Implied Covenant of Development and Further Exploration - Dilemma or Solution.

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Implied covenants in oil and gas leases have been the subject of dispute for decades. The typical oil and gas lease does not specifically enumerate the duties or obligations of the lessee with respect to development and further exploratory activity after initial production has been achieved on the leasehold. The reason for this is that despite technological advances which include new testing and data gathering equipment, the only positive way to locate producing formations is to drill a well. With this fact, plus innumerable unforeseeable events which would delay or prevent a well from being completed, most lessees avoid clauses in leases which would require them to follow a certain pattern of development.

According to Professors Williams and Meyers, implied covenants in oil and gas leases had their beginning in 1889. In that year the Pennsylvania Supreme Court decided *Stoddard v. Emery*, in which an express development clause was the subject of litigation. In dictum the court stated that had there been no express clause governing development,

> [t]here would of course have arisen an implication that the property should be reasonably developed 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.

Another concept instrumental in the origin of implied covenants in oil and gas leases is the “principle of cooperation” found in contract law. Williams and Meyers have stated that this principle of cooperation “is based upon both the reasonable expectations of the parties when they enter into an agreement and ethical concepts of conduct.” Since express terms are frequently omitted in leases, there must be cooperation on the part of lessor and lessee in order to avoid needless litigation. The lessor is interested primarily in the royalty income which is dependent on the lessee developing the property with

1. 5 H. WILLIAMS & C. MEYERS, OIL AND GAS LAW § 802, at 3 (1972).
2. 18 A. 339 (Pa. 1889).
4. 5 H. WILLIAMS & C. MEYERS, OIL AND GAS LAW § 802.1, at 8-11 (1972).
5. *Id.* § 802.1, at 8. Williams and Meyers cite the famous case of Wood v. Lucy, Lady Duff-Gordon, 118 N.E. 214 (N.Y. 1917) which illustrates the principle of cooperation in contract law where an exclusive selling agent was held to be bound by an implied promise to use due diligence in promoting the products in question, on which the principal’s consideration was founded. *Id.* § 802.1, at 9.
due diligence so as to result in a profitable rate of return for both. The lessor must not wrongfully prevent diligent development while, on the other hand, the lessee is obligated to protect the leasehold from excess drainage and provide necessary marketing facilities. Cooperation is of vital importance when unforeseeable events occur which may require renegotiations, assignments, unitization, or farmout agreements. When there is reasonable cooperation the necessity of litigation is greatly reduced in the ordinary lessor-lessee relationship.

In order to distinguish between the implied covenants of development and further exploration, it is helpful to analyze the harm resulting from the breach of each covenant, and then to determine what remedies are adequate for such a breach. Basically, there are three types of harm resulting from the failure to fully develop a lease: (1) the failure to drill at all may leave untapped oil that could be produced; (2) the failure to drill a sufficient number of wells or a failure to drill in the right place may result in the permanent loss of otherwise recoverable oil; and (3) a failure to drill a sufficient number of wells may result in a slower rate of production which deprives the lessor of the use of the capital represented by the unproduced royalty oil. The cause of action to remedy such harm is the failure to produce oil or gas from a “known producing formation,” or the failure to produce minerals from a “known formation” at a proper rate.

Three remedies are recognized for the breach of the implied covenant to develop. The harshest is unconditional cancellation of the entire lease except for a specified area around existing producing wells. Second, the court may issue a conditional decree of cancellation whereby the lessee must drill a specified number of wells in the undeveloped portion of a known horizon, or suffer cancellation as to such acreage. Third, some courts have held that the only appropriate remedy is damages, unless this remedy is clearly proven inadequate. Where there has been a permanent loss of oil or gas from a failure to develop, damages are measured either by the value of the royalty on the oil or gas lost, or by the value of the royalty which would have been due from the well if the lessor had drilled promptly. If there is no per-

6. Id. § 802.1, at 10.
8. 5 H. Williams & C. Meyers, Oil and Gas Law § 831, at 211 (1972).
10. E.g., McMahan v. Boggess, 302 S.W.2d 592 (Ky. 1957).
permanent loss of oil or gas, it has been held the "royalty" rule would result in a double recovery since production has been merely delayed, and the minerals are still in place.\textsuperscript{13} Instead, a West Virginia court has defined the injury as the wrongful withholding from the lessor of the use of capital represented by the oil in place, and awarded the lessor the interest on the sum of royalties which would have been paid had there been no breach.\textsuperscript{14} The Texas Supreme Court recognizes the problem where oil and gas is still in place and recoverable; however, the court has refused to follow the "interest" rule, holding that an equity court could relieve a lessee from the duty to pay royalty on subsequently extracted minerals if the royalty has already been paid due to the breach of the covenant to develop.\textsuperscript{15}

Unlike the development covenant, the further exploration covenant focuses on potentially productive horizons which are not fully tested. While the major harm resulting from a breach of the development covenant is loss of capital represented by minerals otherwise recoverable, the major harm from the breach of the further exploration covenant is that the lessor has been deprived of the opportunity of having his mineral estate tested for new formations which may be productive.\textsuperscript{16} Adequate remedies for the breach of the covenant of further exploration include absolute cancellation of the unexplored mineral estate, either horizontally or vertically, or a conditional decree requiring the lessee to drill one or more exploratory wells in specified areas.\textsuperscript{17} Damages are inadequate because the covenant concerns unproven horizons; therefore, any estimate of the quantity of minerals in such horizons would be too speculative to support a money judgment.\textsuperscript{18}

One major problem which arises when a lessor claims a breach of the implied obligations relating to development or further exploration is the standard of conduct which should be imposed on the lessee. There are three views on this standard—the duties are absolute; the duties are governed by a test of good faith; or the duties are governed by the prudent operator standard.\textsuperscript{19} The view that the lessee's duties are absolute means that the operator is liable without fault and regardless of the reasonableness of his actions.\textsuperscript{20} The test of good faith is that the operator's performance is measured by his own subjective opinion, without regard to reasonableness.\textsuperscript{21}

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  \item [13.] Grass v. Big Creek Dev. Co., 84 S.E. 750, 754 (W. Va. 1915).
  \item [14.] Id. at 754.
  \item [15.] Texas Pac. Coal & Oil Co. v. Barker, 117 Tex. 418, 438-39, 6 S.W.2d 1031, 1039 (1928). For further discussion of remedies for the breach of the implied covenant to develop, see 5 H. Williams & C. Meyers, Oil and Gas Law § 834, at 237-46 (1972).
  \item [16.] 5 H. Williams & C. Meyers, Oil and Gas Law § 841, at 259 (1972).
  \item [17.] Id. § 841, at 260.
  \item [18.] Id. § 844.3, at 330.
  \item [19.] Id. § 806, at 29.
  \item [20.] Id. § 806.1, at 29-30.
  \item [21.] Id. § 806.2, at 30-31.
\end{itemize}
ther of these standards meet the requirements of the principle of cooperation and therefore do not complement the origin of implied covenants.

The majority of jurisdictions follows the third view, the prudent operator standard, in testing a lessee's performance. In the landmark case of Brewster v. Lanyon Zinc Co., Judge Van Devanter brought the implied covenant of development to life and adopted the "reasonable prudent operator" rule as the standard by which to measure the alleged breach:

The object of the operations being to obtain a benefit or profit for both lessor and lessee, it seems obvious, in the absence of some stipulation to that effect, that neither is made the arbiter of the extent to which or the diligence with which the operations shall proceed, and that both are bound by the standard of what is reasonable. . . . There can, therefore, be a breach of the covenant for the exercise of reasonable diligence, though the lessee be not guilty of fraud or bad faith.

But, while this is so, no breach can occur save where the absence of such diligence is both certain and substantial in view of the actual circumstances at the time, as distinguished from mere expectations on the part of mining enthusiasts. The large expenses incident to the work of exploration and development, and the fact that the lessee must bear the loss if the operations are not successful, require that he proceed with due regard to his own interests, as well as those of the lessor. No obligation rests on him 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. It is only to the end that the oil and gas shall be extracted with benefit or profit to both that reasonable diligence is required. . . . 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.

Based on this reasoning, the court held that the plaintiffs had stated a cause of action for which cancellation of the lease was an appropriate remedy.

The facts in Brewster presented an ideal situation for the application of an implied covenant to develop. The dilemma, especially in Texas, is whether the implied covenants of development and further exploration should be considered as two distinct and separate covenants which involve different standards of conduct, or whether the duty to further explore is merely a part of the general duty to reasonably develop the lease, requiring a lessee to act only as a "reasonable prudent operator."

