* note 1, at 2 (“In reality, the Marcellus has been a known gas reservoir for more than 75 years. What has made it newsworthy, besides much hyperbole, is that the oil and gas industry has both new technology and price incentives that make this otherwise difficult gas play economical.”).

4. Clifford Krauss, *There's Gas in Those Hills*, N.Y. TIMES, Apr. 8, 2008, at C1. Krauss explains that:

[A] frenzy unlike any seen in decades is unfolding here in rural Pennsylvania, and it eventually could encompass a huge chunk of the East, stretching from upstate New York to eastern Ohio and as far south as West Virginia. Companies are risking big money on a bet that this area could produce billions of dollars worth of natural gas.

production from shallower formations. Lying beneath all this euphoria, however, is a very significant challenge for oil and gas practitioners and their clients. That challenge, simply stated, is this: how does one comply with the law of a state when it has very limited oil and gas jurisprudence, and its most recent leading cases are over one hundred years old? In some of the Marcellus Shale states, courts will be deciding, for the first time in their histories, issues associated with the lessor-lessee relationship. In other instances, issues once believed to be settled long ago in the context of conventional oil and gas drilling may be revised by renewed litigation or legislative and regulatory initiatives.

Given this background and the concomitant potential for disputes, our goal in this article is to introduce and discuss three broad topics that are at the core of the lessor-lessee relationship: (1) the nature of a lessee's interests in an oil and gas lease; (2) the lessee's implied duties under the lease; and (3) the royalties payable to the lessor. To that end, Part II of this article reviews these core issues as they have developed in other oil and gas jurisdictions. Part III explores if and how the courts in the Marcellus Shale states have decided these issues with a particular emphasis on Pennsylvania, West Virginia, Ohio, and New York. This discussion identifies unresolved issues in these states that may be decided through litigation (or in some cases legislative initiatives). Part IV provides a brief conclusion.

II. GENERAL RULES GOVERNING THE RELATIONSHIP BETWEEN LESSORS AND LESSEES

At the risk of oversimplifying, the lessor-lessee relationship has at least three core components: (1) the interests created by the oil and gas lease; (2) the lessee's performance under the lease; and (3) the compensation owed to the lessor.

A. *Lessee's Interest in an Oil and Gas Lease*

The case law in nearly every jurisdiction discussing the nature of a lessee's interest in an oil and gas lease is riddled with confusion.⁵ The word *lease* itself causes confusion.⁶ It implies that the lessee acquires a

5. 1A W.L. SUMMERS, *THE LAW OF OIL AND GAS* § 152, at 366-75 (1958) (noting the confusion caused by the varied classifications by courts of the nature of the lessee's interest in oil and gas under a lease); M.K. Woodward, *Ownership of Interests in Oil and Gas*, 26 OHIO ST. L.J. 353, 353 (1965) ("The courts have had difficulty in formulating a meaningful theory of ownership of oil and gas.").

6. 1 HOWARD R. WILLIAMS & CHARLES J. MEYERS, *OIL AND GAS LAW* § 202.1, at 21-22 (2008) ("The very name 'lease' is unfortunate inasmuch as it tends to give the impression to the uninformed that the relationship arising between the parties to an oil and gas lease is the same as that of landlord and tenant, whereas . . . the dissimilarities are more important than the similarities.").

mere right to use the lessor's property for a fixed period to develop the oil and gas below, with all ownership interests remaining in the lessor. However, as explained below, when a lessor executes an oil and gas lease, courts usually regard the transfer as a conveyance to the lessee of an ownership interest in the oil and gas as real property, along with an interest in the surface estate itself. This differs from the usual understanding of a lease arrangement, as in landlord-tenant relationships.⁷ In any event, for present purposes, we focus on the basic principles with which most courts seem to agree rather than attempting to reconcile the different classifications courts have placed on the nature of the lessee's interest in an oil and gas lease.⁸

Most oil and gas jurisdictions agree that oil and gas in place belongs to the owner of the surface until that interest is conveyed away in some manner.⁹ This is the ownership theory.¹⁰ A landowner, regarded by courts in oil and gas jurisdictions as the owner of the oil and gas in place, may convey or lease his entire interest in oil and gas separately from his interest in the surface estate.¹¹

7. *See id.*

8. For a discussion of the divergent views of the nature of the interests in an oil and gas lease, see James A. Veasey, *The Law of Oil and Gas*, 18 MICH. L. REV. 445, 462 (1920) ("[T]here is so much confused thought on the subject that a critical inquiry is demanded.").

9. NCNB Tex. Nat'l Bank, N.A. v. West, 631 So. 2d 212, 223 (Ala. 1993) (quoting Stephens County v. Mid-Kan. Oil & Gas Co., 113 Tex. 160, 167, 254 S.W. 290, 292 (1923); Veasey, *supra* note 8, at 456 ("It is well settled in every jurisdiction that oil and gas in place are minerals, and as such they are part of the realty . . ."). As one author explains:

The majority of states follow the "ownership-in-place" theory of ownership of natural gas. Under this theory, "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." Thus, in ownership-in-place states, such as Pennsylvania, "the owner of a tract of land holds the fee in oil and gas underlying the boundaries of his property even though the oil and gas are not the subject of actual possession until brought to the surface."

Sarah Kathryn Farnell, *Methane Gas Ownership: A Proposed Solution for Alabama*, 33 ALA. L. REV. 521, 522 (1982)). In Pennsylvania the owner of the coal interest also owns the coalbed methane. *See* U.S. Steel Corp. v. Hoge, 468 A.2d 1380, 1383-84 (Pa. 1983).

10. For a time, courts subscribed to the now archaic view that because oil and gas meanders freely beneath the surface of the earth, much like water, it could not be owned or conveyed by anyone until reduced to possession. *Ohio Oil Co. v. Indiana*, 177 U.S. 190, 208 (1900). As a result, the common law rule of capture developed. Under the rule of capture, a person who installs a well on his land and happens to drain oil or gas from an adjacent land nevertheless acquires title to his neighbor's oil or gas. Robert E. Hardwicke, *The Rule of Capture and Its Implications as Applied to Oil and Gas*, 13 TEX. L. REV. 391, 393 (1935). The rule has been limited or eliminated by various conservation statutes enacted to prevent wasteful drilling of wells and to protect adjoining landowners from depletion of their resources. *Griffith v. Gulf Refining Co.*, 60 So. 2d 518, 520 (Miss. 1952) ("Consequently, the common law rule is now limited and circumscribed by the conservation rules and regulations of the Board . . ."); *Mobil Exploration & Producing U.S. v. State Corp. Comm'n*, 908 P.2d 1276, 1282 (Kan. 1995) ("Kansas enacted the Natural Gas Conservation Act in 1935 to prevent such waste and to protect the rights of adjoining owners."); *Anderson v. Corp. Comm'n*, 327 P.2d 699, 702-03 (Okla. 1958).

11. Most jurisdictions agree that the mineral estate can be severed and transferred independently of the surface estate. *See, e.g., Dickinson v. Davis*, 224 So. 2d 262 (Fla. 1969)

Likewise, courts mostly agree that a lease conveys to the lessee an interest in the oil and gas and an interest in the surface estate, but the interests are often classified differently depending upon context;¹² for example, the oil and gas may be classified as realty for purposes of taxation but personalty for some other purpose, or vice-versa.¹³ The prevailing view seems to be that a lease conveys an interest in real property.¹⁴ Specifically, a lessee acquires a fee simple determinable in the oil and gas with a reversionary interest in the lessor.¹⁵ In addition, the lessee acquires an implied easement to access the surface as reasonably necessary and develop the oil and gas estate.¹⁶ However, the scope and

(stating that minerals, gas, and oil are separate properties from the surface and may be conveyed and taxed separately); *Jesberg v. Klinger*, 358 P.2d 770, 775 (Kan. 1961) (“Or, stated otherwise, two separate estates exist, each of which is distinct; the surface and the mineral rights are then held by separate and distinct titles in severalty and each is a freehold estate of inheritance separate from and independent of the other.”); *Schuster v. Pa. Turnpike Comm’n*, 149 A.2d 447, 449 (Pa. 1959) (identifying three estates in land: surface, support, and minerals); *City of Erie v. Pub. Serv. Comm’n*, 123 A. 471, 475 (Pa. 1924) (stating that oil and gas rights are freehold estates that can be severed from the surface and transferred).

12. *Utica Nat’l Bank & Trust Co. v. Marney*, 661 P.2d 1246, 1247-48 (Kan. 1983) (“It seems to be agreed that an oil and gas leasehold interest is a property right, but there still remains wide disagreement among the various jurisdictions of this country as to whether it is real property or personal property.”).

13. *See, e.g., W. Natural Gas Co. v. McDonald*, 446 P.2d 781, 783 (Kan. 1968) (“[T]he rights created by oil and gas leases covering land in Kansas constitute intangible personal property except when that classification is changed for a specific purpose by statute.”).

14. *E.g., Carroll v. Holliman*, 336 F.2d 425 (10th Cir. 1964) (Texas law); *Cont’l Supply Co. v. Marshall*, 152 F.2d 300 (10th Cir. 1945) (Oklahoma lease); *Callahan v. Martin*, 43 P.2d 788 (Cal. 1935); *Hagood v. Heckers*, 513 P.2d 208, 214 (Colo. 1973) (“The majority rule in western states appears to favor interpretation of the lessee’s interest in the oil and gas lease as an interest in real estate.”); *Stokes v. Tutvet*, 328 P.2d 1096, 1099 (Mont. 1958) (stating that a lessee’s interest in an oil and gas lease constitutes an interest in real property); *Bolack v. Hedges*, 240 P.2d 844 (N.M. 1952); *Corbett v. La Bere*, 68 N.W.2d 211, 211 (N.D. 1955) (“The interest acquired by the lessee under an ordinary oil and gas lease is known as a working interest and is an interest in real property.”).

15. *See W.T. Waggoner Estate v. Sigler Oil Co.*, 19 S.W.2d 27, 28-29 (Tex. 1929) (stating that an oil, gas, and mineral lease invests lessee with determinable fee in oil and gas in place); *see also State v. Superior Court*, 550 P.2d 626, 628 (Ariz. 1976) (stating that a lease creates a determinable fee in oil and gas); *Kiser v. Eberly*, 88 A.2d 570, 572 (Md. 1952) (citing *Chandler v. Hart*, 119 P. 516 (Cal. 1911); *People v. Bell*, 86 N.E. 593 (Ill. 1908); *Fed. Land Bank of New Orleans v. Mulhern*, 157 So. 370 (La. 1934)) (“It has been held in other States that, since oil and gas in place are realty, subject to sale while under the earth’s surface, an oil and gas lease grants to the lessee a qualified or determinable fee in the property.”).

16. *See, e.g., Pyramid Coal Corp. v. Pratt*, 99 N.E.2d 427, 429-30 (Ind. 1951); *EOG Res., Inc. v. Turner*, 908 So. 2d 848, 854 (Miss. Ct. App. 2005) (“[M]ineral owner or a lessee of the mineral estate, in the absence of additional rights expressly conveyed or reserved, may use as much of the surface as is reasonably necessary to exercise its right to recover minerals, without liability for surface damage.”); *Hunt Oil Co. v. Kerbaugh*, 283 N.W.2d 131, 138 (N.D. 1979); *Getty Oil Co. v. Jones*, 470 S.W.2d 618, 621 (Tex. 1971). As one court explained:

As against the owner of the surface, . . . purchasers [of coal, gas, and oil] . . . have the right without any express words of grant for that purpose to go upon the surface to open . . . a well, to his underlying estate, and to occupy so much of the surface . . . as might be necessary to operate his estate, and to remove the product thereof.

Chartiers Block Coal Co. v. Mellon, 25 A. 597, 598 (Pa. 1893). In Pennsylvania this rule applies with equal vigor when the Commonwealth owns the surface but not the minerals below. *See Belden & Blake v. Commonwealth, Dep’t of Conservation and Natural Res.*, No. 35 MAP 2007, 2009 Pa. LEXIS 664, at *5 (Pa. 2009).

nature of that implied easement—the burdens it may impose on the surface estate and the obligations owed by the oil and gas operator with respect to minimization or compensation for disturbance of the surface owner's facilities and activities—are matters which may vary among jurisdictions depending on prior case law or legislative prescriptions.¹⁷ The lessor, in turn, acquires a *royalty interest* in the oil and gas and maintains title to the surface estate subject to the dominant oil and gas estate.¹⁸

B. Performance of Implied Duties

As described above, an oil and gas lease is a conveyance: it transfers an interest in the oil and gas to the lessee along with an attendant property right to use the surface estate in order to produce the resource. The lease is also a contract: the parties intend in executing an oil and gas lease to gain mutual advantages and profits from the production of oil and gas.¹⁹ To illustrate, if the lessor's royalties are based on a share of the product (in kind) or a share of its value (in cash) free of production costs, the lessor benefits if oil and gas is produced from his land. Likewise, if the lessee's return on its investment increases exponentially as production increases, the lessee benefits from its efforts to produce oil and gas from the lessor's property.²⁰

An oil and gas lease, however, infrequently specifies the performance obligations of the parties.²¹ On one hand, the lessor usually has no

17. See, e.g., 765 ILL. COMP. STAT. ANN. 530/7 (West 2001 & Supp. 2008); IND. CODE ANN. § 32-23-7-6 (West 2002); KY. REV. STAT. ANN. § 353.595 (LexisNexis 2005); MONT. CODE ANN. § 82-10-501-511 (2007); N.D. CENT. CODE § 38-11.1-06 (2004); OKLA. STAT. ANN. tit. 52, §§ 318.1-320 (West 2000 & Supp. 2009); S.D. CODIFIED LAWS § 45-5A-1-11 (2004); TENN. CODE ANN. § 60-1-601-608 (2002); W. VA. CODE ANN. § 22-7-1-8 (LexisNexis 2002).