22. Id. § 806.3, at 35.
23. 140 F. 801 (8th Cir. 1905).
24. Id. at 814 (emphasis added). In Brewster, the plaintiff-lessee sought to cancel 232.5 acres under lease for a failure to protect from drainage and to develop. The lease had a primary term of 5 years and contained a "drill or pay rental" clause. The lessee drilled one gas well 2 months before the primary term expired and 16 months later suit was filed.
25. Id. at 820.
Professor Meyers' Proposal

Professor Charles J. Meyers has been a leading proponent of the implied covenant of further exploration. He first proposed the covenant in a law review article in 1956 in which his thesis was that a new implied covenant should be recognized, the covenant to use due diligence to explore further which is separate and distinct from the covenant to develop. Professor Meyers hypothesized a typical situation where the implied covenant of further exploration would apply:

A rancher executed a lease on 640 acres of land in 1930. In 1932, oil production was obtained in the northeast quarter section. Four wells were drilled, the first three producers and the fourth, in the southwest quarter of the quarter section, a dry hole. No other wells were drilled. In 1956 production totals sixty barrels daily from all three wells. But in 1955 another and deeper producing formation was discovered by a well located two miles to the southwest of the southern boundary of the lease. The rancher demands further exploratory drilling on his land. Should he get it?

The answer to this would be in the affirmative based on a breach of the covenant to further explore. Meyers' reasoning was that the reasonable prudent operator standard differs in "further exploration" cases as distinguished from "development" cases, in that what a reasonable man may do about drilling additional wells in proven formations has little bearing on what the same reasonable man would do about drilling exploratory wells to discover new mineral deposits in deeper sands. In other words, a reasonable prudent operator will not drill additional development wells unless there is a reasonable expectation of profit after deducting all drilling and operating costs. An operator usually can determine whether a development well will produce in paying quantities since geological data may be collected from a known, proven horizon. On the other hand, an exploratory well involves speculation based more heavily on the general geophysical features of the area. Meyers asserts that because the harm resulting from a failure to explore is different from that resulting from the failure to develop, the lessor need not show that an exploratory well will yield a reasonable profit. Instead, it is proposed that the lessor must show only that under all the circumstances the failure to drill one or more exploratory wells in unproven formations is unreasonable. Circumstances which would be relevant in such an inquiry are (1) the period

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28. Id. at 557.
29. Id. at 557. See also 5 H. Williams & C. Meyers, Oil and Gas Law § 841, at 259 (1972).
30. 5 H. Williams & C. Meyers, Oil and Gas Law § 841, at 259 (1972).
of time that has elapsed since the last well was drilled, (2) the size of the lease, (3) drilling operations on adjoining tracts, (4) the existence of untested horizons, (5) the lessee's intentions toward further exploration and his operations on other leases, (6) the economic feasibility of further exploratory drilling, and (7) whether a portion of the leasehold is executed from a production unit, so that such acreage is being held without any drilling.

Although this list of circumstances is not exhaustive, it illustrates a few factors courts would consider in determining whether a lessee's action has been so unreasonable as to warrant cancellation or conditional cancellation of the unexplored acreage.

Interpretation by the United States Supreme Court

In 1934, the Supreme Court decided the leading case of Sauder v. Mid-Continent Petroleum Corp. The plaintiff executed a lease to the defendant in 1916 for a primary term of 10 years on the east one-half of a section of land, and on the southeast quarter of the southwest quarter of the same section. The total area covered by the lease was 360 acres. In November of 1921, and in January 1922, the defendant drilled two offset wells; no other wells had been drilled when suit was filed on June 27, 1930, 17 years after the second well had been completed. Plaintiff asserted that production on adjacent tracts was causing drainage of oil and gas from the leased land, that the defendant was bound to explore and develop the land and had neglected to do so, and that unless the lease was cancelled, the defendant would continue to hold it for speculative purposes only. Several factors were relevant to the inquiry into the alleged breach. First, there was evidence of upper and lower sands in the area, and there were wells in the lower sand to the west and south of plaintiff's land. Second, the defendant produced expert testimony to the effect that a reasonable prudent operator would not drill additional wells on the Sauder tract because of the unlikelihood of obtaining oil or gas from the lower sands. Third, it was the defendant's express intention that no further exploration or development would commence until development in the immediate vicinity should convince them that it would "pay" to take such action.

After considering other applicable decisions, including Brewster, and recognizing the generally accepted prudent operator standard, the Court held the

31. Id. § 841, at 259-60.
33. 292 U.S. 272 (1934).
34. Id. at 275-76.
plaintiffs were entitled to cancellation of the lease to the untested half-section of land unless an exploratory well was drilled. The Court distinguished past cases which followed Brewster by reasoning that "[i]n none of them was there neglect to explore or develop for any such period as is here shown, or an expressed intention not to do so, in a comparable situation." It was noted that such an express intention not to further explore or develop the lease did not comport with the obligation to prosecute development with due regard to the interests of the lessor.

The production of oil on a small portion of the leased tract cannot justify the lessee's holding the balance indefinitely and depriving the lessor not only of the expected royalty from production pursuant to the lease, but of the privilege of making some other arrangement for availing himself of the mineral content of the land.

Professor Meyers has interpreted his language as supportive of the implied covenant of further exploration, especially in light of the Court's order of cancellation, made despite testimony that a prudent operator probably would decline to drill additional wells, whether exploratory or developmental in nature. It is also arguable, however, that the Court did not actually consider the duty to explore as a separate and distinct covenant from that of development. The issue stated was "whether the respondent failed to comply with an implied covenant to develop the tract with reasonable diligence." Perhaps the Court was merely considering "all" relevant circumstances from which it concluded that the lessee had failed to reasonably develop the lease, thereby extending the holding of Brewster to include not only "development" wells, but also "exploratory" wells which a diligent operator should be obligated to drill in order to give due regard to the lessor's interests.

THE DILEMMA IN TEXAS

A discussion of Texas law concerning the implied covenants of development and further exploration should begin with Willingham v. Bryson, decided in 1956 by the Fort Worth Court of Civil Appeals. The suit was to

35. Id. at 281.
36. Id. at 281 (emphasis added).
37. Id. at 281.
38. Id. at 281.
cancel a lease for the failure to “further explore” known horizons, and the court expressly adopted Professor Meyers’ proposal that an implied covenant to “explore” as distinguished from the covenant to “develop” should be recognized.\textsuperscript{42} It was held that a covenant to further explore exists in oil and gas leases, and the standard for determining breach is the prudent operator rule.\textsuperscript{43} To prove a breach, however, the lessor was not required to show that additional drilling would probably result in a profit to the lessee.\textsuperscript{44} It was shown that no wells had been drilled on the lease since the discovery of one producing gas well. This, coupled with testimony from another operator that he would have drilled an exploratory well to the lower zone in question, satisfied the requirement.\textsuperscript{45}

This support for the covenant did not seem to last very long since Willingham was criticized in the landmark case of Clifton v. Koontz.\textsuperscript{46} Clifton involved a suit to cancel a lease covering 350 acres, excepting 40 acres around an existing well, on the theory that the owners of the working interest had breached an implied covenant to reasonably develop the property and to “reasonably explore the same for the production of minerals therefrom.”\textsuperscript{47} Clifton sought a conditional decree requiring the lessor to either commence and continue the drilling of wells to a depth sufficient to “test all known horizons” in the general area, or forfeit all rights under the lease (except the 40 acres around an existing well).\textsuperscript{48} The lease was executed in 1940 containing a 10-year primary term. In 1949 a well was drilled which produced gas but very little oil. After acidizing this well proved unsuccessful, it was “sand fractured” which significantly increased production. In addition, an operator who had drilled a producing oil and gas well on adjoining property, 1200 feet north of the north line of the Clifton tract, was willing to drill additional wells on the Clifton lease and contracted to do so if a release or cancellation could be obtained. Evidence indicated two lower formations other than the Morris field from which the one gas well was producing, but the nearest well producing from such formations was 2½ miles east of the Clifton tract and there was no evidence of lower sands on the Clifton tract capable of production in paying quantities. Finally, the one gas well on the 350-acre tract was producing the maximum allowable under the Railroad Commission’s regulations; therefore, even if an additional well had been drilled to the Morris sand, the total allowable for the two wells would have been no greater than the allowable for a single well.