18. See, e.g., *Brady v. Yodanza*, 425 A.2d 726, 729-30 (Pa. 1981) (“One who purchases land expressly subject to an easement or with notice that it is burdened with an existing easement . . . takes the land subject to the easement irrespective of whether the deeds to the dominant landowners expressly grant the easement appurtenant.”); *Wettengel v. Gormley*, 39 A. 57, 58 (Pa. 1898); *Babcock Lumber Co. v. Faust*, 39 A.2d 298, 303 (Pa. Super. Ct. 1944) (stating that the surface estate is subject to the mineral estate). As it relates to the lessor in an oil and gas lease, *royalty interest* means the lessor's property interest in oil and gas; the lessor “is entitled to a share of production, if, as and when there is production, free of the costs of production.” 8 WILLIAMS & MEYERS, *supra* note 6, at 925.

19. Gary B. Conine, *Speculation, Prudent Operation, and the Economics of Oil and Gas*, 33 WASHBURN L.J. 670, 679 (1994) (“Thus, it is clear that the intent of the parties manifested in the lease is that the lessee engage in operations for the mutual advantage and profit of both the lessor and lessee, even though the instrument fails to expressly prescribe those operations.”).

20. 5 WILLIAMS & MEYERS, *supra* note 6, § 802.1, at 9 (“The principle of cooperation requires that parties to a contract cooperate in order to carry out the purposes of the agreement. It is based upon both the reasonable expectations of the parties when they enter into an agreement and ethical concepts of conduct.”).

21. See Conine, *supra* note 19, at 674 (“For all its importance, the typical lease is relatively brief and the terms of the grant are contained in a few express clauses.”); Joe H. Munster, Jr., *Implied Covenants in Oil and Gas Leases in Ohio*, 26 OHIO ST. L.J. 404, 405 (1965) (“It is unusual for any oil and gas lease to contain any provisions delineating the extent either of the

affirmative duties other than to convey the interest and refrain from interfering with the development of the leasehold.²² It is therefore no surprise that the lease lacks detail about the obligations of the lessor. The lessee, on the other hand, has many obligations: chief among them, the obligation to produce the oil and gas. This is no insignificant task, yet the lease sometimes is silent regarding the lessee's specific duties and how a lessee must carry out those duties.²³

In the absence of an express covenant, courts have filled some of the gaps by including certain implied covenants in leases. To illustrate: (1) a lessee is bound by a certain standard of conduct in developing the leasehold for the mutual benefit of the lessor and lessee;²⁴ and (2) a lessee must perform other implied duties pursuant to that standard of conduct.²⁵

1. The Prudent-Operator Standard

The great majority of oil and gas jurisdictions apply the *prudent-operator* standard of performance, although not all states overlying the Marcellus Shale have addressed the issue.²⁶ Under the prudent-operator

lessee's obligation in the areas of exploration, development, operation, marketing, and drainage protection, or of the diligence the lessee must use in fulfilling those obligations."); A.W. Walker, *The Nature of the Property Interests Created by an Oil and Gas Lease in Texas*, 11 TEX. L. REV. 399, 400 (1933) ("The hazards and uncertainties attending the development of oil and gas property and the transportation and marketing of these products render practically impossible the preparation, at the time the lease is executed, of specific clauses governing the details of development and operation.").

22. 5 EUGENE KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS § 54.2, at 4 (1991) ("The lessor, likewise, has a general duty to make the leased premises available to the lessee and not to interfere with the lessee's operations."). A lessee's performance under the lease may be excused if a lessor interferes with development. 5 WILLIAMS & MEYERS, *supra* note 6, § 808, at 49 ("The constructive duty of cooperation applies as well to lessor as to lessee. Thus, if lessor interferes with lessee's efforts to discharge his implied obligations, performance by the lessee may be excused.").

23. The production of oil and gas involves exploration; site preparation (including compliance with land use regulations, environmental permitting requirements, etc.); hydraulic fracturing, or "fracing" (for natural gas); drilling, installing, and maintaining well equipment and wellhead pipes; and virtually any other activities necessary to extract the resource from its natural state in the earth to the wellhead on the surface. The average cost of drilling just one Marcellus Shale well can cost up to several million dollars. *See, e.g.*, Cathy Landry, *2007 drilling expenditures hit new all-time high at over \$220 billion*, Energy API, available at www.api.org/Newsroom/drilling_expenditure.cfm (last visited Jan. 12, 2009). In addition, productive development of such wells will require extensive additional infrastructure, ranging from water supply and wastewater treatment for fracing fluids to gathering systems and pipelines to convey the gas to market.

24. 5 KUNTZ, *supra* note 22, § 54.2, at 1 (stating that interests of lessors and lessees "concur in that they both derive economic benefit from the production of oil and gas.").

25. The discussion of the prudent-operator standard and implied duties presupposes that a lease is silent on the standard of conduct and the obligations of the lessee. Parties may by express agreement contract around any duties or covenants implied in a lease. OWEN L. ANDERSON ET AL., *HEMINGWAY OIL AND GAS LAW AND TAXATION* § 8.1, at 402 (4th ed. 2004) ("To the extent these matters are addressed in a lessee-oriented lease, express provisions tend to limit what would otherwise be the implied obligation.").

26. 5 WILLIAMS & MEYERS, *supra* note 6, § 806.3, at 35 (citing *Amoco Prod. Co. v. Ware*, 602 S.W.2d 620 (Ark. 1980); *Hartman Ranch Co. v. Assoc. Oil Co.*, 73 P.2d 1163 (Cal. 1937); *Mountain States Oil Corp. v. Sandoval*, 125 P.2d 964 (Colo. 1942); *Alumet v. Bear Lake Grazing*

standard, a lessee must carry out the implied duties in a lease as would a reasonable and prudent operator in the same or similar circumstances in order to achieve the common benefit of both the lessor and the lessee.²⁷ The standard is an objective one, recognizing the “special skills and expertise regarding oil and gas operations.”²⁸ The inquiry is not whether the particular operator in question believes its course of conduct was reasonable, but whether in the ordinary course of business a hypothetical prudent operator faced with the same or a similar situation would have proceeded the same way.²⁹

The prudent-operator standard generally does not, however, impose upon a lessee an obligation to operate at a loss.³⁰ In this way, the prudent-operator standard seeks a balancing of both the lessor’s and the lessee’s interests. As courts have noted, the standard of conduct imposed upon a lessee attempts to ensure that the lessee reasonably and diligently develop the leasehold so the lessor can obtain royalties based on the amount of oil or gas produced from the property. A lessee, in turn, is entitled to a return on its investment just as much as a lessor is entitled to a royalty.³¹ The prudent-operator standard envisions a convergence of

Co., 732 P.2d 679 (Idaho Ct. App. 1986); *Daughetee v. Ohio Oil Co.*, 105 N.E. 308 (Ill. 1914); *Kan. Baptist Convention v. Mesa Operating L.P.*, 864 P.2d 204 (Kan. 1993); *McMahan v. Boggess*, 302 S.W.2d 592 (Ky. 1957); *Caddo Oil & Mining Co. v. Producers’ Oil Co.*, 64 So. 684 (La. 1914); *Compton v. Fisher-McCall, Inc.*, 299 N.W. 750 (Mich. 1941); *Sw. Gas Producing Co. v. Seale*, 191 So. 2d 115 (Miss. 1966); *Fey v. A. A. Oil Corp.*, 285 P.2d 578 (Mont. 1955); *George v. Jones*, 95 N.W.2d 609 (Neb. 1959); *Libby v. De Baca*, 179 P.2d 263 (N.M. 1947); *Olson v. Schwartz*, 345 N.W.2d 33 (N.D. 1984); *Harris v. Ohio Oil Co.*, 48 N.E. 502 (Ohio 1897); *N. Am. Petrol. Co. v. Knight*, 321 P.2d 964 (Okla. 1958); *Tex. Pac. Coal & Oil Co. v. Barker*, 6 S.W.2d 1031 (Tex. 1928); *Goldstein v. Lindner*, 648 N.W.2d 892 (Wis. Ct. App. 2002)).

27. *Sauder v. Mid-Continent Petrol. Corp.*, 292 U.S. 272 (1934); *Brewster v. Lanyon Zinc Co.*, 140 F. 801, 814 (8th Cir. 1905) (“Whatever, in the circumstances, would be reasonably expected of operators of ordinary prudence, having regard to the interests of both lessor and lessee, is what is required.”). There are, however, two other recognized standards of performance that courts have applied. *Cf. Sw. Gas Producing Co.*, 191 So. 2d at 119. The absolute-liability standard means a lessee is liable without fault for failing to perform an implied duty. The subjective good faith standard means if, in a lessee’s subjective judgment, he acted in good faith and without fraud, he cannot be liable for failing to perform an implied duty. Both standards have been criticized. *See* 5 WILLIAMS & MEYERS, *supra* note 6, §§ 806.1-806.2, at 29-35.

28. ANDERSON ET AL., *supra* note 25, § 8.5, at 433.

29. 5 WILLIAMS & MEYERS, *supra* note 6, § 806.3, at 42.1 (“Since the standard of conduct is objective, a defendant cannot justify his act or omission on personal grounds or by reference to his peculiar circumstances.”).

30. *Brewster*, 140 F. at 814 (“No obligation rests on [the lessee] to carry the operations beyond the point where they will be profitable to him, even if some benefit to the lessor will result from them.”). *But see* 5 WILLIAMS & MEYERS, *supra* note 6, § 806.3, at 41 (explaining that the statement in *Brewster* regarding profitability has not been not read by the courts so broadly).

31. In the context of the development covenant (discussed *infra* Part II.B.2.b), some commentators contend that:

The lessee is not required to further develop unless it will be profitable. Because the lessor has retained a royalty interest (free of the cost of production) any development that results in production should be regarded as profitable to the lessor. On the other hand, the lessee bears the direct costs of drilling and development and assumes the

these two interests. Thus, for example, if a lessor complains that a lessee must drill additional wells to develop a proven formation, but the evidence suggests that an operator could only do so at a loss, the prudent-operator standard generally would not require that the lessee drill those additional wells.

2. Specific Implied Duties

After determining a lessee's standard of conduct in performing the implied duties in a lease, the next question becomes: what are the implied duties in a lease?³² Courts and commentators have recognized several, including: (1) the duty to protect the leased premises from substantial drainage by adjoining operations; (2) the duty to drill enough wells to extract all the oil and gas underlying the lessor's property; and (3) the duty to market oil or gas extracted from the land.³³

Although the interests of the lessor and lessee generally converge in that both derive economic benefit from production, often their interests diverge.³⁴ For example, an operator may have legitimate business reasons to delay production, but a landowner might not be concerned with those reasons if it delays his royalty. Thus, the impetus for implying specific duties and imposing them on a lessee, in effect, is to encourage diligent production so the landowner may realize his royalty interest while recognizing that it is also to the benefit of the operator to proceed diligently.

a. Implied Duty to Protect against Drainage

As noted previously, oil and gas meanders freely beneath the surface of the earth and generally "can move toward any nearby wellbore that

direct risk of dry holes or unprofitable production. Thus, the lessee generally has no duty to further develop if the lessee is unlikely to achieve a profitable production.

ANDERSON ET AL., *supra* note 25, § 8.3, at 407.

32. Sometimes courts and commentators use the word *covenant* instead of *duty*. There appears to be no meaningful distinction. We use the terms interchangeably in this article.

33. ANDERSON ET AL., *supra* note 25, § 8.1, at 402. Others include (1) the duty to drill an exploratory well within a reasonable time after executing the lease and (2) a "catchall" duty to exercise reasonable and diligent care in developing the leasehold. See 5 WILLIAMS & MEYERS, *supra* note 6, § 804, at 28.1-28.2. The implied duty to drill an exploratory well is somewhat obsolete in light of modern lease provisions. Usually modern leases take two forms. They may expressly require drilling within the primary term or payment of delay rentals (the "or" lease). Alternatively, they may require termination *unless* the operator has commenced drilling or paid rentals (the "unless" lease). 3 WILLIAMS & MEYERS, *supra* note 6, § 601.5, at 11-12. In either case, the express language trumps the implied covenant. The catchall duty, in its simplest sense, protects the lessor from the operator's negligent prosecution of the leasehold. 5 WILLIAMS & MEYERS, *supra* note 6, § 861, at 429. This standard of conduct may already be subsumed within the prudent-operator standard.

34. 5 KUNTZ, *supra* note 22, § 54.2, at 1 (noting that interests of lessor and lessee conflict because lessor has a cost-free share of the royalty while lessee has a cost-bearing obligation of exploration and production).

pierces a reservoir.³⁵ Without an offset well to capture the oil and gas, the resource may be depleted by neighboring operations, especially in busy gas fields, and the lessor's opportunity for royalties based on production may be lost as a result.³⁶

Consequently, unless supplanted by contract or regulation, most jurisdictions that have addressed the issue have found that a lessee has an implied duty to drill an offset well to secure oil and gas underlying the leased premises.³⁷ The implied duty does not arise unless: (1) substantial drainage has occurred, and (2) the offset well will produce in paying quantities.³⁸ Thus, if a lessee does not drill an offset well, but a prudent operator under the circumstances would have drilled one, the lessee may risk liability for breach of this duty.

b. Implied Duty of Development

As the implied duty to drill an offset well protects the oil and gas in place from drainage, the implied duty of development requires lessees to extract without unreasonable delay as much of the oil and gas from the ground as possible. Well-recognized in most western oil and gas jurisdictions, the development covenant has been divided into two components: (1) development of proven formations, and (2) exploration and development of unproven formations.³⁹ The duty has been recognized in some eastern jurisdictions as well.⁴⁰

The duty to develop proven formations presupposes that an operator has reason to believe oil and gas exists in paying quantities within the confines of the leased premises. Usually a producing well provides the best evidence of a proven formation. New exploration technology may

35. Conine, *supra* note 19, at 686; *see supra* note 10 (discussing the rule of capture).

36. An *offset well* is defined as "a well drilled on one tract of land to prevent the drainage of oil or gas to an adjoining tract of land, on which a well is being drilled or is already in production." 8 WILLIAMS & MEYERS, *supra* note 6, at 684.