\textsuperscript{42} Willingham v. Bryson, 294 S.W.2d 421, 425 (Tex. Civ. App.—Fort Worth 1956, no writ).
\textsuperscript{43} Id. at 425.
\textsuperscript{44} Id. at 425.
\textsuperscript{45} Id. at 425.
\textsuperscript{46} 160 Tex. 82, 97, 325 S.W.2d 684, 696 (1959).
\textsuperscript{47} Id. at 84, 325 S.W.2d at 687.
\textsuperscript{48} Id. at 84, 325 S.W.2d at 687.
Based on these circumstances, the court held the lessee had not breached the implied covenant to reasonably "develop" the lease:

While it is true that each separate stratum or horizon would be entitled to separate development, yet it is equally true that the burden rests upon the lessor to prove that the producing stratum required additional wells, or that strata different from that from which production is being obtained, in reasonable probability exist, and that by the drilling of additional wells there would be a reasonable expectation of profit to the lessee.49

The court also refused to recognize the covenant to further explore and therefore held there was no breach.50 Clifton had relied exclusively on the Willingham decision to support her contention that there was a distinction between development and exploration. The court denied that Willingham was authoritative, explaining that an examination of Texas cases indicated that the covenant of development includes all additional drilling requirements once production is obtained.51 Instead, it was held that there is no implied covenant to explore distinguishable from the covenant to conduct additional development after production in paying quantities has been obtained.52 Thus the court expressly rejected Meyers' theory on the basis that an expectation of profit is an essential element of the prudent operator rule.53

Examining this holding alone, one would encounter no difficulty in concluding that the court unqualifiedly rejected the concept of an obligation to further explore a lease under any circumstances. However, there is very important dictum in the opinion which indicates the court might have granted relief to Clifton if the facts had been different:

However, it should be noted that we do not have a factual situation where the lease covers several thousand acres and an effort is being made to hold such vast acreage by showing production from a comparatively small area. Neither are we confronted with a situation where an unreasonably long length of time has elapsed since the last development of the leased premises. Therefore, we do not pass upon these questions.54

This language presents the immediate question of whether the Texas Supreme Court might uphold an alleged breach of the obligation to further explore under the guise or label of the covenant to reasonably develop the leasehold. The second question naturally follows: under what standard of con-

49. Id. at 96, 325 S.W.2d at 695. This holding of the court was based mainly on the "reasonable prudent operator rule" announced by Brewster which was cited by the court.
50. Id. at 97-98, 325 S.W.2d at 696-97.
51. Id. at 97, 325 S.W.2d at 696. Note that the court's statement here did not eliminate exploration as being encompassed by the term "development."
52. Id. at 97, 325 S.W.2d at 696.
53. Id. at 98, 325 S.W.2d at 697.
54. Id. at 97, 325 S.W.2d at 696. For a discussion of the Clifton case see 5 H. Williams & C. Meyers, Oil and Gas Law § 843.6, at 350-58 (1972).
would a lessee be bound in such circumstances? Finally, where there has been such an unreasonable delay in development, would the lessor still be faced with the burden of proving an expectation of profit before there could be a breach? There has been no Texas Supreme Court decision which answers these questions, but an analysis of subsequent Texas cases, plus an examination of leading cases from other jurisdictions which have involved similar issues provide a possible solution to this dilemma.

Shortly after Clifton, the Court of Appeals for the Fifth Circuit decided Sinclair Oil & Gas Co. v. Masterson, in which a conditional decree of cancelation for the failure to explore without a showing of the probability of profit was affirmed. Masterson involved a suit to cancel the undeveloped and unexplored portions of 31 leases covering "ninety thousand" acres, all of which were executed before 1940 and contained short primary terms running from 1 to 4 years. The oil and gas rights had been partitioned; the gas rights were owned by Colorado Gas Company, and the oil rights were owned by Sinclair. Colorado had fully explored and developed the leases for gas by drilling 114 wells, but prior to the institution of suit on June 16, 1955 Sinclair had not drilled a single oil well on the Masterson land. It was not the practice for the gas lessee to drill to a depth sufficient to test the oil horizon which existed around sea level; however, the only two gas wells drilled to this depth did encounter oil shows. After suit was filed, Sinclair drilled 8 wells, 6 of which were producers and 7 of which were in a limited area around the discovery well. The lower court rejected Sinclair's contention that the lease had been fully developed by Colorado, holding that Sinclair's obligations to explore and develop were independent of those resting on Colorado. Based on the probability of production from the undeveloped portions of the lease, the fact that Sinclair had inadequately explored the land before and after suit was filed, the enormous acreage involved, and the long delay in drilling over 25 years, the plaintiffs were granted a conditional decree. This decree required Sinclair to drill 30 exploratory wells within a 5-year period, or one well within each 3,000 acres on the lease.

Since federal courts are bound by the substantive laws of a state, Sinclair was permitted to file a supplemental brief contending that Clifton, which was decided after the district court's decision, required a reversal because the "plaintiffs failed to sustain the burden of proving that further exploration or development would result in a profit to the lessee." The court referred to language in Clifton in which the Texas Supreme Court had recognized that

56. Id. at 315.
57. Id. at 315.
58. Id.
60. Sinclair Oil & Gas Co. v. Masterson, 271 F.2d 310, 315 (5th Cir. 1959).
the factual situation did not involve a vast amount of acreage or that there had been an unreasonable delay in further development,\(^61\) stating that "[t]hese words of caution could not have furnished a surer guide for interpretation of its language if they had been used with the case now before us in mind."\(^62\) In rejecting Sinclair's request for a reversal in light of *Clifton* the court held that exploration on one portion of the lease would not nullify the obligation to explore other parts; *Clifton* did not stand for the principle that "under all circumstances exploration, accompanied or unaccompanied by production of a portion of a lease, satisfies completely the implied covenants of exploration-development."\(^63\) *Clifton* was distinguished on the grounds that the Texas Supreme Court had merely affirmed the trial court's findings that the undeveloped acreage in question probably would not produce oil, and that no profit would accompany other gas wells under the regulations of the Texas Railroad Commission.\(^64\) Further, the facts in *Masterson* were held to be clearly within the ambit of the *Sauder* case decided by the United States Supreme Court.\(^65\)

The next Texas decision dealing with the dilemma was *Felmont Oil Corp. v. Pan American Petroleum Corp.*\(^66\) which at first glance appeared to have rejected *Masterson*. Suit was brought on the theory that the lessees had breached the covenant of further exploration in two leases. The lessees had drilled 80 wells on a 5,685 acre tract, and 235 wells on a 13,352 acre tract. Extensive geological surveys had been conducted on both tracts, and the lessees had contributed funds for testing the leases in question and on adjoining land. A jury found that the lessees, or their predecessor in title, had drilled or caused to be drilled as many exploratory wells below the depth of 3,200 feet on those portions of the lease owned by them as a reasonable, prudent operator would have drilled under the same or similar circumstances.

It has been argued that the court's opinion supports a duty to explore in some passages, yet, in other language, it says that a probable profit must be proven.\(^67\) The language which seems to require proof of a profit is quoted from *Clifton*, stating in substance that there is no distinction between exploration and development after production in paying quantities has been ob-

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63. Id. at 320-21.
64. Id. at 321.
65. Id. at 321. The court's final decision adopted the trial court's findings and decree which were found wholly justified, and even stated the program of exploration and development the trial court decreed was characterized by unusual generosity. Id. at 325. For a discussion of the *Masterson* case see 5 H. Williams & C. Meyers, Oil and Gas Law § 845.6, at 358-61 (1972).
66. 334 S.W.2d 449 (Tex. Civ. App.—El Paso 1960, writ ref'd n.r.e.).
The court summarized the requirements of the covenant by holding that a lessor must prove that the lessee has failed to satisfy the standards of a prudent operator, that producing horizons existed which should have been further explored or drilled, and that if such additional wells had been drilled, there would have been a reasonable expectation of profit to both the lessor and lessee.

This holding might reasonably be interpreted as recognizing two covenants, exploration and development, with no distinguishing features between the two, both applying the standard of the prudent operator rule which entails proof of an expectation of profit. The court also expressly declined to follow Masterson. Williams and Meyers, however, reasonably conclude that the court's action in declining to follow Masterson did not establish that there was no duty to drill exploratory wells under any circumstances, but that the court refused only to treat the two leases in question as one lease since this would have placed an unforeseen burden on the lessee.

Finally, Felmont has been criticized as not shedding any light on the Texas law concerning implied covenants, and in fact, resulted only in further confusion. Such criticism came about because the writ was returned "no reversible error," meaning the Texas Supreme Court did not disagree with the result of the case, but did not necessarily agree with the reasoning used to reach the result.