37. Amoco Prod. Co. v. Ware, 602 S.W.2d 620, 624 (Ark. 1980) (recognizing the covenant to protect the leasehold from drainage from wells on adjoining lands through drilling offset wells). Conservation laws may require operators to execute pooling arrangements with many adjoining landowners in order to prevent wasteful drilling. Under these circumstances, the statute or regulation trumps the implied obligation to drill an offset well to protect against drainage; indeed, the statutory pooling arrangements are designed in part to protect the lessor's interest in this regard. *See supra* note 10 (discussing the purpose of conservation laws).

38. *See, e.g.*, Ramsey Petrol. Co. v. Davis, 85 P.2d 427, 429-30 (Okla. 1938). Production in paying quantities in the context of implied covenants means "production in quantities sufficient to yield a return in excess of drilling, development, and operation costs." 8 WILLIAMS & MEYERS, *supra* note 6, at 821-23; *accord* Hay v. Shell Petrol. Corp., 30 F. Supp. 663, 664-68 (W.D. Okla. 1939); Compton v. Fisher-McCall, 299 N.W. 750, 754 (Mich. 1941).

39. Blythe v. Sohio Petrol. Co., 271 F.2d 861, 864 (10th Cir. 1959) (distinguishing development of proven versus unproven formations); 5 WILLIAMS & MEYERS, *supra* note 6, § 831, at 214.3 ("As we conceive it, the covenant of reasonable development is concerned with further drilling in known producing formations, while the covenant of further exploration is concerned with drilling in potentially productive but as yet untested (or only partially tested) formations.").

40. *See infra* Section III.

also reveal the existence of a proven formation. In any event, once a proven formation yields production in paying quantities, the lessee is under an implied obligation to drill additional wells in order to extract the oil and gas from that formation.⁴¹ If a lessee fails to develop proven formations when, in a similar situation, a prudent operator would have done so, a lessee risks liability for breach of the duty.

Although there is no duty to drill an exploratory well, the existence of a proven formation within the confines of the leased premises may suggest to a prudent operator that oil and gas underlies unexplored areas within the boundaries of the leasehold.⁴² Thus, an operator may have an implied duty to reasonably explore other potentially productive areas within the leasehold's boundaries.⁴³ The test is whether the operator unreasonably refrained from exploring unproven formations within the leased premises under all the circumstances (including evidence of proven formations in the area, the amount of time that lapsed since discovering a proven formation elsewhere on the property, and profitability).⁴⁴ If a lessee does not explore the property further even though it would be prudent and profitable to do so, the lessee may be liable for breach of the development covenant.⁴⁵

c. Implied Duty to Market the Production

The implied duties in the previous sections deal primarily with protecting the oil and gas under the leased premises and with developing those resources without unreasonable delay. The courts have implied these duties to guarantee that lessors have the opportunity to receive

41. See, e.g., 5 WILLIAMS & MEYERS, *supra* note 6, § 832, at 220 & n.1 (citing Standard Oil Co. of La. v. Giller, 38 S.W.2d 766 (Ark. 1931); State *ex rel.* Shell Petrol. Co. v. Worden, 103 P.2d 124 (N.M. 1940); Goldstein v. Lindner, 648 N.W.2d 892 (Wis. Ct. App. 2002)); see also ANDERSON ET AL., *supra* note 25, § 8.3, at 405 & n.1 (citing Berry v. Wondra, 246 P.2d 282 (Kan. 1952); McMahan v. Boggess, 302 S.W.2d 592 (Ky. 1957); Coats v. Brown, 301 S.W.2d 932 (Tex. Civ. App.—Texarkana 1957, no writ); Tex. Pac. Coal & Oil Co. v. Stuard, 7 S.W.2d 878 (Tex. Civ. App.—Eastland 1928, writ *ref'd*)); 5 KUNTZ, *supra* note 22, § 58.1, at 66-67 (noting that most jurisdictions have concluded there is an implied duty to further develop after production has been established).

42. The duty to drill an exploratory well has been rendered obsolete by the modern drilling clause. See *supra* note 34 (discussing the duty to drill an exploratory well).

43. Doss Oil Royalty Co. v. Tex. Co., 137 P.2d 934, 938 (Okla. 1943) (recognizing the implied covenant of further exploration of unproven areas as necessary to prevent operators from holding leases for speculative purposes); see also Sauder v. Mid-Continent Petrol. Corp., 292 U.S. 272, 281 (1934) (holding that a lease for speculative purposes breaches the prudent-operator rule); ANDERSON ET AL., *supra* note 25, § 8.3(C), at 412.

44. 5 WILLIAMS & MEYERS, *supra* note 6, § 841, at 267-68 (collecting these factors from cases).

45. The notion that a separate duty of further exploration exists is a controversial one. Charles Meyers introduced the *further exploration* concept based on case law imposing duties on operators that held leases for long periods of time without developing the resources even though the leasehold yielded producing wells. E.g., Charles Meyers, *The Implied Covenant of Further Exploration*, 34 TEX. L. REV. 553 (1956).

royalties based on the production of oil and gas—the underlying intent of every lessor in executing the lease in the first place.

The implied marketing covenant, in turn, seeks to guarantee that any oil and gas produced from the property will be marketed so the lessor actually realizes payment.⁴⁶ Thus, as a general rule, and absent any express covenants, a lessee must diligently market oil and gas produced from a lessor's property.⁴⁷ The duty presupposes that oil and gas has been produced and that there is a market for the production. If, under these circumstances, a lessee fails to diligently market production, even though a prudent operator would have done so in the same circumstances, the lessee risks liability.⁴⁸ However, if a market does not exist, a lessee should not be liable for a breach of the marketing covenant absent other circumstances suggesting that a prudent operator could have taken reasonable steps both to find a market and physically deliver the product for sale.⁴⁹

3. Remedies for Breach and Excuses for Nonperformance

Courts have, over time, applied many different types of remedies for breaches of implied covenants. Remedies range from cancellation of the lease to damages and all points in between.⁵⁰ Although there may be some lingering disagreement over a default rule,⁵¹ most courts agree that damages are the appropriate remedy for breach of implied covenants.⁵² The majority rule recognizes that cancellation of an oil and gas lease is an

46. This analysis presumes that the lessor elects a cash payment as royalty rather than an in-kind distribution of the product. For natural gas, leases ordinarily provide for cash royalties rather than in-kind distributions.

47. *Stirman v. Exxon Corp.*, 280 F.3d 554, 564 (5th Cir. 2002) (citing rule and noting the states adopting the implied marketing covenant); *see, e.g.*, MAURICE H. MERRILL, *THE LAW RELATING TO COVENANTS IMPLIED IN OIL AND GAS LEASES* § 84, at 212 (2d ed. 1940); Joyce Colson, *Upstream, Midstream, Downstream—The Valuation of Royalties on Federal Oil and Gas Leases*, 70 U. COLO. L. REV. 563, 566 (1999).

48. *Yzaguirre v. KCS Res., Inc.*, 53 S.W.3d 368, 373-74 (Tex. 2001); *see generally* Bowden v. Phillips Petrol. Co., 247 S.W.3d 690 (Tex. 2008). The implied marketing covenant might change, as it does in Texas, depending upon the type of royalty provision at issue. Under a *market value* royalty provision, there is no duty to get the best price possible. Lessees must obtain market value for the production, not necessarily the best price available, based on comparable sales in the area. Under a *proceeds* royalty provision, lessees must obtain the best price available for the production. *Yzaguirre*, 53 S.W.3d at 373-74.

49. *Bristol v. Colo. Oil & Gas Corp.*, 225 F.2d 894 (10th Cir. 1955) (stating that no breach of marketing covenant where no market existed); *but see* *Rhoads Drilling Co. v. Allred*, 70 S.W.2d 576, 584-85 (Tex. 1934) (stating that the implied duty to market includes duty to equip wells for marketing but there is no breach of duty unless it is profitable for the operator to equip the wells for marketing).

50. *See* ANDERSON ET AL., *supra* note 25, § 8.7, at 440.

51. One or two states still seem to follow the virtually abandoned rule that the exclusive remedy for breach of implied covenants is forfeiture of the lease. *See, e.g.*, *Sapp v. Massey*, 358 S.W.2d 490 (Ky. 1962).

52. *See, e.g.*, *Alford v. Dennis*, 170 P. 1005 (Kan. 1918); *Sw. Gas Producing Co. v. Seale*, 191 So. 2d 115, 122 (Miss. 1966); *W.T. Waggoner Estate v. Sigler Oil Co.*, 19 S.W.2d 27, 29 (Tex. 1929).

extreme remedy. Implied duties are in the nature of covenants, not conditions precedent, and a breach of an *implied* covenant can rarely if ever be the basis for what would amount to a forfeiture of a protected interest in real property under an oil and gas lease.⁵³

A lessee may also assert defenses for nonperformance or breach of implied covenants. As a general matter, if the lessor interferes with development, courts have excused a lessee's failure to perform implied duties.⁵⁴ For example, a lessee may be excused from performance if a lessor: (1) declares a forfeiture of the lease; (2) sues to terminate the lease; or (3) prevents access to the leasehold.⁵⁵ Courts generally recognize that, under these circumstances, a prudent operator cannot afford the risk of further development until the interference has been resolved.⁵⁶

C. Royalty Calculations

As noted at various points throughout this article, royalties are the primary source of the lessor's compensation under an oil and gas lease. Royalties are also the primary source of disputes between lessors and lessees, as one might imagine.

Although the interests of lessors and lessees are often aligned in that both seek the common goal of production, their interests often diverge with respect to royalty calculations. A lessor presumably seeks maximum royalties and often expects a payment that reflects his share of the ultimate sale price without deduction of any costs. A lessee presumably also seeks maximum payment for the product, but the lessee, as the holder of the cost-bearing interest in the oil and gas, expects lessors to share proportionately in certain costs incurred to acquire that ultimate sales price.

Thus, one of the most controversial aspects of royalty calculations is the deduction of costs from royalty payments. Because the lessor's interest is free of *production* costs, the disputes center around the deduction of *post-production* costs. As described below, there is a split of authority regarding the propriety of these post-production deductions from royalty calculations.

53. Superior Oil Co. v. Devon Corp., 604 F.2d 1063 (8th Cir. 1979); Lowery v. May, 104 So. 5, 9 (Ala. 1925); HNG Fossil Fuels Co. v. Roach, 656 P. 2d 879 (N.M. 1982); Ionno v. Glen-Gery Corp., 443 N.E.2d 504 (Ohio 1983); Sinclair Oil & Gas Co. v. Bishop, 441 P. 2d 436 (Okla. 1968); Penn-Ohio Gas Co. v. Franks' Heirs, 185 A. 280, 281 (Pa. 1936); Batex Oil Co. v. La Brisa Land & Cattle Co., 352 S.W. 2d 769 (Tex. Civ. App.—San Antonio 1961, writ dismissed).

54. See 5 WILLIAMS & MEYERS, *supra* note 6, § 808, at 49, n. 2 (citing cases).

55. *Id.* at 51 (collecting cases). Likewise, a third party's interference may result in courts excusing a lessee's performance of implied duties. *Id.* (noting cases involving interference from private party suing to claim title to the leased premises or prevention of further development by government enforcing statutory and regulatory requirements).

56. *Id.* ("When lessor has filed suit to cancel a lease (or has declared a forfeiture) lessee cannot afford the risk of drilling.")

1. Royalties, Production, and Post-Production

As a point of beginning, a *royalty* is a term of art in the oil and gas industry meaning “a share of production, free of the expenses of production.”⁵⁷ The lessor’s usual share is one-eighth of the production (in turn, the lessee’s interest is usually seven-eighths). Royalties are payable either *in kind* (that is, the royalty owner is entitled to a share of the oil or gas as produced), or it may be payable in money (that is, the royalty owner is to be paid in money for the value or market price of his share of the product).⁵⁸

Production means oil or gas has been severed from the earth.⁵⁹ Most courts agree that the point of production is the wellhead on the surface.⁶⁰ *Production activities*, in turn, include all the activities necessary to extract oil or gas from the earth and bring it to the wellhead on the surface. These include exploring, drilling, installing, and maintaining a well; reworking a well; hydraulic fracturing (or *fracing*) for natural gas; and other upstream activities.

Post-production activities, however, are quite different from production activities. Generally post-production activities are those that occur between the wellhead on the surface and the point of sale (i.e., *downstream* of the wellhead). This includes gathering, dehydrating, compressing,⁶¹ processing, and transporting natural gas to market.⁶²

A lessor does not share in any of the costs of production. The lessee alone bears these costs.⁶³ However, unlike production activities, which are

57. 8 WILLIAMS & MEYERS, *supra* note 6, at 920.

58. *Id.*

59. As the Fifth Circuit stated:

In the interests of consistency, logic and economics, this court adopts as the legal definition of the word “production,” as used in the context of calculating royalty payments, the actual physical severance of minerals from the formation. For purposes of royalty calculation and payment, production does not occur until the minerals are physically severed from the earth.

Diamond Shamrock Exploration Co. v. Hodel, 853 F.2d 1159, 1168 (5th Cir. 1988).

60. See, e.g., Piney Woods Country Life Sch. v. Shell Oil Co., 726 F.2d 225, 231 (5th Cir. 1984) (“‘At the well’ therefore describes not only location but quality as well. Market value at the well means market value before processing and transportation, and gas is sold at the well if the price paid is consideration for the gas *as produced* but not for processing and transportation.”) (emphasis added); Schroeder v. Terra Energy, Ltd., 565 N.W.2d 887, 890 (Mich. Ct. App. 1997) (“The term ‘wellhead’ generally refers to the point at which gas is severed or removed from the ground.”); Mont. Power Co. v. Kravik, 586 P.2d 298, 302 (Mont. 1978).

61. For a discussion of compression costs and their deductions from royalties, see Jeffrey C. King, *The Compression of Natural Gas: Is it Production or Post-Production? Is it Deductible from Royalties? If so, How Much?*, 1 TEX. J. OIL GAS & ENERGY L. 36 (2006).

62. See Edward B. Poitevent, II, *Post-Production Deductions from Royalty*, 44 S. TEX. L. REV. 709, 714 (2003); King, *supra* note 61, at 37; 3 WILLIAMS & MEYERS, *supra* note 6, § 645.2, at 598-609. Post-production costs also include income and severance taxes. These are not costs of production. Both lessors and lessees pay their proportionate share of applicable income or severance taxes. *Id.* § 645.2, at 599-601.

63. 3 WILLIAMS & MEYERS, *supra* note 6, § 645.1, at 598 (“The expenses incurred in exploring for mineral substances and in bringing such substances to the surface are clearly ‘costs

not chargeable to the lessor, post-production expenses in many states are chargeable to the lessor.

2. At-the-Well States

A majority of oil and gas jurisdictions are known as *at-the-well* jurisdictions. As the name implies, courts interpret leases that are either silent on royalty calculations or provide for royalties payable at the well as authorizing lessees to deduct all costs of post-production from a royalty.⁶⁴ Stated differently, courts in at-the-well jurisdictions recognize that, absent lease provisions to the contrary, the general rule is that a lessor bears its proportionate share of post-production costs and a lessee bears its proportionate share of post-production costs.

The rationale underlying the at-the-well rule is that a lessor obtains a property interest in his cost-free share of the oil or gas the moment it reaches the wellhead.⁶⁵ At that point, the lessor is entitled to his share in kind or a cash equivalent.⁶⁶ If the lessor elects a cash equivalent, he is generally entitled to the value of the oil or gas as measured at the wellhead, not a share of the ultimate sales price. Because the oil or gas at

of production' and are not chargeable against the usual royalty or non-operating interest absent some express contractual provision to the contrary."); Poitevent, *supra* note 62, at 715 ("A royalty on oil or gas production is an expense-free share of production distributed to the lessor over the life of a lease. It is free of all costs of development and production.").

64. Richard B. Altman & Charles S. Lindberg, *Oil and Gas: Non-Operating Oil and Gas Interests' Liability for Post-Production Costs and Expenses*, 25 OKLA. L. REV. 363, 366 (1972) ("It is almost universally recognized that the lessee's marketing obligation is measured at the wellhead and, in the absence of a contrary lease provision, royalty with respect to marketed gas is computed and paid on the basis of its market value at the well."); Byron C. Keeling & Karolyn King Gillespie, *The First Marketable Product Doctrine: Just What is the "Product"?*, 37 ST. MARY'S L.J. 1, 30-31 (2005) ("Consequently, even when a lease did not contain 'at the wellhead' or similar language, courts routinely held that as long as the lease did not expressly require otherwise, the lessee could properly pay royalties on the value or price of its production at the wellhead."); Scott Lansdown, *The Marketable Condition Rule*, 44 S. TEX. L. REV. 667, 671-73 (2003) (citing George Siefkin, *Rights of Lessor & Lessee with Respect to Sale of Gas and as to Gas Royalty Provisions*, 4 INST. ON OIL & GAS LAW & TAX'N 181, 184 (1953)) ("Historically, there was a clear recognition that, under most oil and gas leases, the point of valuation for royalty purposes was 'at the well.'").

These states include Texas, Louisiana, California, Kentucky, Michigan, Mississippi, Montana, and New Mexico. *Piney Woods Country Life Sch. v. Shell Oil Co.*, 726 F.2d 225 (5th Cir. 1984) (applying Mississippi law); *Atlantic Richfield Co. v. State*, 262 Cal. Rptr. 683, 688 (Cal. 1989); *Reed v. Hackworth*, 287 S.W.2d 912, 913 (Ky. 1956); *Wall v. United Gas Pub. Serv. Co.*, 152 So. 561, 565 (La. 1934); *Schroeder v. Terra Energy, Ltd.*, 565 N.W.2d 887, 890 n.1 (Mich. Ct. App. 1997); *Mont. Power Co. v. Kravik*, 586 P.2d 298, 303 (Mont. 1978); *Creson v. Amoco Prod. Co.*, 10 P.3d 853, 857 (N.M. Ct. App. 2000); *Heritage Res., Inc. v. NationsBank*, 939 S.W.2d 118, 122 (Tex. 1996).

65. *See Wall*, 152 So. at 562.

66. According to a Pennsylvania trial court, affirmed by the state Supreme Court:

A share of the gas stands on the same footing as a share of the oil. A share of the oil may be delivered at the well or in pipe lines; as a share of the gas could not be delivered *in specie* at the well or elsewhere, the only way of sharing it would be to share in the proceeds of sale.

Akin v. Marshall Oil Co., 41 A. 748, 751 (Pa. 1898).

the well is the lessor's property, and because post-production adds value to the lessor's property, courts in at-the-well states recognize that the lessor and lessee should share in those value-adding costs. Otherwise, a lessee would incur eight-eighths of the costs of post-production when its share is only seven-eighths of the product.

3. Marketable-Product States

Although the at-the-well rule remains the prevailing rule among oil and gas jurisdictions, some courts more recently have developed a different default rule for calculating royalties.⁶⁷ These states, known as the *marketable-product* states, have concluded that lessees should bear the expense of transforming the oil or gas at the wellhead into a *first-marketable product*, even if those expenses are post-production expenses.⁶⁸ In effect, the marketable-product states have changed the point at which production ends. Instead of the wellhead, production ends at some point downstream of the wellhead when the product is first marketable.⁶⁹

The rationale for the marketable-product rule is not based on the property right in oil or natural gas once it reaches the wellhead. Rather, the rationale is based on the theory that a lessee's implied duty to market requires him to bear all the expenses of delivering a first-marketable product.⁷⁰ In this way, the rule seeks to elevate the parties' expectations in entering into the lease above the actual property interests created by the lease.

67. According to one commentator:

If the operation is required to obtain a marketable product, it should be treated as an expense of operation to be borne by the lessee. If, however, it is an operation to improve or to transport an otherwise marketable product, the expense of such operation should be shared on the basis of ownership of the oil or gas, or such expense should be considered in arriving at the value or proceeds from the sale of oil or gas.

3 KUNTZ, *supra* note 22, § 42.2, at 388; accord 3 WILLIAMS & MEYERS, *supra* note 6, § 645.2, at 609-612.9 (recognizing court decisions contrary to the "at-the-well" decisions).

68. The marketable-product decisions include: *Rogers v. Westerman Farm Co.*, 29 P.3d 887, 906 (Colo. 2001); *Garman v. Conoco, Inc.*, 886 P.2d 652, 663 (Colo. 1994); *Schupbach v. Cont'l Oil Co.*, 394 P.2d 1, 5 (Kan. 1964); *Gilmore v. Superior Oil Co.*, 388 P.2d 602, 607 (Kan. 1964); *Mittelstaedt v. Santa Fe Minerals, Inc.*, 954 P.2d 1203, 1205 (Okla. 1998); *Estate of Tawney v. Columbia Natural Res., L.L.C.*, 633 S.E.2d 22, 25 (W. Va. 2006); *Wellman v. Energy Res., Inc.*, 557 S.E.2d 254, 264 (W. Va. 2001). Wyoming has, by statute, defined *costs of production* to include activities often more closely associated with post-production activities. See WYO. STAT. ANN. § 30-5-304 (2000) (lessee pays all non-deductible costs of production including costs of gathering, compressing, dehydrating, and transporting the gas into the market pipeline).

69. See Owen L. Anderson, *Royalty Valuation: Should Royalty Obligations Be Determined Intrinsically, Theoretically, or Realistically?* (pt. 2), 37 NAT. RESOURCES J. 611, 683 (1997) ("[I]n accord with the teaching of the late Professor Kuntz, 'production' should not be regarded as having been completed until a first-marketable product has been obtained.").

70. Even among marketable-product jurisdictions, there is considerable disagreement over the point at which the product is first marketable. Rachel M. Kirk, Comment, *Variations in the Marketable-Product Rule from State to State*, 60 OKLA. L. REV. 769, 808-16 (2007) (comparing the differences in calculating royalties among the marketable-product states).

III. THE MARCELLUS SHALE STATES

Having outlined the general principles regarding the lessor-lessee relationship in other oil and gas jurisdictions, the inquiry now shifts to the Marcellus Shale states, particularly Pennsylvania, West Virginia, Ohio, and New York.⁷¹ Although these states have decided some of the issues associated with the lessor-lessee relationship, the jurisprudence remains largely unrefined, if not undefined. Moreover, unlike their sister states to the west, the Marcellus Shale states are less than uniform in their treatment of these issues.

A. Pennsylvania

Pennsylvania is among the original oil and gas jurisdictions. From 1859 until the turn of the twentieth century, Pennsylvania courts decided many key issues that formed the foundation for the law in other oil and gas jurisdictions. Since the turn of the twentieth century, however, Pennsylvania oil and gas jurisprudence has not developed at the rate the jurisprudence has developed in other oil and gas jurisdictions. As a result of the Marcellus Shale play and the potential for litigation over issues associated with oil and gas leases, Pennsylvania courts may be obligated to revisit, or encounter for the first time, some of the basic principles governing the lessor-lessee relationship.

1. Lessee's Interest in Pennsylvania

Pennsylvania adheres to the ownership theory. Since the early 1920s, courts in Pennsylvania seemed more willing to classify oil and gas as a mineral no different from coal or other stationary minerals beneath the surface of the earth.⁷² Thus, in *Hamilton v. Foster*, the Pennsylvania Supreme Court held that a landowner in Pennsylvania owns the oil and gas beneath the surface of the earth, whether or not he has reduced the oil or gas to possession.⁷³ By adopting the ownership theory, Pennsylvania

71. The Marcellus Shale formation also underlies smaller portions of several other states, such as Maryland. Notably, these states have had virtually no prior experience with oil and gas development and thus have virtually no case law on key issues, including, for example, whether they will apply the rule of capture.

72. *Marshall v. Mellon*, 36 A. 201, 201 (Pa. 1897) (treating oil and gas as solid minerals for purposes of life estates). As noted previously, the rule for coalbed methane is that the owner of the coal interest also owns the coalbed methane. See *U.S. Steel Corp. v. Hoge*, 468 A.2d 1380, 1383-84 (Pa. 1983).

73. 116 A. 50 (Pa. 1922). In effect, *Hamilton* diverged from the archaic rule that oil and gas *in situ* meandered freely beneath the surface of the earth such that no one could own or convey the interest in those natural resources. For the "old" rule, see *Westmoreland & Cambria Natural Gas Co. v. De Witt*, 18 A. 724, 725 (Pa. 1889) ("Water and oil, and still more strongly gas, may be classed by themselves, if the analogy be not too fanciful, as minerals *ferae naturae*. In common with animals, and unlike other minerals, they have the power and the tendency to escape without the volition of the owner . . . Possession of the land, therefore, is not necessarily possession of the gas.").

recognized, as other jurisdictions have, that oil and gas is an estate in land that may be transferred freely by deed or lease.

Historically in Pennsylvania, the lessee's interest in an oil and gas lease changed depending upon the phraseology in the granting clause.⁷⁴ Although the modern jurisprudence suggests that Pennsylvania is trending towards the *fee simple determinable* rule recognized by most oil and gas jurisdictions,⁷⁵ some lingering case law regarding classifications of the lessee's interest in oil and gas leases warrants attention.

Pennsylvania courts have held that a lease conveying merely the exclusive right to mine, along with an attendant possessory right to use the surface, creates essentially a profit a prendre.⁷⁶ The lessee has no interest in the oil or gas in place. Once produced, title to the oil or gas vests as a chattel real.⁷⁷

A lease conveying *the land* for purposes of developing oil and gas creates a lease of the surface estate with the exclusive right to remove oil and gas.⁷⁸ In *Barnsdall v. Bradford Gas Co.*, the Supreme Court of Pennsylvania held that this type of lease also conveys title to the oil and gas in place.⁷⁹ Pennsylvania courts have stated otherwise, concluding instead that the title to the oil and gas under this type of lease does not vest until reduced to possession.⁸⁰ In either case, the lease creates interests in real property.⁸¹

Finally, a lease of "all the oil and gas" to the lessee creates a determinable fee in the oil and gas along with an interest in the surface estate.⁸² The lessee essentially acquires title to the oil and gas in place, much like it would if the lessor conveyed the oil and gas by deed. The lessee has the attendant right to use the surface estate as reasonably necessary to extract the resources.⁸³ The lessor has a possible reversionary interest.⁸⁴

74. John N. Sawyer, *Interests Created by Oil and Gas Leases in Pennsylvania*, 4 U. PITT. L. REV. 274, 277 (1937) ("In Pennsylvania the interests obtained under an oil and gas lease will largely be determined from the form of the granting clause.").

75. *See supra* note 15 and *infra* note 84 and accompanying text.

76. *Kelly v. Keys*, 62 A. 911 (Pa. 1906); *Funk v. Haldeman*, 53 Pa. 229 (1867).

77. *Funk*, 53 Pa. at 243.

78. *See, e.g., Chi. & Allegheny Oil & Mining Co. v. U.S. Petrol. Co.*, 57 Pa. 83, 90 (1868); *see also Sawyer, supra* note 74, at 279, n.28.

79. 74 A. 207 (Pa. 1909).

80. *Duke v. Hague*, 107 Pa. 57, 66 (1884).

81. *Id.* at 66; *see also Lesnick v. Chartiers Natural Gas Co.*, 889 A.2d 1282, 1284 (Pa. Super. Ct. 2005) ("Pennsylvania considers such [natural-]gas 'leases' to be, in reality, transfers of realty.").