68. Felmont Oil Corp. v. Pan American Petroleum Corp., 334 S.W.2d 449, 455 (Tex. Civ. App.—El Paso 1960, writ ref'd n.r.e.).
69. Id. at 455.
70. Id. at 458.
71. Meyers and Williams pointed this out indicating that the court in Felmont Oil was not rejecting the entire reasoning of Masterson. See Meyers & Williams, The Implied Duty to Explore Further: Recent Texas Developments, 41 TEXAS L. REV. 789, 801 (1963). The statement referred to in the opinion reads:

Appellants have called our attention to the recent case of Sinclair Oil & Gas Co. v. Masterson, 271 F.2d 310, by the Fifth Circuit which case purports to distinguish and follow the Kooontz case. We do not think this case has distinguished the facts of the Kooontz case, nor do we believe it follows it. In the Masterson case, the court had before it 31 separate oil and gas leases, each entitled to enforcement with respect to the implied covenants to explore, develop and produce. The court there declined to enforce the implied covenants imposed by each of the leases, presumably on the ground that to do so would impose too heavy a burden on the defendant. Instead, the court treated the 31 separate leases as though they were a single lease covering 90,000 acres. In the absence of an agreement, or the consent of the parties, we know of no rule by which a Texas court would be authorized to take such action. We decline to follow the Masterson case.

Felmont Oil Corp. v. Pan American Petroleum Corp., 334 S.W.2d 449, 458 (Tex. Civ. App.—El Paso 1960, writ ref'd n.r.e.). According to Meyers and Williams, this statement by the court indicated its misconception of the Masterson case, for the treatment of the 31 leases was to decrease the burden on the lessee rather than increase it as the court of appeals seems to think. Williams & Meyers, The Implied Duty to Explore Further: Recent Texas Developments, 41 TEXAS L. REV. 789, 801 (1963).


For a contrary opinion as to the significance of the writ returned and Felmont Oil's degree of authority see Smith, Duty to Explore Further: A Disagreement, 42 TEXAS
In 1964, the supreme court again returned a writ “no reversible error” in *Edgar v. Southwestern Oil & Refining Co.* The suit involved the alleged breach of a covenant to “reasonably develop” a 2,258 acre lease executed in 1950. Evidence indicated one well, dually completed at the 9,900 and 10,002 foot levels, had been drilled on the 2,258 acre tract. This well profitably produced gas and associated liquid hydrocarbons at the rate of 500 M.C.F. per day. Other testimony indicated that there were producing wells at short distances from the lease in question at depths of 11,396 and 11,275 feet, and that another well was being drilled on other land within 2,400 feet of the northern boundary to the 11,045 foot level all evidencing a productive pool, oval in shape, covering all of the leased land except the northeast corner. There were affidavits and counter-affidavits by experts as to whether a prudent operator would have “further developed” these “known” formations and whether there was a reasonable expectation of profit.

Based on *Clifton* the court held that the lessor was entitled to a trial on the merits. The applicable rules were derived from *Clifton* and *Felmont*: each separate horizon was entitled to separate development, and the burden rests on the lessor to prove that producing strata, different from those from which production is being obtained, in reasonable probability exist, and that by the drilling of additional wells there would be a reasonable expectation of profit to the lessee. This rather ambiguous language from *Clifton* illustrates that the supreme court may require further exploration in some circumstances, but only under strict application of the prudent operator standard. It might be noted that *Edgar* is actually more a “development” case.
than an "exploration" case. The lessor sought development in proven horizons deeper than the existing dual well. In a true "further exploration" case, the lessor seeks to require the lessee to drill exploratory wells to an untested horizon because of sufficient circumstances indicating it would be unreasonable not to explore such zones. \(^76\)

Whether the Texas Supreme Court would uphold a true "further exploration" claim is not yet clear. It is arguable that such a claim would receive support if the court were faced with a factual situation similar to the Masterson case.

**Further Exploration Covenant in Other Jurisdictions**

Jurisdictions other than Texas have also been reluctant to expressly recognize a separate and distinct duty to "further explore" as distinguished from "additional development" after initial production has been achieved. There have been cases, however, which appear to have impliedly recognized the duty to further explore in various circumstances under the general covenant to "fully develop" the leasehold. \(^77\) Other cases have simply intermixed the terms exploration and development without actually recognizing a different standard of breach for either. \(^78\) In fact, the reasonable prudent operator standard is almost uniformly utilized in determining whether a lessee should either further explore or develop, \(^79\) but the circumstances in which courts are

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\(^76\). It may be noted that there are two recent cases where Texas courts have recognized a lessee's potential liability for "damages" for the failure to develop each separate, known horizon in the leasehold.

In Texas Oil & Gas Corp. v. Vela, 405 S.W.2d 68 (Tex. Civ. App.—San Antonio 1966), rev’d on other grounds, 429 S.W.2d 866 (Tex. 1968) the lessors brought suit to recover alleged deficiencies in royalty payments, as well as additional relief on the theory that the leased premises were being drained and had not been properly developed. After recognizing the existence of the covenants to protect against drainage and to reasonably develop, the court, citing Clifton, held the evidence indicated that "damages" were the only relief available under the circumstances. *Id.* at 78. The court relied on W.T. Waggoner Estate v. Sigler Oil Co., 118 Tex. 509, 19 S.W.2d 27 (1929):

The usual remedy for breach of the lessee's implied covenant for reasonable development of oil and gas is an action for damages, though, under extraordinary circumstances—where there can be no other adequate relief—a court of equity will entertain an action to cancel the lease in whole or in part.

Texas Oil & Gas Corp. v. Vela, 405 S.W.2d 68, 73 (Tex. Civ. App.—San Antonio 1966), rev'd on other grounds, 429 S.W.2d 866 (Tex. 1968). Applying this rule, it was held that damages were ascertainable for the lessee's failure to develop the lower formation in dispute and that the trial court had erred in granting a conditional decree. *Id.* at 79; accord, Shell Oil Co. v. Stanbury, 401 S.W.2d 623, 632 (Tex. Civ. App.—Beaumont 1966), *writ ref'd n.r.e. per curiam*, 410 S.W.2d 187 (Tex. 1967) (court recognized lessee's duty to develop and protect premises from drainage as to each reservoir or stratum or horizon or sand lens containing sufficient oil and gas to invoke such obligations, express or implied).

\(^77\). *E.g.*, Doss Oil Royalty Co. v. Texas Co., 137 P.2d 934, 938 (Okla. 1943).

\(^78\). *E.g.*, Smith v. Moody, 94 S.W.2d 357, 358 (Ark. 1936).

willing to enforce such duties differ substantially among the states. For instance, some courts appear to emphasize the length of time since the last well was drilled;80 some emphasize whether additional drilling would result in a profit to the lessee;81 and still others inquire whether other operators are willing to drill on the lease in question;82 however, in most cases, a number of considerations are combined to indicate a lack of due diligence on the part of the lessee. Since the action to cancel a lease for the breach of a covenant is a proceeding in equity, the court should determine whether all the circumstances indicate the lessee has not conducted himself as a reasonable prudent operator.

Size of the Lease in Relation to Existing Wells

One set of factors which are pertinent to the inquiry is the size of the leasehold in dispute, and the number and location of producing wells in relation to the tract. Of course Masterson, which involved over ninety thousand acres, was an extreme example in which the court did enforce a duty to further explore.83 In another case there had been two producing gas wells drilled on a 1,263-acre lease, and no steps had been taken to develop the lease to the north and east of the main fault line where a known horizon existed.84 In still another, a lease was cancelled for the failure to explore a 120-acre tract on which one well had been drilled in the northwest corner which produced only 10 to 20 barrels of oil per day.85 In Sauder v. Mid-Continent Petroleum Corp.,86 the Supreme Court cancelled a lease on which two offset wells had been drilled on a 40-acre portion of the tract, but there had been no drilling on the remaining 320 acres.87 On the other hand, cancellation has been denied where five wells were drilled on a 20-acre tract, and where of at least 15 wells were drilled to deeper sands on adjacent tracts, only one had been a dry hole.88 These few cases illustrate a common judicial attitude that the proportion of the number of wells to the amount of acreage in the lease is significant in determining the diligence of the operator.