82. *Jacobs v. CNG Transmission Corp.*, 332 F. Supp. 2d 759, 773 (W.D. Pa. 2004); *Penn-Ohio Gas Co. v. Franks' Heirs*, 185 A. 280, 281 (Pa. 1936) ("Under the terms of the lease [of "all the oil and gas"], a defeasible title to the oil and gas in place in and under the described tract of land vested in the appellant.").

83. *Chartiers Block Coal Co. v. Mellon*, 25 A. 597, 598 (Pa. 1893). In this and previous sessions, Pennsylvania legislators have introduced legislation that would change the common law rules governing surface use. For a discussion of one such proposal introduced in last year's

2. Performance of Implied Duties in Pennsylvania

Much like the courts' divergent views of a lessee's interest in an oil and gas lease, Pennsylvania has competing case law regarding the standard of performance of implied duties. Courts have applied the objective, prudent-operator standard. They have also applied a subjective *good faith* standard. With respect to specific implied duties, the discussion in the case law is often unclear, but courts seem to recognize the implied duty to protect against drainage, the implied duty to develop the lease, and the implied duty to market production.

a. Prudent-Operator vs. Subjective Good Faith

Although Pennsylvania courts have never expressly adopted the prudent-operator standard by name, the case law reflects that standard. Since the late 1800s, Pennsylvania courts recognized a general rule that an operator has an obligation to develop a mineral estate with reasonable diligence under the circumstances so that "the grantor may receive the compensation or income which both parties must have had in contemplation when the agreement was entered into."⁸⁵ Although this standard, first announced in *Koch's and Balliet's Appeal* in 1880, applied to a lease granting the right to mine iron ore, the standard has been transferred to the oil and gas context.⁸⁶

In *McKnight v. Manufacturers' Natural Gas Co.*, the court seemingly applied an objective standard to performance of the implied duty to

legislative session, see George A. Bibikos, *What Lies Beneath the Surface-Owners' Protection Act?*, IOGA NEWS (Indep. Oil & Gas Ass'n of Pa., Wexford, Pa.), Oct. 2008, at 10, available at http://www.iogapa.org/files/216_October_2008_Newsletter.pdf.

84. As the Superior Court stated:

A lease of minerals in the ground is a sale of an estate in fee simple until all the available minerals are removed; this leaves the lessor with only an interest in the royalties to be paid under the lease, which are personal property. . . . Specifically, the interest granted to lessee is a fee simple determinable; the lessor retains a reversionary interest. The interest reverts to the grantor upon the occurrence of a specified event.

Snyder Bros., Inc. v. Peoples Natural Gas Co., 676 A.2d 1226, 1230 (Pa. Super. Ct. 1996).

85. *Koch's and Balliet's Appeal*, 93 Pa. 434, 442 (1880).

86. *Ray v. W. Pa. Natural Gas Co.*, 20 A. 1065, 1066 (Pa. 1891). In *Ray*, the court stated:

The clear purpose of the lessor was to have his land operated for oil or gas, and the condition was inserted for his benefit. While the obligation on part of the lessee to operate is not expressed in so many words, it arises by necessary implication. The lease was for the expressed purpose of drilling and boring for oil or gas, the lessor, in a certain event, to receive a share of the production as a royalty or rent; and, in another event, to be paid \$500 per annum for each gas-well, the product of which was conducted from the land for consumption. If a farm is leased for farming purposes, the lessee to deliver to the lessor a share of the crops, in the nature of rent, it would be absurd to say, because there was no express engagement to farm, that the lessee was under no obligation to cultivate the land. An engagement to farm in a proper manner, and to a reasonable extent, is necessarily implied.

Id.

develop additional natural gas wells.⁸⁷ In that case, the lease provided that the lessee would pay additional flat-rate royalties if natural gas was found in sufficient quantities to justify its marketing. The lease was silent as to how many wells should be drilled. The plaintiffs sued to recover damages after the lessee failed to drill additional gas wells upon the discovery of a proven natural gas formation.

The court discussed the differences between oil and gas, noting that while oil can be stored, “[i]n gas territory, the lessee may sink many wells, and find gas in them all, but he can utilize only such of them as have a volume and pressure sufficient to enable him to transport the gas through his line, and deliver it to the purchaser.”⁸⁸ Thus, by drilling additional gas wells, the lessee would have jeopardized the producing gas well because the volume and pressure might have dropped and hindered the lessee’s ability to transport it through a pipeline to a distant market.

The court remanded for further findings, but its discussion reflects the prudent-operator standard. In effect, the court concluded that although it would have been prudent for an operator to drill additional oil wells upon discovery of a proven oil formation, it would have been *imprudent* (based on the technology in 1892) for an operator to drill additional wells upon discovery of a proven natural gas formation.⁸⁹

The clearest statement that Pennsylvania follows the prudent-operator standard can be found in *Kleppner v. Lemon*.⁹⁰ In that case, the plaintiff sued to recover for the lessee’s refusal to drill additional wells upon the discovery of a producing well. The lease was silent on this point. There was also evidence that the lessee operated wells on adjacent lands that were draining the plaintiff’s oil. The court noted that once oil or gas is found in paying quantities, the operator is under an implied duty to drill as “many wells as may be reasonably necessary to secure the oil, for the common advantage of both lessor and lessee.”⁹¹

In determining whether the lessee carried out the implied duty to secure the oil and to develop additional wells, the court applied a standard that mirrors the prudent-operator standard:

In determining when and where such wells shall be located, regard must be had to the operations on adjoining lands, and to the well-known fact that a well will drain a territory of much larger extent when the sand rock in which the oil or gas is found is of coarse and loose texture than when it is of fine grain and compact character. *Whatever ordinary knowledge and care would dictate as the proper*

87. 23 A. 164 (Pa. 1892).

88. *Id.* at 166.

89. *Id.*

90. 35 A. 109, 109-10 (Pa. 1896).

91. *Id.* at 109.

*thing to be done for the interest of both lessor and lessee, under any given circumstances, is that which the law requires to be done as an implied stipulation of the contract He [the lessee] is not bound to put down more wells than are reasonably necessary to obtain the oil of his lessor, nor to put down wells that will not be able to produce oil sufficient to justify the expenditure.*⁹²

The evidence suggested that additional wells would have prevented depletion and would have yielded paying quantities. Accordingly, the court enforced the implied duty to drill additional wells, ordered a partial cancellation of the undeveloped portion of the leasehold, and awarded damages for the drainage.⁹³

Although the courts in *McKnight* and *Kleppner* seem to apply the prudent-operator standard, Pennsylvania courts have applied a *subjective-good-faith* standard in a handful of other cases. Under this standard, courts defer to the operator's business judgment in developing the leased premises, and a plaintiff cannot recover unless he or she proves bad faith or fraud.⁹⁴

For example, in *Colgan v. Forest Oil Co.*, the landowner sought forfeiture of an oil and gas lease because the operator refused to drill additional wells on an unproven portion of the plaintiff's land.⁹⁵ In that case, the lessee drilled five wells in one area of the plaintiff's land, but none in another area. On adjacent lands near that area (subject to a lease with a different landowner), the lessee drilled three producing wells that were "light producers" and not profitable.⁹⁶ There was no evidence of fraud or bad faith. Consequently, the court held that, absent proof of fraud or bad faith, the judgment of *the lessee* could not be questioned:

So long as the question is one of business judgment and management, the lessee is not bound to work unprofitably to himself for the profit of the lessor; and the parties must be left, as in other cases, to their own ways. It is only when a manifestly fraudulent use of opportunities and control is shown that courts are authorized to interfere.

92. *Id.* at 109-10 (emphasis added).

93. As the court explained:

The operator has the right, as we have seen, to locate the well he is to put down; but we think the court below was justified in holding that the evidence afforded good ground for the belief that a paying well could be found on the upper end of the triangle, if so located fairly to command the oil underlying the land.

Id. at 110.

94. See *supra* note 27 (discussing standard of performance other than the prudent-operator standard). See, e.g., *infra* notes 95, 98, and 100. The good-faith standard has been applied as recently as December 2008. See *T.W. Phillips Gas & Oil Co. v. Jedlicka*, 964 A.2d 13, 19 (Pa. Super. Ct. 2008).

95. 45 A. 119 (Pa. 1899).

96. *Id.* at 121.

...
... So long as the lessee is acting in good faith, on business judgment, he is not bound to take any other party's, but may stand on his own. Every man who invests his money and labor in a business does it on the confidence he has in being able to conduct it in his own way. No court has any power to impose a different judgment on him, however erroneous it may deem his to be. Its right to interfere does not arise until it has been shown clearly that he is not acting in good faith on his business judgment, but fraudulently, with intent to obtain a dishonest advantage over the other party to the contract.⁹⁷

Likewise, in *Young v. Forest Oil Co.*, decided the same day as *Colgan*, the plaintiffs sought forfeiture, damages, or specific performance of the implied duty to further develop the property because the lessee allegedly drilled wells on adjacent lands that drained the oil and gas from beneath plaintiffs' land.⁹⁸ Again, there was no evidence of fraud or bad faith. In refusing relief, the court stated:

The operator, who has assumed the obligations of the lease, has put his money and labor into the undertaking, and is now called upon to determine whether it will pay to spend some thousands of dollars more in sinking another well to increase the production of the tract, *is entitled to follow his own judgment*. If that is exercised in good faith, a different opinion by the lessor, or the experts, or the court, or all combined, is of no consequence, and will not authorize a decree interfering with him.⁹⁹

Finally, in *Barnard v. Monongahela Natural Gas Co.*, the court upheld, *per curiam*, the trial court's determination that the operator in that case exercised good faith by working a well on an adjacent property that incidentally drained the plaintiffs' oil.¹⁰⁰ Interestingly, in this case the trial court stated that the rule in *Kleppner* (adopting an objective test) was "explained in the later cases of *Colgan* . . . and *Young*["]."¹⁰¹ The trial court concluded that because the plaintiffs failed to prove the operator's fraud or bad faith, they could neither enjoin the drilling of the well on the adjacent land nor recover damages for any depletion of the oil underneath their land.¹⁰²

97. *Id.* at 120-21.

98. 45 A. 121, 121-22 (Pa. 1899).

99. *Id.* at 122 (emphasis added).

100. 65 A. 801 (Pa. 1907).

101. *Id.* at 803.

102. *Id.* See also *Adams v. Stage*, 18 Pa. Super. 308, 312 (1901) ("If the judgment of the defendant was exercised in good faith, and involved no manifestly fraudulent use of opportunities, we cannot say that he failed to discharge any duty to the plaintiff arising out of his contract and the operations thereunder.").

b. Specific Implied Duties in Pennsylvania

The Pennsylvania Supreme Court is heralded as the first court to recognize that every oil and gas lease contains specific implied duties.¹⁰³ In *Stoddard v. Emery*, the parties executed an oil and gas lease in which the operator agreed to drill a well within eight months of the execution date and an additional well at some unspecified time thereafter.¹⁰⁴ The landowner sued for breach of the lease ostensibly because the operator failed to drill additional wells pursuant to an oral agreement between the parties. The Pennsylvania Supreme Court concluded that because the lease expressly provided the number of wells the operator was obliged to drill, “there is no room for any implication that there should be some other number.”¹⁰⁵

The holding in *Stoddard* is unremarkable and not nearly as influential on the law of implied duties as is the following dicta:

Had there been nothing said in the contract on the subject, there would of course have arisen an *implication* that the property *should be developed reasonably, and evidence of a custom of reasonable development by boring a given number of wells in a certain space of time, would have been competent and perhaps controlling*. But that doctrine has no application in a case when the parties have expressly agreed in the contract how many wells shall be bored.¹⁰⁶

Since *Stoddard*, Pennsylvania courts have recognized the implied duty to protect against drainage, the implied duty of development, and the implied duty to market production.

Protection

The implied duty to protect against drainage in Pennsylvania appears to be subsumed within the implied duty to develop the leasehold. In *Kleppner v. Lemon*, for example, the court imposed upon the lessee the duty to drill additional oil wells after discovery of a proven formation that yielded oil in paying quantities.¹⁰⁷ The court’s discussion of the implied duty was not, however, limited to the duty to drill additional wells to extract all the oil from the plaintiff’s lands. Rather, the court noted that the lessee had an obligation to secure the oil and gas, given the allegation that the lessee’s wells on adjacent lands were depleting the plaintiff’s oil. The court specifically stated that “[i]t is an implied condition of every

103. 5 WILLIAMS & MEYERS, *supra* note 6, § 802, at 3 (“Implied covenants in oil and gas leases were launched by a *dictum* of the Pennsylvania Supreme Court in 1889 in the case of *Stoddard v. Emery*.”)

104. 18 A. 339 (Pa. 1889).

105. *Id.* at 339.

106. *Id.* (emphasis added).

107. *Kleppner v. Lemon*, 35 A. 109 (Pa. 1896).

lease of land for the production of oil therefrom that, when the existence of oil in paying quantities is made apparent, the lessee shall put down so many wells as may be reasonably necessary *to secure the oil*, for the common advantage of both lessor and lessee.”¹⁰⁸

Development

There is no shortage of case law discussing the implied duty to develop proven formations. Most cases discussing implied duties in general hold that, upon the discovery of oil or gas in paying quantities, the lessee is under an obligation to drill additional wells as reasonably necessary to extract the oil and gas beneath the landowner’s property.¹⁰⁹

In *Aye v. Philadelphia Co.*, the Supreme Court of Pennsylvania seemed to hold that a lessee may have an implied duty to explore and develop unproven formations.¹¹⁰ In that case, the lease provided that the lessee should drill a test well on the property and, upon discovery of oil, drill additional wells. The lease was silent regarding the lessee’s obligations if the test well proved dry. The lessee drilled two test wells, both of which proved dry. The plaintiffs sued, contending that the lessee was under an implied obligation to keep drilling and that the failure to do so constituted an abandonment of the leasehold. The court concluded that the lessee was under an implied obligation “to proceed with the exploration *and development* of the land with reasonable diligence, according to the usual course of the business, and [that] a failure to do so amount[ed] to an abandonment which will sustain a re-entry by the lessor.”¹¹¹

Most recently the Pennsylvania Supreme Court, in *Jacobs v. CNG Transmission Corp.*, reaffirmed the existence of the development

108. *Id.* at 109 (emphasis added). Affirming its previous holdings, the Pennsylvania Supreme Court stated:

As we have repeatedly held, it is an implied condition of every lease of land for the production of oil therefrom that when the existence of oil in paying quantities is made apparent the lessee shall put down as many wells as may be reasonably necessary *to secure the oil* for the common advantage of both lessor and lessee. This, the lessees say they have done, and for that reason decline to make any further expenditure in the development of the property.