Current Operations

Another factor of considerable importance in further exploration and development cases has been the operator's drilling operations in the lease or

82. E.g., Humble Oil & Ref. Co. v. Romero, 194 F.2d 383, 386 (5th Cir. 1952).
83. Sinclair Oil & Gas Co. v. Masterson, 271 F.2d 310, 315 (5th Cir. 1959).
86. 292 U.S. 272 (1934).
87. Id. at 276-77.
in the immediate vicinity, and the exploratory activity, short of actual drill-
ing, which may indicate reasonable and diligent conduct. An excellent ex-
ample of such a case was Sun Oil Co. v. Frantz,89 decided by the Court of
Appeals for the Tenth Circuit. The lease in question covered three noncon-
tiguous tracts, and the lessee had obtained production on tract one during
the primary term and on tract two during the pendency of the case on appeal.
The court emphasized that the lessor had not been indifferent to the possibil-
ities of development, that it had actively promoted development and had
contributed money and acreage to the full exploration of the leased land's
mineral potential, that there was no reluctance to proceed with exploratory
work, and that the lessee had drilled or participated in the drilling of 20 wells
in the area and was drilling an offset well by tract three at the time of trial.90
Based on these circumstances, the court refused to cancel the undeveloped
portions of the lease.91 Similar cases have indicated a general acceptance
of the principle that geophysical testing and exploratory activity or drilling
in the immediate vicinity of a lease constitutes prudent operation as long as
there has not been an unreasonable delay in development or exploration of
the property.92

The Willing Operator

Closely related to the factor of current exploration activities in the area
incorporated in the leasehold is the lessee's refusal to commence additional
drilling in light of testimony from other operators who would be willing to
drill on a lease if cancellation were granted. This factor was emphasized
in the Louisiana case of Carter v. Arkansas Louisiana Gas Co.93 which
seems to support an obligation to further explore. There had been two pro-
ducing gas wells drilled on a 1,263-acre lease, and favorable expert testimony
indicated probable production in a known horizon which existed to the north
and east of an underlying fault. Furthermore, an experienced operator testi-

89. 291 F.2d 52 (10th Cir. 1961).
90. Id. at 55.
91. Id. at 55; accord, Chenoweth v. Pan American Petroleum Corp., 314 F.2d 63
(10th Cir. 1963). See also Shell Oil Co. v. Lee, 258 P.2d 666 (Okla. 1953) (lessee
joined others in a geological survey, drilled 3 different deep test wells at a cost of over
$500,000 on adjacent leaseholds, and one lessee had committed itself to help drill a deep
test well ½ mile from the lease in question and desired to await the outcome of this
well before drilling on the lessor's property).
92. See Pohlemann v. Stephens Petroleum Co., 197 F.2d 134 (10th Cir. 1952) (les-
see joined other operators in a deep test well); Trust Co. v. Samedan Oil Corp., 192
F.2d 282 (10th Cir. 1951) (lessee made study of possibilities of deeper producing
formations in general area, contributed to cost of deep test well, and planned to drill
depth test well in immediate vicinity of lease in question); Carter Oil Co. v. Mitchell,
100 F.2d 943 (10th Cir. 1939) (several test wells on adjacent property); Ferguson v.
Gulf Oil Corp., 137 P.2d 940 (Okla. 1943) (lessee joined others in a deep test well
½ mile from the lease in question, and second well was commenced on notice).
93. 36 So. 2d 26 (La. 1948).
fied that if he owned a lease covering the acreage in question, he would either drill a well himself or join others to do so. It was the defendant-lessee’s contention that under the implied obligations of the lease he was not required to drill exploratory wells on the undeveloped portion of the tract lying outside the proven field, and that the drilling of any additional wells on the property would constitute exploration and not development.94 The lessee had no present or future plans to drill such exploratory wells. The court cited Brewster and recognized that the reasonable prudent operator rule was the applicable standard, giving due regard for the interest of both contracting parties.95 Giving special emphasis to the fact that another operator was willing to drill additional wells of an exploratory nature, the court held that the lessee had violated an implied condition of the lease to develop the property prudently and reasonably.96 The court explained,

"[t]he principle as we understand it, is that development of every part of the lease is an implied condition. Therefore, whether the undeveloped portion be a single tract remote from the rest, or a considerable portion of a very large tract . . . or the east one hundred acres of a tract of 160, it is an implied condition that the lessee will test every part. . . .97"

Humble Oil & Refining Co. v. Romero98 was a similar case in which the Fifth Circuit emphasized the importance of testimony from an experienced operator that he would be ready and willing to lease the plaintiff’s property if the lease were cancelled.99 The district court had granted cancellation despite testimony that further drilling would be unprofitable, stating that

"[i]n spite of the insistence by defendant’s and intervenor’s geologists that no reasonably prudent operator would drill additional wells on the Romero property, the bald fact remains that plaintiff has an experienced operator who is willing, ready, and able to drill. . . . If the possibility of producing oil and gas is so remote of what value is the lease?100"

The Fifth Circuit agreed with this reasoning, but required that adequate assurances be made by the willing operator that he would lease the Romero property before a conditional decree would become effective.101 This decision has been interpreted as enforcing an implied covenant to further explore in the broadest sense.102 Romero held that the covenant to further explore

94. Id. at 27.
95. Id. at 28.
96. Id. at 29.
97. Id. at 29, quoting Fox Petroleum Co. v. Booker, 253 P. 33, 38 (Okla. 1926) (emphasis added).
98. 194 F.2d 383 (5th Cir. 1952).
99. Id. at 386.
is breached, not if an ordinary prudent operator would further explore, but if any operator is willing and able to do so. The court not only gave conclusive effect to the testimony of the "willing operator," but also disregarded such factors as whether there had been an unreasonable delay in development, or whether additional drilling would be economically feasible. This standard is completely contrary to the usual prudent operator rule which is based on a hypothetical operator, not merely any willing operator who testifies for the lessor. If the Romero standard were applied, it could lead to collusive or fraudulent practices. Of course testimony from a willing operator is a relevant factor, but it should not be conclusive, and all surrounding circumstances should be considered.

The Profit Test and Surrounding Circumstances

Perhaps the most important factor considered in further exploration and development cases has been the economic feasibility of drilling additional wells on the lease. Obviously, a lessee will always avoid drilling additional wells when the geological data and other circumstances indicate such drilling would result in a loss. The question usually is, under what circumstances, if any, would a reasonable prudent operator drill despite the possibility of a loss in profits?

In a Kansas case, Fischer v. Magnolia Petroleum Co., the main issue presented was whether or not an expectation of profit was an essential element of the reasonable prudent operator standard. It was held that a profit was essential, reasoning that the large expense incident to exploration and development justifies the lessee in proceeding with reasonable caution and with a proper regard for his own interest as well as that of the lessor. Such proof of a profit would be necessary even when drilling would result in some profit to the lessor.

Harris v. Morris Plan Co. is a Kansas decision which seems to have recognized that proof of a profit may not be absolutely necessary when other circumstances favor additional drilling. The lease in question contained 200 acres on which there was one well which was capable of extracting oil from a 600 square foot area. The lessee evidenced an intention not to further develop the lease until the price of oil reached a certain level and contended there could be no cancellation unless the lessor proved additional wells would result in a mutual advantage. The court held that the element of profit

103. Id. at 561-62.
104. Id. at 562.
105. 133 P.2d 95 (Kan. 1943).
106. Id. at 99.
107. Id. at 99-100.
108. Id. at 99-100; accord, Clifton v. Koontz, 160 Tex. 82, 98, 325 S.W.2d 684, 697 (1959).
109. 61 P.2d 901 (Kan. 1936).
would not be considered separately from the main context of the prudent operator rule.\textsuperscript{110} It was explained that the rule could not be read to mean that unless the operation is profitable to the lessee, he need not develop, but that actions of this sort are equitable in nature, and equitable principles must be applied.\textsuperscript{111} Since the lessee was undoubtedly holding the lease for speculative purposes only, the lease was cancelled as to the undeveloped portion.\textsuperscript{112}

The recent case of \textit{Sanders v. Birmingham}\textsuperscript{118} leaves little room for doubt as to what circumstances in conjunction with the profit test will be considered in the state of Kansas. Generally, all of the facts and circumstances which would affect the reasonableness of an ordinary prudent operator’s position in connection with development of the lease will be considered.\textsuperscript{114} More specifically, the pertinent factors for consideration are (1) the quantity of the oil or gas capable of being produced as indicated by prior exploration and development, (2) the local market, (3) the extent of operations on adjacent tracts, (4) the character of the reservoir, and (5) the usages of the business.\textsuperscript{115} Economic factors to be considered are the total cost of operation, the cost of transportation and storage, and the general market as influenced by supply and demand or by governmental regulation.\textsuperscript{118}

In the Arkansas case of \textit{Smith v. Moody},\textsuperscript{117} the court placed little emphasis on the economic feasibility of additional wells when 11 years had elapsed since the last well had been drilled.\textsuperscript{118} Concerning the lessee’s contention that additional wells would be unprofitable, the court said, “If true, the lessors have not been damaged by the cancellation of so much of the contract of lease as cannot be profitably performed.”\textsuperscript{119} In a more recent case, however, the Arkansas Supreme Court has placed greater emphasis on economic factors.\textsuperscript{120} The purpose of the suit was to cancel 120 acres of a 200-acre lease consisting of five contiguous 40-acre tracts. Seven wells had been drilled to the deepest “known” horizon at a cost to the lessees of approximately $369,648; and it was conceded that the tract had been fully developed to the known horizons. The lessors alleged the “deeper” horizons (below the 3,500 foot level) constituted separate estates which the lessee had failed to explore and that he was holding such acreage for speculative purposes.