Highfield Co. v. Kirk, 93 A. 815, 817 (Pa. 1915) (emphasis added).

109. See, e.g., *Jacobs v. CNG Transmission Corp.*, 772 A.2d 445 (Pa. 2001); *Appeal of Baird*, 6 A.2d 306 (Pa. 1939); *Highfield Co.*, 93 A. at 817; *Aye v. Philadelphia Co.*, 44 A. 555 (Pa. 1899); *Kleppner*, 35 A. at 109; *McKnight v. Mfrs. Natural Gas Co.*, 23 A. 164 (Pa. 1892).

110. 44 A. 555, 556 (Pa. 1899).

111. *Id.* In a subsequent decision, the Pennsylvania Supreme Court stated:

In leases of the nature we are considering the lessor has a greater interest in the oil than the right to receive the royalty for he has a right to receive a fixed proportion of the oil in kind as produced and the lease must be operated for the mutual benefit of the lessor and lessee. The lessee is bound to explore for and determine whether there is oil and gas in the land and if found in paying quantities to bring it to the surface.

Baird, 6 A.2d at 311.

covenant.¹¹² In that case, the Third Circuit Court of Appeals petitioned the Pennsylvania Supreme Court to certify whether Pennsylvania recognized the implied duty. After reviewing cases the court held that the implied duty to develop exists in Pennsylvania.¹¹³

Although the court reaffirmed the existence of the implied duty of development, it noted that the lease may substantially limit its operation:

An implied covenant to develop the underground resources appropriately exists where the only compensation to the landowner contemplated in the lease is royalty payments resulting from the extraction of that underground resource. Where, however, the parties have expressly agreed that the landowner shall be compensated if the lessee does not actively extract the resource, then the lessee has no implied obligation to engage in extraction activities. Thus, so long as the lessee continues to pay the landowner for the opportunity to develop and produce oil or gas, the lessee need not actually drill wells. At the point where that compensation ceases due to the expiration of the term of the lease, or pursuant to the terms of the lease itself, the lessee then has an affirmative obligation either to develop and produce the oil or gas or terminate the landowner's contractual obligations. As this Court stated in *McKnight v. Manufacturers' Natural Gas Co.*, 146 Pa. 185, 204, 23 A. 164, 166 (1892): "The defendant cannot hold the premises and refuse to operate them."¹¹⁴

Thus, the implied duty to develop exists unless the lease expressly entitles a lessee to some compensation during periods of non-development. Ultimately, the Third Circuit remanded to the district court to determine whether the express provisions of the lease trumped the implied duty to develop. The lease provided that storage payments during the primary term would keep the lease alive into the secondary term whether development commenced or not. On remand, the district court concluded, intriguingly, that the express language of the lease providing for a storage payment did *not* trump the implied covenant.¹¹⁵

112. 772 A.2d 445 (Pa. 2001). A federal district court in Pennsylvania, in an unreported opinion, concluded that Pennsylvania does not recognize any implied duty to develop natural gas under Pennsylvania law. *AG Servs. v. T.W. Phillips Gas & Oil Co.*, 1994 WL 762150, at *14 (W.D. Pa. 1994) ("Under Pennsylvania law and controlling decisions of the Pennsylvania Supreme Court, no implied covenant to develop exists with respect to operations for the production of natural gas.") The court cited *McKnight* for this proposition. *McKnight*, however, held that a prudent operator would not have drilled additional natural gas wells because the increase in wells would have resulted in a decrease in the necessary pressure to transport the gas to a distant market. *See supra* note 27 and accompanying text.

113. *Jacobs*, 772 A.2d at 455.

114. *Id.*

115. *Jacobs v. CNG Transmission Corp.*, 332 F. Supp. 2d 759, 788-92 (W.D. Pa. 2004).

Marketing

In *Iams v. Carnegie Natural Gas Co.*, the Pennsylvania Supreme Court recognized that an implied duty to market production exists in Pennsylvania.¹¹⁶ In that case, the lease provided that if any gas would be found on the premises in quantities “sufficient to justify marketing” the gas, the lessor would receive a one-eighth royalty on the production. The lessee produced gas from the lessor’s property but did not market it. The trial court instructed the jury that the lessee had the implied obligation to market any gas found on the lessor’s land.

The trial court stated that “the defendant [lessee] was bound to market [the production], or show some good reason for not having done so.”¹¹⁷ The trial court also instructed the jury that the lessee “would not be required to market the gas at a loss, but only at a reasonable profit; and in determining whether it could be so marketed, the distance to market, *the expense of marketing and everything of that kind* should be taken into consideration.”¹¹⁸

On appeal the Pennsylvania Supreme Court upheld the instructions to the jury and concluded that the lessee, after producing the resource, “was then under an obligation to operate for the common good of both parties, and to pay the rent or royalty reserved.”¹¹⁹ Relying on *Glasgow v. Chartiers Oil Co.*, the court concluded: “If he [the lessee] explores and finds oil or gas, the relation of landlord and tenant or vendor and vendee is established, and the tenant would be under an implied obligation to operate for the common good of both parties, and pay the rent or royalty reserved.”¹²⁰

c. Remedies for Breach of Implied Duties

Though not specifically in the context of implied covenants in an oil or gas lease, Pennsylvania adheres to the general rule that damages are the appropriate remedy for breach of lease covenants.¹²¹ Moreover, Pennsylvania law abhors a forfeiture of oil and gas lease for breach of a covenant, consistent with a majority of jurisdictions.¹²² However, in at

116. 45 A. 54, 54-55 (Pa. 1899).

117. *Id.* at 55.

118. *Id.* (emphasis added).

119. *Id.*

120. *Id.* (citing *Glasgow v. Chartiers Oil Co.*, 25 A. 232, 233 (Pa. 1892)).

121. *See, e.g.*, *Girolami v. Peoples Natural Gas Co.*, 76 A.2d 375, 377 (Pa. 1950) (noting that damages, rather than forfeiture, are the adequate remedy for breach of covenant to pay royalties).

122. *Penn-Ohio Gas Co. v. Franks’ Heirs*, 185 A. 280, 281 (Pa. 1936). The Supreme Court of Pennsylvania has also explained that:

There is nothing in the lease providing that it should be forfeited by the nonpayment of the rental. The only forfeiture contemplated is that resulting from an abandonment of the lease and the removal of the lessee’s property from the premises; and the lessor

least one case involving fraudulent drainage of a leasehold, Pennsylvania has ordered cancellation for breach of the protection coverage.¹²³

3. Royalty Calculations in Pennsylvania

Pennsylvania is unique among the Marcellus Shale states in that it has enacted a minimum-royalty statute. Thus, while in other jurisdictions the calculation of royalties depends primarily upon the construction of royalty clauses in a lease, the analysis in Pennsylvania begins with the threshold requirement in the statute and its influence on the ability of parties to negotiate royalty clauses in a lease. There is, however, no specific prohibition on post-production deductions in the statute. The case law, moreover, supports the proposition that post-production costs may be subtracted from a royalty.

a. The Minimum Royalty Act

The Minimum Royalty Act (the “Act”) provides that: “A lease or other such agreement conveying the right to remove or recover oil, natural gas or gas of any other designation from lessor to lessee shall not be valid if such lease does not guarantee the lessor at least one-eighth royalty of all oil, natural gas or gas of other designations removed or recovered from the subject real property.”¹²⁴ In enacting the statute, the General Assembly of Pennsylvania ostensibly sought to guarantee a minimum royalty to lessors and ensure that the fractional interest would be at least one-eighth of the oil or gas removed or recovered from their property.¹²⁵

Despite its existence since 1979, courts in Pennsylvania have not interpreted the meaning of the minimum royalty requirement in the Act. Under the plain language of the statute, a lease must include a clause that guarantees the lessor at least a one-eighth royalty. Based on the accepted definition of royalty in the industry, the Act merely requires that a lease guarantee a royalty without charging the lessor any costs of production. In this way, the Act is an in kind statute that requires lessees to guarantee

could not have rescinded the lease because the lessee failed to pay the monthly rental. He had a right to enforce payment of the same by suit against the lessee for each monthly default, and, upon such default, in a short time any right of the latter in the leased premises would have been divested in proper proceedings by the former.

Marshall v. Forest Oil Co., 47 A. 927, 929 (Pa. 1901).

123. Kleppner v. Lemon, 35 A. 109, 110 (Pa. 1896).

124. 58 PA. STAT. ANN. § 33 (West 1996).

125. See LEGISLATIVE JOURNAL—SENATE, at 432 (May 8, 1979) (remarks of Senator Moore) (“I agree with the objectives of Senate Bill No. 568, that is to guarantee royalties to lessors”); LEGISLATIVE JOURNAL—HOUSE, at 1373 (June 21, 1979) (remarks of Representative Smith) (“I can only respond to the gentleman by saying that for about 150 years, 12 1/2 percent or 1/8 percent has been the landowner’s share of oil and gas in Pennsylvania. And this bill does not change that.”).

at least one-eighth of the oil or gas in kind (at the wellhead) or one-eighth of the value of the oil or gas at the well. The Act is notably silent on post-production costs.¹²⁶

b. Post-Production Costs

Pennsylvania courts have long recognized that post-production costs may be deducted from royalty payments. In this way, Pennsylvania is consistent with the majority view that royalties should be calculated at the well (and thus net of post-production costs) absent some agreement to the contrary.

In *Akin v. Marshall Oil Co.*, for example, royalty owners sued for an account of their profits from the sale of gas under a lease.¹²⁷ The lease provided that each plaintiff would receive one-fourth of the profits above cost.¹²⁸ The trial court concluded that the plaintiffs were entitled to an account from the lessees “of the profits realized from the sale of the gas,” and to “ascertain the profits, *all expenses of every kind must first be deducted from the proceeds of the sale.*”¹²⁹ Those expenses included “cost of pipes and other materials in keeping up the lines; payments for right of way; payments to all employees engaged in attending to the well, pipes, etc., *and the business generally of saving, transporting, and selling the gas.*”¹³⁰ The Supreme Court of Pennsylvania affirmed, per curiam, the trial court’s opinion.¹³¹

In *Poterie Gas Co. v. Poterie*, the lease provided that the lessor would receive a royalty of “one-third of the *profits realized* from oil or gas found” on his property.¹³² Although the lessee produced oil and gas, the lessee did not make any profit because of the costs of drilling, laying pipeline, and thereafter marketing. After not receiving any royalties, the lessor disconnected the line to the well, ostensibly pursuant to a forfeiture clause in the lease, and demanded payment. At trial the lessee argued that it did not receive any profits and therefore was not obligated to pay the lessor any royalties. In response the lessor argued that profits meant

126. A great many lawsuits over the meaning of the Act have been filed in Pennsylvania by landowners seeking invalidation of leases that allegedly fail to guarantee a one-eighth royalty as required by the Act. Most of the cases are now in federal district courts and have not advanced beyond the motion-to-dismiss stage of the litigation. The Supreme Court of Pennsylvania is considering a petition to exercise extraordinary jurisdiction filed by one of the production companies involved in the litigation to decide the statutory question. As of the date of this publication the Pennsylvania Supreme Court has not acted on the petition.

127. 41 A. 748, 751 (Pa. 1898).

128. *Id.* at 749. This is the court’s summary of the terms of the lease, not the actual terms of the lease.

129. *Id.* at 751 (emphasis added).

130. *Id.* (emphasis added).

131. *Id.*

132. 36 A. 232, 233 (Pa. 1897) (emphasis added).

income “without regard to the expense of procuring or marketing such gas or oil.”¹³³

The trial court in *Poterie* concluded, and the Supreme Court affirmed, that because the lessee made no profits, the lessor was not entitled to a royalty. The courts disagreed with the lessor’s argument that royalties should be calculated without regard to expenses in marketing the product, stating that this interpretation “would not be equitable or just, and the language used [in the lease] does not require such a construction.”¹³⁴ The court defined profit as “the excess of receipts over expenditures; that is, net earnings.”¹³⁵ Consequently, the royalty would be calculated based on the profits from oil and gas sales after deducting expenses.¹³⁶

Finally, in the unusual case of *Clearfield Development Corp. v. Devonian Gas & Oil Co.*, the Supreme Court discussed the types of costs that could be deducted from royalties.¹³⁷ In this case a producer leased lands from the Commonwealth under an oil and gas lease and posted a \$25,000 bond as collateral to enter the land and drill. In turn, the producer sold a “one-eighth (1/8) interest in the net proceeds from the sale of any oil or gas” to a land developer.¹³⁸ The net proceeds consisted of “sums received from sales of oil or gas . . . less . . . royalties . . . and the cost of managing, operating and marketing the same.”¹³⁹ After the wells produced natural gas, the well operator began paying sums received to the land developer in accordance with the lease but tried to deduct the bond payments from the payment, claiming that bond payments constituted costs of operations that could be deducted pursuant to the lease. The court disagreed and concluded that the costs of operations that could be deducted “could mean only those charges or items of expense inseparably connected with the productive end of the business.”¹⁴⁰ The bond payments were not “part of the expense in operating the wells or selling the gas or oil” that could be deducted from the payment.¹⁴¹

133. *Id.* at 236.