\begin{itemize}
\item \textsuperscript{110} \textit{Id.} at 905.
\item \textsuperscript{111} \textit{Id.} at 905.
\item \textsuperscript{113} 522 P.2d 959 (Kan. 1974).
\item \textsuperscript{114} \textit{Id.} at 966.
\item \textsuperscript{115} \textit{Id.} at 966.
\item \textsuperscript{116} \textit{Id.} at 966.
\item \textsuperscript{117} 94 S.W.2d 357 (Ark. 1936).
\item \textsuperscript{118} \textit{Id.} at 358.
\item \textsuperscript{119} \textit{Id.} at 358; accord, \textit{Skelly Oil Co. v. Scoggins}, 329 S.W.2d 424, 426 (Ark. 1959).
\item \textsuperscript{120} \textit{Reynolds v. Smith}, 331 S.W.2d 112, 116 (Ark. 1960).
\end{itemize}
only. There was uncontradicted testimony that the drilling of such a deep well would be a wildcat operation since the nearest deeper production was 9 miles to the southeast, and 16 miles to the southwest. It was also shown that such an exploratory well would cost between $40,000 and $70,000 and that to warrant drilling, a minimum of 500 acres would be necessary in order to justify the expenditure.

The court held that a reasonable prudent operator dealing with the leased premises, including the deeper formations, and giving due regard for the interests of both parties, would not have explored further. The reasons given were that the express provisions of the lease did not contemplate drilling to deeper formations; there was no proof that other operators were willing to drill to deeper sands on the lease in question or in the vicinity; and finally, testimony indicated a prudent operator would not drill such a deep test well unless there were at least 500 acres to justify the expense. This case not only illustrates that Arkansas courts consider the profit test important, it also indicates a willingness to cancel the undeveloped portions of a lease for a failure to “further explore,” as distinguished from additional development in a proven formation, where circumstances would justify such exploratory activity.

Kentucky, and some other jurisdictions, has emphasized the economic feasibility of additional wells by comparing the rate of return on existing wells with the prospects of commercial production on surrounding acreage. For instance in McMahan v. Boggess, there had been only one well drilled on a ¾-acre lease at a cost of $22,000 and a return of only $7,000. The lease was cancelled, however, because of an unreasonable delay in further development and because of expert testimony that the prospects of commercial production would justify additional wells.

In the light of these decisions, it might be reasonably concluded that proof of an expectation of profit to the lessee is of considerable importance in determining whether an operator has acted prudently. When such proof is lacking, however, other circumstances such as prolonged and unreasonable delay in further development or exploration, favorable exploratory activity in the immediate vicinity, or other willing operators may result in a judgment for the lessor. Thus, failure to meet the profit test should not be the sole and exclusive factor, but all circumstances should be considered with regard to both parties’ interests.

121. Id. at 116.
122. Id. at 116.
123. E.g., Gregory v. Sohio Petroleum Co., 261 S.W.2d 623, 625 (Ky. 1953).
124. 302 S.W.2d 592 (Ky. 1957).
125. Id. at 593-94; accord, Gregory v. Sohio Petroleum Co., 261 S.W.2d 623 (Ky. 1953). In Gregory the cost of the only well was $10,747 and the return was only $4,662. This loss of profits plus the fact that there were 14 dry holes on 3 adjoining tracts led to a holding which adjudged the lessee had acted as a reasonable prudent operator. Id. at 625.
Unreasonable Delay and Burden of Proof

An unreasonable delay in exploration or development is usually strong evidence that the lessee is holding the undeveloped portions of his lease for speculative purposes only. Most important, such a delay in drilling has affected a lessor's burden of proving the lessee has not acted as a reasonable prudent operator in many decisions. The leading case in this area is Doss Oil Royalty Co. v. Texas Co., decided by the Oklahoma Supreme Court. The suit was to cancel the undeveloped portion of two producing oil and gas leases, on which no wells had been drilled for 14 years. There were six producers on a 40-acre lease and ten producers on a 100-acre lease. The defendant alleged it had acted as a reasonable prudent operator as the circumstances did not indicate further drilling would be a profitable venture and that it expected to drill in the future when circumstances warranted it. There was no effort made to prove that additional wells could be drilled with a reasonable expectation of profit, and the issue clearly was whether the lessor could still be granted a cancellation decree. It was held that relief should be granted under the theory of a breach of the implied covenant to “fully develop.”

In establishing the covenant to fully develop, the court held that

[t]o permit the lessee to hold the lease for an unreasonable length of time for merely speculative purposes, is to allow him to protect his own interest and to disregard the interest of the lessor. If conditions do not indicate to him that further development will be profitable, it is but fair that, after a reasonable time has expired, he surrender the undeveloped portions of the lease and allow the lessor to procure development by others or assume the burden of showing why in equity and good conscience the undeveloped portion should not be cancelled. . .

Based on this principle, the court held that a 14-year delay was an unreasonable time under the circumstances, and in the absence of proof by the lessee showing special circumstances justifying the nondevelopment, the lessor was entitled to relief.

126. E.g., Doss Oil Royalty Co. v. Texas Co., 137 P.2d 934, 938 (Okla. 1943). Contra, Sanders v. Birmingham, 522 P.2d 959, 965-66 (Kan. 1974); Fischer v. Magnolia Petroleum Co., 133 P.2d 95, 100 (Kan. 1943). 127. 137 P.2d 934 (Okla. 1943). 128. Evidence also indicated that it was customary to drill on each 2½ acres and there were 29 untested sites on the 2 leases in question. 129. Doss Oil Royalty Co. v. Texas Co., 137 P.2d 934, 935 (Okla. 1943). 130. Id. at 938. 131. Id. at 938 (emphasis added). 132. Id. at 939. The following cases hold that an unreasonable length of time had occurred: Sparks v. Midstates Oil Corp., 251 F.2d 71, 72 (10th Cir. 1958); Magnolia Petroleum Co. v. Wilson, 215 F.2d 317, 319 (10th Cir. 1954); Gregg v. Harper-Turner Oil Co., 199 F.2d 1, 4 (10th Cir. 1952); Dixon v. Anadarko Prod. Co., 505 P.2d 1394, 1396 (Okla. 1972); Carter v. United States Smelting, Ref. & Mining Co., 485 P.2d 748, 753 (Okla. 1971); Producers Pipe & Supply Co. v. James, 332 P.2d 958, 959 (Okla. 1958); Lyons v. Robson, 330 P.2d 593, 596 (Okla. 1958); Wolfson Oil Co. v. Gill, 309 P.2d 282, 285 (Okla. 1957); Colpitt v. Tull, 228 P.2d 1000, 1003 (Okla. 1950).
In *Magnolia Petroleum Co. v. Rockhold,* the Oklahoma Supreme Court re-emphasized that an unreasonable delay in development creates a *prima facie* case against a lessee, shifting the burden to the lessee to prove that the mineral estate has been developed in a reasonably prudent manner. Thus, an unreasonable delay, standing alone, creates a rebuttable presumption that the lessee has breached the implied covenant to fully develop, and the lessee must then provide evidence sufficient to prove he has acted as a reasonable prudent operator. One opinion has described the effect of an unreasonable delay, saying that

after the passage of a reasonable length of time the duty to drill additional wells becomes progressively greater, and the standard of the prudent operator becomes progressively of less importance in determining whether such duty exists.

Such a presumption has been the basis for cancellation even in further exploration cases, where the lessee has allegedly failed to test deeper and unproven formations, and the lessor has not shown an expectation of profit. There have been several good examples in which the defendant-lessee has produced sufficient evidence to rebut the *prima facie* case established by the lessor. *Trawick v. Castleberry* was a suit for cancellation of that part of an oil and gas lease not included within a communitization agreement. After holding that the primary term had been extended by production on land within the unit, the court considered the plaintiff's contention that the lessees were not diligent in developing it.

The following cases hold that the lessee had sustained the burden of showing special circumstances which excused non-development: *Chenoweth v. Pan American Petroleum Corp.*, 314 F.2d 63, 65-66 (10th Cir. 1963); *Sun Oil Co. v. Frantz*, 291 F.2d 52, 55 (10th Cir. 1961); *Union Oil Co. v. Jackson*, 489 P.2d 1073, 1077-78 (Okla. 1971); *Trawick v. Castleberry*, 275 P.2d 292, 295 (Okla. 1953).

133. 138 P.2d 809 (Okla. 1943).
134. *id.* at 810-11.
136. See *Magnolia Petroleum Co. v. Wilson*, 215 F.2d 317, 319 (10th Cir. 1954) (delay of 26 years held to be *prima facie* breach of a lessee to *explore deeper sands*); *Dixon v. Anadarko Prod. Co.*, 505 P.2d 1394, 1394-96 (Okla. 1972) (*prima facie* breach in failing to drill to *deeper horizons* and it was not necessary to prove that drilling would produce sufficient amount of oil or gas to repay cost of drilling, equipping, and operating the well); *McKenna v. Nichols*, 145 P.2d 957, 960-61 (Okla. 1944) (unreasonable delay supported conditional cancellation decree requiring lessee to drill to *deeper sands* within 60 days despite lack of any expectation of profit).
137. See also *Sand Springs Home v. Clemens*, 276 P.2d 262, 263 (Okla. 1954) (nondevelopment for over 12 years held unreasonable); *Colpitt v. Tull*, 228 P.2d 1000, 1003 (Okla. 1950) (only one well had been drilled on an 80-acre lease 20 years prior to suit, such delay obviated the necessity of proving additional wells would be profitable); *Morrison v. Johnson*, 185 P.2d 208, 210 (Okla. 1947) (unreasonable delay plus no intention to further develop unless other operators joined or assisted financially, lease partially cancelled excepting area around only one gas producer); *Magnolia Petroleum Co. v. Vaughn*, 161 P.2d 762, 765 (Okla. 1945) (one well drilled on a 130-acre tract did not excuse the lessee from *exploring* and developing a 70-acre tract for over 28 years).
Recognizing the rulings of Doss and Rockhold, and granting for purposes of argument that an unreasonable length of time had passed without the drilling of additional wells, it was held that the lessors were, nevertheless, not entitled to relief. The court's reasons for this conclusion included (1) uncontradicted testimony to the effect that a well drilled on the northwest quarter of the southeast quarter had not paid itself out, (2) that several dry holes had been drilled in the immediate vicinity of the lease, and (3) experts testified that additional wells on the lease in question would not be profitable.

The Court of Appeals for the Tenth Circuit reached a similar result in Sun Oil Co. v. Frantz. There the lease covered three noncontiguous tracts, and the lessee had obtained production on tract one during the primary term and on tract two during the pendency of the case on appeal. The court emphasized that the lessee had not been indifferent to the possibilities of development, that it had actively promoted development and had contributed money and acreage to the full exploration of the leased land's mineral potential, that there was no reluctance to proceed with exploratory work, there had been only a 2½ year delay, and that the lessee had drilled or participated in the drilling of 20 wells in the area and was drilling an offset well by tract three at the time of trial. Based on these circumstances, the court refused to cancel the undeveloped portions of the lease.

From these cases it could be concluded that although Oklahoma may not expressly recognize development and exploration as two separate and independent covenants with two corresponding standards of conduct, it does rec-
recognize that a lessee must do both in order to "fully develop" a lease. It has even been held in Oklahoma that such an obligation extends to untested, deeper formations and if there has been an unreasonable delay in developing these formations, then a lessor need not prove an expectation of profit.\(^\text{143}\)

A similar approach has been utilized by the Arkansas Supreme Court in *Nolan v. Thomas*,\(^\text{144}\) in which cancellation was sought on the theory of a breach of the implied covenant to develop, although the technical basis of the cause of action was a refusal to "further explore."\(^\text{145}\) The lessee urged that the lessor had the burden of proving that a prudent operator would have drilled additional wells, and that the lessor failed to meet such burden.\(^\text{146}\) The court rejected this contention holding that the lessor had made a *prima facie* case requiring the lessee-defendants to go forward and offer their proof on the prudent operator rule when it was shown

1. that the leases here involved were executed in 1944 and allowed delay rentals to be paid each year for ten (10) years;
2. that the delay rentals were paid and no drilling was undertaken on the lease until 1954, when one well was drilled and was a small producer;
3. that the plaintiffs then insisted for more than two years that the defendants should drill other wells;
4. that the defendants consistently refused to drill other wells; and
5. that the plaintiffs are not asking that the lease be cancelled on the 40 acres on which there is a producing well, but are asking for cancellation only on the other three 40-acre tracts.\(^\text{147}\)

This reasoning is comparable to the Oklahoma approach in that the Arkansas court accepted the notion that after an unreasonable delay in development or exploration, a lessee should have the burden of presenting evidence sufficient to prove he has acted as a reasonable prudent operator.\(^\text{148}\)

An analogous approach was taken by the Kentucky Court of Appeals in

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\(^\text{144}\) 309 S.W.2d 727 (Ark. 1958).

\(^\text{145}\) *Id.* at 728. In *Nolan*, the lessor sued to cancel a 120-acre tract which had been leased in 1944 for a 10-year primary term. At the end of the primary term, a well was drilled in the northwest corner of the tract which produced only 10 to 20 barrels per day and there was an express intention not to drill any additional wells or further explore.

\(^\text{146}\) *Id.* at 729.

\(^\text{147}\) *Id.* at 729.

\(^\text{148}\) It is also of special importance to point out that the court in *Nolan* cited *Sauder* approvingly and adopted language which read:

The production of oil on a small portion of the leased tract cannot justify the lessee's holding the balance indefinitely and depriving the lessor, not only of the expected royalty from production pursuant to the lease, but of the privilege of making some other arrangement for availing himself of the mineral content of the land.

Cameron v. Lebow. Even though the lease was not cancelled on an implied covenant theory, an unexplained failure to achieve some commercial development for a long period of time was held to be strong evidence of "abandonment." This conclusion was fortified by two factors: that after one attempt to drill proved nonproductive, an assignee had made no further effort to discover oil or gas, and that the court favored a policy against holding a lease for speculative purposes. Thus in Kentucky, while an unreasonable delay in development would raise a presumption of abandonment as distinguished from a breach of covenant, the basis for both approaches seems to be the same—a strong public policy against holding potentially producing leases for speculative purposes, not only depriving the lessor of capital, but also depriving the public at large of the available resources. The main difference is that abandonment would preclude any type of equitable conditional cancellation because in such a case the lessee's rights actually terminate before his case is tried.

A PROPOSED SOLUTION FOR THE CLIFTON V. KOONTZ DILEMMA

The above cases from major oil and gas producing states illustrate the different factors, approaches, and standards for breach used in resolving litigation dealing with development and further exploratory activity. It is arguable that although there is no present case authority expressly recognizing Professor Meyers' theory that a distinction should be made between development and further exploration, the cases seem to recognize a duty both to develop and to explore under the general covenant to "fully develop" the lease. The majority standard in determining whether a lessee has breached this covenant is the reasonable prudent operator rule. The problem, then, is whether the prudent operator rule should be liberally adhered to when the claim is an alleged breach of the duty to further explore. In particular, should the test in all circumstances be an expectation of profit?

In Clifton v. Koontz, the Texas Supreme Court held that the covenant of "development" covers all additional drilling requirements after production

149. 338 S.W.2d 399 (Ky. 1960), rev'd on other grounds, 366 S.W.2d 164 (Ky. 1963).
150. Id. at 407.
151. Id. at 407; accord, Wheeler & Lemaster Oil & Gas Co. v. Henley, 398 S.W.2d 475, 477 (Ky. 1965); Sapp v. Massey, 358 S.W.2d 490, 493 (Ky. 1962). See also Smyth v. Koplin, 294 S.W.2d 525 (Ky. 1956) (lessee held to have "abandoned" the undeveloped portion of a lease because of a lack of production for 8 years).
152. See Wheeler & Lemaster Oil & Gas Co. v. Henley, 398 S.W.2d 475, 477 (Ky. 1968); Doss Oil Royalty Co. v. Texas Co., 137 P.2d 357, 358 (Ark. 1943).
153. See Smith v. Moody, 94 S.W.2d 525, 526 (Ky. 1936); Fischer v. Magnolia Petroleum Co., 133 P.2d 95, 99 (Kan. 1943); Doss Oil Royalty Co. v. Texas Co., 137 P.2d 934, 938 (Okla. 1943).
154. See Brewster v. Lanyon Zinc Co., 140 F. 801, 814 (8th Cir. 1905).
155. 160 Tex. 82, 325 S.W.2d 684 (1959).
is once obtained on the lease. The court also rejected Professor Meyers' theory that a lessor need not prove an expectation of profit when the alleged breach is a failure to further explore, and stated that proof of profit was an essential element of the prudent operator rule. It was recognized in Clifton, however, that the court was not faced with a situation in which the lessee held a large number of acres and in which an unreasonably long time had elapsed since any development had occurred. This language can be interpreted to mean that when the Texas Supreme Court is faced with such a situation, the prudent operator rule might be liberally construed in order to prevent a lessee from holding a large lease for speculative purposes only.