134. *Id.*

135. *Id.*

136. *Id.* This case has been cited by commentators as one of the earliest cases authorizing the deduction of expenses from a royalty payment. See Owen L. Anderson, *Royalty Valuation: Should Royalty Obligations Be Determined Intrinsically, Theoretically, or Realistically?* (pt. 1), 37 NAT. RES. J. 547, 588 n.156 (1997) (noting that royalties can be cost-free or cost-bearing and citing *Poterie* as an example with the following explanation: “Under the lease at issue the lessee agreed to pay the lessor ‘1/3 of all profits realized from oil or gas,’ found on the premises. The court concluded that the word profits was not equivalent to income, but meant the amount realized from the sale of the production after deducting expenses.”).

137. 122 A.2d 718 (Pa. 1956).

138. *Id.* at 719.

139. *Id.*

140. *Id.*

141. *Id.*

The *Akin*, *Poterie*, and *Clearfield* cases would support the argument that Pennsylvania already follows the traditional view that all types of post-production costs may be deducted from royalty payments.¹⁴²

B. West Virginia

Like Pennsylvania, most of the seminal decisions in West Virginia were rendered in the early to mid 1900s. In many instances, West Virginia differs from Pennsylvania and other oil and gas jurisdictions, particularly in the way courts treat the nature of the lessee's interest in the lease and in the rules governing royalty calculations.

1. Lessee's Interest in West Virginia

It is fairly well-settled that, like other states, West Virginia follows the ownership theory.¹⁴³ The West Virginia Supreme Court, in *Preston v. White*, first announced this rule in 1905.¹⁴⁴ In that case the court explained that oil and gas interests constitute a separate estate in land, and as such, a landowner may convey his interests in whatever oil and gas exists beneath his property without conveying the surface estate.¹⁴⁵ In *Bogges v. Milam*, the court confirmed the ownership-in-place theory and stated that "the owner of the fee is vested with title in the oil and gas underlying the boundary to which he holds title"¹⁴⁶

142. These cases all predate the Minimum Royalty Act. If a court determines the minimum-royalty requirement prohibits lessees from deducting post-production costs from a royalty payment, that statute might effectively overrule any contrary assertion in *Akin*, *Poterie*, and *Clearfield*. There is a way, however, to read the Act and the cases together. *Akin*, *Poterie*, and *Clearfield* suggest that all costs (including, presumably, upstream production costs) could be deducted from a royalty payment. The Act, as stated above, should be interpreted only as prohibiting lessees from deducting production costs. To read the case law and the statute in harmony, a court should conclude that the Act limits *Akin*, *Poterie*, and *Clearfield* to the extent they would authorize lessees to deduct production costs from a royalty payment but does not affect the portion of the opinions that seem to allow deductions for post-production activities.

143. Thomas Franklin McCoy, *Mineral Interests and the Executive Right in West Virginia*, 66 W. VA. L. REV. 221, 224 n.13 (1964) (citing the following cases for support: *Robinson v. Milam*, 24 S.E.2d 236 (1942); *Williamson v. Jones*, 19 S.E. 436 (1894)) ("Oil and gas in West Virginia are susceptible to absolute ownership in place.").

144. 50 S.E. 236 (W. Va. 1905).

145. *Id.* at 237 ("When thus severed in ownership, the minerals become a separate corporeal hereditament, and their ownership is attended with all the attributes and incidents peculiar to ownership of land."); see also *Kennedy v. Ohio Fuel Oil Co.*, 101 S.E. 159, 161-62 (W. Va. 1919) (construing a statute, court concluded that "[t]he terms 'land,' 'real estate' and 'real property' include all tenements, hereditaments and interest in land, except chattel interests Oil and other minerals in place, therefore, are included in the general term 'land.'").

146. 34 S.E.2d 267, 269 (W. Va. 1945). According to the West Virginia Supreme Court:

Historically there was some question of whether the ownership of an oil and gas interest constituted an interest in real property and was therefore subject to any partition. *Bogges v. Milam*, 127 W.Va. 654, 34 S.E.2d 267 (1945), settled the question that oil and gas in place are real estate and in effect overruled *Wood County Petrol. Co. v. West Virginia Transportation Co.*, 28 W.Va. 210 (1886), which had held oil and gas, because of their fugacious nature, were not subject to absolute ownership until reduced to actual possession.

Despite some confusion in the case law and commentary over the nature of the lessee's interest in an oil and gas lease,¹⁴⁷ it seems fairly clear that a lessee in West Virginia acquires a mere incorporeal right (i.e., a license) in the lease to explore for oil and gas. The lessee's title is contingent and only vests upon discovery of oil or gas.¹⁴⁸ A lease does not convey any real property interest in the oil or gas in place.¹⁴⁹ Rather, once extracted, the oil and gas becomes the personal property of the lessee.¹⁵⁰

2. Performance of Implied Duties in West Virginia

West Virginia follows the prudent-operator standard, despite some language in case law suggesting that the subjective judgment of the lessee is an appropriate factor to consider when evaluating a breach of implied duties. West Virginia also recognizes several implied duties.

a. Prudent-Operator Standard

As early as 1913, the West Virginia Supreme Court, in *Jennings v. Southern Carbon Co.*, announced the rule that a lessee is bound by a standard of conduct in performing implied duties recognized in oil and gas leases.¹⁵¹ In the context of the development and drainage covenants, the landowners in *Jennings* sued the operators for failing to further develop deep formations after discovering natural gas in shallow formations and for failing to drill additional wells near the boundary of the lessor's land to prevent drainage. The court noted that the lease did not mention the depth of wells to be drilled, the obligation of the lessee to search for additional formations, or the obligation of the lessee to drill

Consol. Gas Supply Corp. v. Riley, 247 S.E.2d 712, 716 n.4 (W. Va. 1978).

147. Larrick Bruce Stapleton, *Real Property—Oil and Gas Leases—Rights of Lessor Against Sublessee*, 61 W. VA. L. REV. 72, 74 (1958) (“It is difficult to ascertain whether the lessee's interest under an oil and gas lease is regarded as real or personal property in West Virginia.”).

148. Energy Dev. Corp. v. Moss, 591 S.E.2d 135 (W. Va. 2003) (Albright, J., dissenting). Justice Albright's dissent provides a sound summary of the law of West Virginia in this regard:

Under our law an oil and gas lease grants first a contingent title—an inchoate right or mere license—to explore for oil and natural gas; if either is found, a right vests in the lessor to produce such minerals and, in turn, to take title to the oil or gas produced as personalty when either is actually extracted from the land.

Id. at 154 (citing *S. Penn Oil Co. v. Haught*, 78 S.E. 759 (W. Va. 1913); *McGraw Oil & Gas Co. v. Kennedy*, 64 S.E. 1027 (W. Va. 1909); *Lowther Oil Co. v. Miller-Sibley Oil Co.*, 44 S.E. 433 (W. Va. 1903)).

149. This is somewhat contradictory to *Lawson v. Kirchner*, in which the Supreme Court of West Virginia held that a lease is a contingent sale of the oil and gas in place. 40 S.E. 344, 347 (W. Va. 1901). See also *Arbaugh v. Raines*, 184 S.E.2d 620, 623 (W. Va. 1971) (citing *Lawson* for the proposition that a lease is a contingent sale of oil and gas in place).

150. *But see* *Haskell v. Sutton*, 44 S.E. 533 (W. Va. 1903) (suggesting that an oil and gas lease is a conveyance of an interest in real property).

151. 80 S.E. 368, 369-70 (W. Va. 1913). See also *St. Luke's United Methodist Church v. CNG Dev. Co.*, 663 S.E.2d 639 (W. Va. 2008) (recognizing the prudent-operator rule in West Virginia).

offset wells.¹⁵² As the court noted, “from the absence of such stipulations, it must not be assumed that the lease is silent on the subject, or that these matters are subject alone to the arbitrary will of the lessee.”¹⁵³

The *Jennings* court, citing the prudent-operator standard in *Brewster v. Lanyon Zinc Co.*, concluded that the landowners stated a claim for breach of an implied covenant to develop the leased premises as an ordinary operator would in similar circumstances.¹⁵⁴ In announcing the rule, the court first stated that once oil or natural gas is found in paying quantities, the operator

shall drill such number of wells as in the exercise of sound judgment *he may deem reasonably necessary* to secure either oil or gas, or both, for the mutual advantage of the owner of the land and of himself as operator under the lease, also for the protection of the lands leased from drainage through wells on adjoining or contiguous lands.¹⁵⁵

The operator’s judgment is entitled to deference as to “when, and where, and how many wells he shall drill” but those decisions “must conform to that judgment generally exercised by other operators under similar circumstances and conditions and in view of the real purpose and intention of the parties when entering into the agreement.”¹⁵⁶

b. Specific Implied Duties in West Virginia

The specific implied duties recognized by West Virginia courts include the duty to protect against drainage, the duty of development, and the duty to market production.

Protection

In *Adkins v. Huntington Development & Gas Co.*, the West Virginia Supreme Court held that lessees are under an implied obligation to protect the leased premises from drainage resulting from wells placed on adjacent property.¹⁵⁷ In that case, the plaintiffs sued to cancel a lease or enforce the implied development and protection covenants after the lessee failed to drill an offset well and additional development wells. The court stated that “in the absence of an express covenant, [there is] an implied obligation on his part to drill the number of wells reasonably

152. *Jennings*, 80 S.E. at 369.

153. *Id.*

154. *Jennings*, 80 S.E. at 371-72 (citing *Brewster v. Lanyon Zinc Co.*, 140 F. 801, 814 (8th Cir. 1905)).

155. *Id.* at 369 (emphasis added).

156. *Id.* at 370. *See also* *Grass v. Big Creek Dev. Co.*, 84 S.E. 750, 756-57 (W. Va. 1915). *But see* *Allen v. Colonial Oil Co.*, 115 S.E. 842 (W. Va. 1923) (applying the subjective good faith standard).

157. 168 S.E. 366, 367-69 (W. Va. 1933).

necessary to develop the property and prevent drainage by operation on adjoining lands.”¹⁵⁸ The implied duty was qualified somewhat in *Trimble v. Hope Natural Gas Co.*, in which the court stated that the drainage must be substantial before a lessor could recover for a breach of the implied duty.¹⁵⁹

Development

The court in *Adkins* also recognized and applied the implied duty of development.¹⁶⁰ In holding that the lessee breached the development covenant, another West Virginia court also noted that a lessor cannot ordinarily require his lessee to produce additional wells

except upon proof to the effect that operators for oil and gas of ordinary prudence and experience in the same neighborhood under similar conditions have been proceeding successfully with the further development of their lands or leases, and the further fact that additional wells would likely inure to the mutual profit of both lessors and lessee.¹⁶¹

Marketing

The West Virginia Supreme Court recognized an implied duty to market in *Wellman v. Energy Resources, Inc.*¹⁶² In that case, plaintiffs sued to terminate the lease for the lessee’s failure to drill new wells and for failure to pay proper royalties from a producing well. The case is largely cited for its discussion (and apparent adoption) of the marketable-product rule for calculating royalties. In discussing the propriety of the lessee’s deduction of post-production costs from the royalty, the court stated, in conclusory fashion, that “[l]ike those states [the marketable-product states], West Virginia holds that a lessee impliedly covenants that he will market oil or gas produced.”¹⁶³

158. *Id.* at 367.

159. 187 S.E. 331, 337-38 (W. Va. 1936); *Hall v. S. Penn Oil Co.*, 76 S.E. 124, 126 (W. Va. 1912) (“Obviously there can be no implied covenant against the allowance of any drainage at all, however slight.”).

160. *See Adkins*, 168 S.E. at 369; *accord Jennings v. S. Carbon Co.*, 80 S.E. 368, 369 (W. Va. 1913).

161. *St. Luke’s United Methodist Church v. CNG Dev. Co.*, 663 S.E.2d 639, 643 n.3 (W. Va. 2008) (recognizing the implied duty of development); *accord Jennings*, 80 S.E. at 369.

162. 557 S.E.2d 254 (W. Va. 2001).

163. *Id.* at 265 (citing ROBERT TUCKER DONLEY, *THE LAW OF COAL, OIL, AND GAS IN WEST VIRGINIA AND VIRGINIA* § 104, at 130 (1951) (“In the absence of an express covenant to market either oil or gas, the court implies one in order to effectuate the basic purposes of the lease, which, after all, is to enable the lessor to convert his minerals into cash.”)). Interestingly, the court did not decide whether the lessee in *Wellman* breached an implied marketing covenant, so it is dicta. However, subsequent cases have cited *Wellman* for the proposition that West Virginia recognizes an implied marketing covenant. *Estate of Tawney v. Columbia Natural Res., LLC*, 633 S.E.2d 22 (W. Va. 2006).

c. Remedies for Breach of Implied Duties

West Virginia recently joined the majority of jurisdictions recognizing that the usual remedy for breach of implied covenants is damages.¹⁶⁴ Only if damages are proven to be wholly inadequate, partial or total rescission of a lease for breach of implied duties may be an appropriate remedy, provided the lessee be given an opportunity within a reasonable time to fulfill the implied covenant.¹⁶⁵

3. Royalty Calculations in West Virginia

West Virginia is unquestionably a marketable-product jurisdiction. In *Wellman* the West Virginia Supreme Court expressly adopted the rule:

This Court believes that the rationale employed by Colorado, Kansas, and Oklahoma in resolving the question of whether the lessor or the lessee should bear “post-production” costs is persuasive. Like those states, West Virginia holds that a lessee impliedly covenants that he will market oil or gas produced. Like the courts of Colorado, Kansas, and Oklahoma, the Court also believes that historically the lessee has had to bear the cost of complying with his covenants under the lease. It, therefore, reasonably should follow that the lessee should bear the costs associated with marketing products produced under a lease. Such a conclusion is also consistent with the long-established expectation of lessors in this State, that they would receive one-eighth of the sale price received by the lessor.

In view of all this, this Court concludes that if an oil and gas lease provides for a royalty based on proceeds received by the lessee, unless the lease provides otherwise, the lessee must bear all costs incurred in exploring for, producing, marketing, and transporting the product to the point of sale.¹⁶⁶

164. *St. Luke's*, 663 S.E.2d at 639.