A solution to this situation would be for the Texas Supreme Court to adopt the Oklahoma approach illustrated in the leading case of Doss Oil Royalty Co. v. Texas Co. Doss involved a situation where the lessee attempted to hold a lease without having drilled additional wells for over 14 years. The lessee alleged that it had acted as a reasonable prudent operator because the circumstances did not indicate further drilling would be profitable, but that it expected to drill some time in the future when circumstances warranted it. Based on a strong public policy against holding leases for speculative purposes only, the court granted cancellation. The approach utilized by the Oklahoma Supreme Court in reaching this result was that once a lessee is found to be holding property and there has been an unreasonable length of time since the last well was drilled, then a prima facie case or presumption arises that the lessee is holding the lease for speculation and therefore has breached his implied covenant to fully develop. When this presumption is employed, the lessor is relieved of the burden of proving that additional wells could be drilled with a reasonable expectation of profit. The burden shifts to the lessee to prove he has acted as a prudent operator, and one element of such proof would include testimony that further drilling would not be profitable. As illustrated in Oklahoma cases, there have been many instances where a lessee has in fact rebutted the presumption that he has breached the implied covenant to fully develop.

The use of a presumption where there has been an unreasonable delay in development is also found in the Kentucky cases. The Kentucky approach differs from Oklahoma in that the effect of such an unreasonable de-

156. Id. at 97, 325 S.W.2d at 696.
157. Id. at 98, 325 S.W.2d at 697.
158. Id. at 97, 325 S.W.2d at 696.
159. 137 P.2d 934 (Okla. 1943).
160. Id. at 939.
161. Id. at 938-39.
162. Id. at 938-39.
163. Id. at 939.
lay is to evidence abandonment of the undeveloped portions of the leasehold. The use of such a theory in Texas would create a legal fiction because an oil and gas lease in Texas is a determinable fee estate and a corporeal interest in real property. Only incorporeal interests such as easements or a profit à prendre are subject to abandonment, whereas a corporeal interest in real property is not subject to abandonment regardless of non-use or the intent of the owner.

A third jurisdiction which utilizes a presumption of breach where there is an unreasonable delay in development is Arkansas. Such an approach by the Arkansas Supreme Court should be influential in Texas courts because Arkansas also considers an oil and gas lease a corporeal interest in real property; therefore, the basic policy considerations inherent in the classification of the lease should be similar.

A basic principle underlying the Oklahoma approach as established in Doss is the policy against holding leases for speculative purposes only. The entire purpose of an implied covenant to drill additional wells after initial production has been achieved is to promote diligent exploration and development. This is not to say that the courts should not recognize a lessee’s right to speculate during the primary term of the lease. Where the parties bargain for the payment of delay rentals during the primary term in order to defer the drilling of an initial well, speculation is exactly what they are bargaining for. This period of the lease exists to allow the lessee enough time to explore the lease and determine whether it would be economically feasible to develop it. But, this right to hold the lease for speculative purposes should be limited to the primary term in order to comply with the purposes of the lease.

Once there has been an unreasonable delay in development during the secondary term of the lease, it should be presumed that the lessee is holding the undeveloped portions thereof for purely speculative reasons; therefore, the lessee should be the party who has the burden of proving he has fully developed the lease as a reasonable prudent operator would have done. This burden would entail a showing that the lessee has not only drilled to proven

167. See Texas Co. v. Davis, 113 Tex. 321, 254 S.W. 304 (1923); Humphreys-Mexia Co. v. Gammon, 113 Tex. 247, 254 S.W. 296 (1923); Thomason v. Ham, 113 Tex. 239, 254 S.W. 316 (1923); Robinson v. Jacobs, 113 Tex. 231, 254 S.W. 309 (1923); Stephens County v. Mid-Kansas Oil & Gas Co., 113 Tex. 160, 254 S.W. 290 (1923). These cases were all decided the same day and the opinions were written by Justice Greenwood who firmly established the view that an oil and gas lease in Texas is a determinable fee estate and a corporeal interest in real property. See also Texas Co. v. Daugherty, 107 Tex. 226, 176 S.W. 717 (1915).
formations, but also those untested areas of the lease in which a reasonable prudent operator would test considering all the circumstances.

The adoption of the Oklahoma approach would not be entirely foreign to Texas precedent, especially since the standard retained in such an approach is the prudent operator rule so rigidly followed in Texas.171 Second, Texas cases have illustrated a long standing public policy against speculation which is at the heart of the proposed Oklahoma approach. In Texas Co. v. Davis,172 decided in 1923, the court terminated a lease which under the habendum clause was to continue for at least 25 years after the discovery of oil or gas. Justice Greenwood supported this holding, stating:

The lessees in that case contended that by completing the first well, producing oil in paying quantities, in accordance with the stipulation in the lease, they acquired an absolute vested title to the oil, of which they could be divested save by reconveyance, etc. It was decided that on completion of the well the lessees did take title to the oil. But, in denying that the lessees could refuse performance of their obligations and continue to hold or own the oil, it is said, with irrefutable logic:

There is no case which goes so far as to announce that after mere discovery of oil, the lessee, upon the assumption of a vested interest or title, may cease operation, refuse to develop the property, tie up the oil by his lease and simply hold it for speculative purposes, or to await his own pleasure as to the time of development.173

This policy against speculation was again applied by the Texas Supreme Court in Garcia v. King,174 holding that the term “produced” found in a thereafter clause is equivalent to the phrase “produced in paying quantities:”175

So far as the lessees were concerned, the object in providing for a continuation of the lease for an indefinite time after the expiration of the primary period was to allow the lessees to reap the full fruits of the investments made by them in developing the property. Obviously, if the lease could no longer be operated at a profit, there were no fruits for them to reap. The lessors should not be required to suffer a continuation of the lease after the expiration of the primary period merely for speculative purposes on the part of the lessees. Since the lease was no longer yielding a profit to the lessees at the termination of the primary period, the object sought to be accomplished by the continuation thereof had ceased, and the lease had terminated.176

This holding clearly illustrates a policy against speculation after the primary term has ended, which supports the basic purpose of the presumption

172. 113 Tex. 321, 254 S.W. 304 (1923).
173. Id. at 333-34, 254 S.W. at 308, quoting Parish Fork Oil Co. v. Bridgewater Gas Co., 42 S.E. 655, 658 (W. Va. 1902) (emphasis added).
174. 139 Tex. 578, 164 S.W.2d 509 (1942).
175. Id. at 581-85, 164 S.W.2d at 512-13.
176. Id. at 585-86, 164 S.W.2d at 512-13 (emphasis added).
that a lessee has breached his implied covenant to diligently drill additional wells when there is proof of an unreasonable delay in development.

Finally, in cases where the rights of the general public are concerned, public policy should be considered in reaching an equitable decision. This is especially true where there is an allegation that a lessee has failed to fully develop an oil and gas lease. This public policy is the promotion of further exploratory and/or additional development of oil and gas leases in order to benefit not only the lessor's private interest, but also to place all potentially producing reservoirs within the market place. The more domestic reserves which are discovered, the less the public will have to depend on foreign countries for oil. It has been said that this public policy is reflected in the intangible drilling deductions in federal income tax law, the discovery allowables in state conservation regulations, and the restrictions on imported oil.177

Of course public policy should not require a lessee to drill additional wells in a "proven" horizon where there is no expectation of profit. The purpose of an implied covenant is not to facilitate bankruptcy. The purpose should be to require a lessee to diligently prosecute exploratory and/or development wells which the lessor, courts and public expect a reasonable prudent operator would drill under all the circumstances. When a lessee has failed to fully develop a lease as a prudent operator, and is holding those undeveloped portions of a lease for speculative purposes, he has the duty to release this undeveloped land so others may have the opportunity to market available reserves. It is only fair that after an unreasonable length of time has elapsed since any effort to further develop or explore the lease has occurred, the lessee should bear the burden of proving he has indeed fully developed the lease as a reasonable prudent operator.

An excellent case in which the Oklahoma approach could have been utilized was Sinclair Oil & Gas Co. v. Masterson.178 The suit involved the allegation that the lessee had failed to develop and explore portions of a lease covering ninety thousand acres. The court laudibly found that the delay in development and exploration for over 25 years was unreasonable, and held that the lessors need not prove additional drilling would be profitable in order to obtain relief.179 If the court had followed the Oklahoma approach established in Doss, such an unreasonable delay in exploration and development would have created a presumption that a breach of the implied covenant to further develop had occurred, thereby relieving the lessor from the burden of proving an expectation of profit.

177. See 5 H. Williams & C. Meyers, Oil and Gas Law § 802.2, at 12 (1972).
178. 271 F.2d 310 (5th Cir. 1959).
179. Id., at 321.