165. The court stated:

Upon our careful review of the law in this area in conjunction with the actions taken by the parties, we conclude that the trial court should impose a reasonable time period during which Dominion may undertake efforts to further develop the leased property. If at the conclusion of that time period, Dominion has failed to commence additional drilling operations on the property, the trial court should proceed to take evidence to determine whether Appellant can prove either a breach of the implied duty of further development or that she has suffered extreme hardship due to the alleged underdevelopment of the leased property. If either breach of an implied covenant to develop or extreme hardship can be established, then the remedy of partial rescission may be utilized to prevent Dominion from continuing to hold onto the lease without meeting its obligation to explore, exploit, and develop.

Id. at 641.

166. *Wellman*, 557 S.E.2d at 265 (citation omitted).

In dicta the court did not foreclose the possibility that, if a lease so provided, a lessor may be charged his proportionate share of post-production costs.¹⁶⁷

In *Estate of Tawney v. Columbia Natural Resources*, the court followed *Wellman's* approval of the marketable-product rule and expounded upon it significantly.¹⁶⁸ The landowners (several thousand of them) in this class action contended that the lessee failed to disclose that post-production costs had been deducted from royalty payments. Columbia had contended that all of the leases clearly and unambiguously allowed the lessee to deduct post-production costs based on the accepted meaning of terminology in the industry. The West Virginia Supreme Court reviewed a certified question from its trial court regarding whether the following lease language allowed deductions for post-production costs: “at the well” or “at the wellhead;” “an amount equal to 1/8 of the price, net of all costs beyond the wellhead;” and “less all taxes, assessments, and adjustments.”¹⁶⁹

The West Virginia Supreme Court concluded that these phrases in a lease were ambiguous, and without additional express language in the lease specifying the types of deductions from a royalty, a lessee could not deduct any post-production costs.¹⁷⁰ The Court further stated that if a lease is to allocate post-production costs between the lessor and the lessee, the lease

must expressly provide that the lessor shall bear some part of the costs incurred between the wellhead and the point of sale, identify with particularity the specific deduction the lessee intends to take from the lessor's royalty . . . , and indicate the method of calculating the amount to be deducted.¹⁷¹

C. Ohio

Unlike Pennsylvania and West Virginia, the law of oil and gas in Ohio is largely undeveloped except for a few cases discussing the nature of the lessee's interest in oil and gas leases and some discussion of implied covenants.

167. *Id.*

168. 633 S.E.2d 22 (W.Va. 2006).

169. *Id.* at 25.

170. *Id.* at 28.

171. *Id.* at 30. *Tawney* and *Wellman* have been criticized. Most marketable-product states do not foreclose the possibility of deductions for value-adding activities that occur after the point oil or gas becomes *first* marketable. *Tawney* and *Wellman* seemingly prohibit any deductions, even those incurred after the point at which the product becomes first marketable. 3 WILLIAMS & MEYERS, *supra* note 6, § 645.3, at 612.9 (critiquing *Tawney* as requiring lessee to bear post-production costs incurred even after the first point oil or gas becomes marketable); Kirk, *supra* note 70, at 799-800 (agreeing); Keeling & Gillespie, *supra* note 68, at 78-79 (presenting same critique for *Wellman*).

1. Lessee's Interest in Ohio

Ohio courts have split over the treatment of a lessee's interest in the oil and gas pursuant to a lease.

On one hand, the Ohio Supreme Court has held that "oil and gas in place are the same as any part of the realty, and capable of separate reservation or conveyance."¹⁷² This view is consistent with the Ohio Supreme Court's decision in *Harris v. Ohio Oil Co.*, in which the court stated that a lessee acquires a "vested, though limited, estate in the lands for the purposes named in the lease" as soon as the lessee takes possession, commences operations, drills wells, and produces oil.¹⁷³

On the other hand, other Ohio cases suggest that oil or gas belongs to no one until reduced to possession.¹⁷⁴ This view is consistent with case law in Ohio suggesting that the lessee's interest in an oil and gas lease is merely a license to explore with no interest in the oil and gas until reduced to possession. When that occurs, the lessee acquires an interest in the oil and gas as personalty, not realty.¹⁷⁵

2. Performance of Implied Duties in Ohio

In *Harris v. Ohio Oil Co.*, the Ohio Supreme Court adopted the prudent-operator standard in the context of the protection and development covenants. In that case, the plaintiff brought an action for forfeiture of the lease because the lessee allegedly failed to drill an appropriate number of wells on the property to protect the oil and gas from drainage and to develop the leasehold.¹⁷⁶ The lease was silent on these points. The court stated:

So, under an oil lease which is silent as to the number of wells to be drilled, there is an implied covenant that the lessee shall reasonably develop the lands, and reasonably protect the lines. The development and protection of lines which is thus implied when the lease is silent is such as is usually found in the same business of an ordinarily prudent man,—neither the highest nor lowest, but about medium or average. We therefore hold, both on principle and authority, that there is an implied covenant in this lease to reasonably develop the lands, by drilling and operating such number of wells as would be ordinarily required for the production of the oil contained in such lands, and afford ordinary protection to the lines.¹⁷⁷

172. *Pure Oil Co. v. Kindall*, 156 N.E. 119, 123 (Ohio 1927).

173. 48 N.E. 502, 506 (Ohio 1897).

174. *See, e.g., Back v. Ohio Fuel Gas Co.*, 113 N.E.2d 865, 869 (Ohio 1953).

175. *Id.*

176. *Harris*, 48 N.E. at 505.

177. *Id.*

Harris is also known for its recognition of the implied protection covenant and the implied development covenant.¹⁷⁸ In subsequent cases the Ohio courts, much like the Pennsylvania courts, have recognized that every lease contains an implied covenant of development that subsumes the implied duty to drill offset wells and protect the leasehold from drainage.¹⁷⁹ By contrast, Ohio has not definitively stated whether an implied marketing covenant exists and seemed to eschew a recognition of the covenant in *Ohio Oil Co. v. Lane*.¹⁸⁰

With respect to breach of implied covenants, Ohio is among the majority of jurisdictions recognizing that the usual remedy is damages, not termination of the lease.¹⁸¹ Forfeiture of the lease is recognized as an extreme measure and may be an appropriate remedy only if damages are wholly inadequate.¹⁸²

3. Royalty Calculations in Ohio

As to royalties, there are no reported cases indicating whether Ohio has adopted the marketable-product rule or the at-the-well rule. In one unreported case, an Ohio appellate court declined to adopt either the at-the-well rule or the marketable-product rule to determine whether lessees in that case appropriately deducted post-production costs from royalties.¹⁸³ Instead, the court merely applied general principles of contract law and concluded that because the leases were modified by subsequent action of the parties to preclude deductions for certain transportation costs, the deductions were improper.¹⁸⁴

D. New York

New York presents essentially a blank slate as to all significant oil and gas lease issues. There are very few reported cases explaining the nature of a lessee's interest in a lease, defining the implied covenants recognized by the courts, or defining royalty calculations.

178. Joe H. Munster, Jr., *Implied Covenants in Oil and Gas Leases in Ohio*, 26 OHIO ST. L.J. 404, 414-15 (1965).

179. *Ionno v. Glen-Gery Corp.*, 443 N.E.2d 504, 505-07 (Ohio 1983); *Beer v. Griffith*, 399 N.E.2d 1227, 1230 (Ohio 1980).

180. 52 N.E. 791, 793 (Ohio 1898).

181. *Moore v. Adams*, No. 2007AP090066, 2008 WL 4907590, at *3 (Ohio Ct. App. Nov. 17, 2008) (“Ohio courts have recognized that forfeiture is an appropriate remedy when legal damages resulting from a contractual breach are inadequate; upon a breach of implied covenants; upon a claim of abandonment; or when necessary to do justice.”).

182. *Ionno*, 443 N.E.2d at 508; *Beer*, 399 N.E.2d at 1229-30; *Harris*, 48 N.E. at 506.

183. *Schmidt v. Tex. Meridian Res., Ltd.*, No. 94CA12, 1994 WL 728059, at *7 (Ohio Ct. App. Dec. 30, 1994).

184. *Id.* at *3-7.

1. Lessee's Interest in New York

By statute, New York treats an oil lease and the rights incident to the leasehold as interests in personal property for all purposes except taxation.¹⁸⁵ This is consistent with the view of early case law treating an oil and gas lease as an incorporeal right in the oil and gas that does not vest until reduced to possession.¹⁸⁶

2. Performance of Implied Duties in New York

Only a handful of cases have mentioned implied duties in New York. As to the standard of performance, a court of appeals seems to have acknowledged that the prudent-operator rule is the appropriate standard in the context of pooling arrangements. In *Envirogas, Inc. v. Consolidated Gas Supply Corp.*, the dispute centered on the expiration of certain statutory pooling agreements.¹⁸⁷ The court held that the lessees were obligated to exercise their pooling authority “in good faith and as a prudent operator.”¹⁸⁸ Specifically, the court stated:

Provisions for both voluntary and involuntary pooling and creation of units for the production of oil and gas are now part of our statutory law. It is not disputed that the purposes of unitization and pooling agreements are to permit the greatest extraction of oil or gas with the least waste, to eliminate unnecessary drilling and to permit the most equitable distribution of royalties among the landowners. In jurisdictions where oil and gas wells are more numerous than in New York, it is the general rule that the lessee must exercise its pooling authority in good faith and as a prudent operator. *The rule should also be applied in New York since every contract contains an implied covenant of good faith performance and fair dealing.*¹⁸⁹

Thus, based on the rationale that every contract in New York contains a general duty of objective good faith, the court seems to have acknowledged that, at least with respect to pooling arrangements, the objective prudent-operator standard should govern a lessee's performance.

185. N.Y. Gen. Constr. Law § 39 (McKinney 2003) (“Oil wells and all fixtures connected therewith, situate[d] on lands leased for oil purposes and oil interests, and rights held under and by virtue of any lease or contract or other right or license to operate for or produce petroleum oil, shall be deemed personal property for all purposes except taxation.”); *see also* Parker Bailey, *Oil and Gas Interests in New York: Statutory Conflicts*, 25 CORNELL L.Q. 18, 18 (1940).

186. *Wagner v. Mallory*, 62 N.E. 584, 585 (N.Y. 1902); *Shepherd v. McCalmont Oil Co.*, 38 Hun. 37, 37 (N.Y. App. Div. 1885).

187. 469 N.Y.S.2d 499, 501 (N.Y. App. Div. 1983).

188. *Id.* at 501-502.

189. *Id.* (citing *Valkenburgh, Nooger, & Neville, Inc. v. Hayden Pub. Co.*, 281 N.E.2d 142 (N.Y. 1972); *Havel v. Kelsey-Hayes Co.*, 445 N.Y.S.2d 333 (N.Y. App. Div. 1981)) (citations omitted) (emphasis added).

As to specific implied duties, it appears New York has recognized the existence of the implied marketing covenant.¹⁹⁰ In *LaBarte v. Seneca Resources Corp.*, the court concluded that plaintiffs pled facts sufficient to state a claim for breach of a fiduciary duty owed by the lessee to market production at the best price possible before paying royalties.¹⁹¹ The plaintiffs claimed that the lessee artificially reduced royalty payments by engaging in alleged sham sales to the lessee's marketing affiliates. The court held as follows:

Moreover, in at least one oil-producing State, it has been recognized that the operator of an oil and gas lease owes a fiduciary duty to royalty owners to market oil or gas at the highest market price available. Although it is unclear at this stage of the litigation whether plaintiffs will ultimately succeed in establishing a fiduciary relationship with Seneca that is separate and distinct from their contractual relationship, we conclude that plaintiffs have stated cognizable causes of action against Seneca for breach of fiduciary duties and an accounting.¹⁹²

Notably, the court seemed to suggest that a lessee may have a fiduciary duty to obtain the best price possible when marketing gas, which is a different standard of performance than that required by the prudent-operator rule.

3. Royalty Calculations in New York

New York courts apparently have not decided many royalty disputes; consequently, there is no indication as to whether courts in New York will adopt either the at-the-well rule or the marketable-product rule for royalty calculations.

IV. CONCLUSION

The courts in the Marcellus Shale states will have no shortage of opportunities to revisit or decide for the first time the legal principles associated with oil and gas leasing. As noted in the introduction, the

190. The New York Appellate Division has concluded:

Because every contract contains an implied covenant of good faith and fair dealing in the course of contract performance, we further conclude that the court properly denied that part of defendants' motion seeking dismissal of the cause of action for breach of an implied covenant to market the gas against Resource America, but erred in denying that part of defendants' motion seeking dismissal of that cause of action against Resource Energy, with whom plaintiffs have no contractual relationship.

Cherry v. Res. America, Inc. 727 N.Y.S.2d 848, 850 (N.Y. App. Div. 2001) (citations omitted).

191. 728 N.Y.S.2d 618, 622 (N.Y. App. Div. 2001).

192. *Id.* (citing *Coosewoon v. Meridian Oil Co.*, 25 F.3d 920, 931 (10th Cir. 1994)) (citations omitted). *See also* *Roberts Ranch Co. v. Exxon Corp.*, 43 F. Supp. 2d 1252, 1264-66 (W.D. Okla. 1997) (creating fiduciary duty between lessors and lessees).

geological opportunities presented by the Marcellus Shale have resulted in such an increase in the execution of oil and gas leases that litigation over the issues pervading the lessor-lessee relationship is perhaps inevitable.

The basic principles governing the lessor-lessee relationship in the Marcellus states are not as well settled as perhaps those lessors and lessees would like. Nevertheless, the courts have a good foundation from which to work. They also have a substantial body of settled case law from other oil and gas jurisdictions to consult. Once the states iron out the inconsistencies and uncertainties in their jurisprudence, parties to leases will have a better understanding of the rules governing their legal relationships and responsibilities.