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United States Court of Appeals
Tenth Circuit

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PATRICK FISHER
Clerk

PUBLISH

UNITED STATES COURT OF APPEALS
TENTH CIRCUIT

ATLANTIC RICHFIELD COMPANY,

Plaintiff-Counter-Defendant-Appellee,

v.

THE FARM CREDIT BANK OF WICHITA, formerly known as the Federal Land Bank of Wichita,

Defendant-Counter-Claimant-Appellant,

and

STANLEY A. MOLLERSTUEN; HAL A. McVEY; HELEN D. McVEY; CAROL KOSCOVE,

Defendants-Counter-Claimants,

ALFRED GARCIA; NADDIE GARCIA; EDWARD GARCIA; MARY RUTH SALAZAR-TIER; PEGGY GARCIA; JACQUIE GARCIA; CATHERINE VOELKERDING; MANUELITA BECK; ANNA M. MARTINEZ; GERALDINE VELASQUEZ,

Intervenors,

and

NATIONAL ASSOCIATION OF ROYALTY OWNERS, INC.,

Amicus Curiae.

No. 99-1147

ATLANTIC RICHFIELD COMPANY,

Plaintiff-Counter-Defendant-Appellant,

v.

No. 99-1148

THE FARM CREDIT BANK OF WICHITA, formerly known as the Federal Land Bank of Wichita; CAROL KOSCOVE,

Defendants-Counter-Claimants-Appellees,

and

STANLEY A. MOLLERSTUEN; HAL A. McVEY; HELEN D. McVEY,

Defendants-Counter-Claimants,

ALFRED GARCIA; NADDIE GARCIA; EDWARD GARCIA; MARY RUTH SALAZAR-TIER; PEGGY GARCIA; JACQUIE GARCIA; CATHERINE VOELKERDING; MANUELITA BECK; ANNA M. MARTINEZ; GERALDINE VELASQUEZ,

Intervenors-Appellees,

and

NATIONAL ASSOCIATION OF ROYALTY OWNERS, INC.,

Amicus Curiae.

ATLANTIC RICHFIELD COMPANY,

Plaintiff-Counter-Defendant-Appellee,

v.

No. 99-1154

THE FARM CREDIT BANK OF WICHITA, formerly known as the Federal Land Bank of Wichita; STANLEY A. MOLLERSTUEN; HAL A. McVEY; HELEN D. McVEY,

Defendants-Counter-Claimants,

and

CAROL KOSCOVE,

Defendant-Counter-Claimant-Appellant,

ALFRED GARCIA; NADDIE GARCIA; EDWARD GARCIA; MARY RUTH SALAZAR-TIER; PEGGY GARCIA; JACQUIE GARCIA; CATHERINE VOELKERDING; MANUELITA BECK; ANNA M. MARTINEZ; GERALDINE VELASQUEZ,

Intervenors,

and

NATIONAL ASSOCIATION OF ROYALTY OWNERS, INC.,

Amicus Curiae.

ATLANTIC RICHFIELD COMPANY,

Plaintiff-Counter-Defendant-Appellee,

v.

DARWIN H. SMALLWOOD,

Defendant,

and

THE FARM CREDIT BANK OF WICHITA, formerly known as the Federal Land Bank of Wichita; STANLEY A. MOLLERSTUEN; HAL A. McVEY; HELEN D. McVEY; CAROL KOSCOVE,

Defendants-Counter-Claimants,

ALFRED GARCIA; NADDIE GARCIA; EDWARD GARCIA; MARY RUTH SALAZAR-TIER; PEGGY GARCIA; JACQUIE GARCIA; CATHERINE VOELKERDING; MANUELITA BECK; ANNA M. MARTINEZ; GERALDINE VELASQUEZ,

Intervenors-Appellants,

and

NATIONAL ASSOCIATION OF ROYALTY OWNERS, INC.,

Amicus Curiae.

No. 99-1183

APPEAL FROM UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO
(D.C. No. 95-Z-1767)

Steven R. Rider (E. Dwight Taylor with him on the brief), Rider & Woulf, P.C., of Aurora, Colorado, for The Farm Credit Bank of Wichita.

Anthony J. Shaheen (Gail L. Wurtzler, Charles L. Kaiser, and William A. Bianco with him on the brief), Davis, Graham & Stubbs LLP, of Denver, Colorado, for Atlantic Richfield Company.

George W. Mueller, Burns, Wall, Smith and Mueller, P.C., of Denver, Colorado, for Carol Koscove.

H. Paul Cohen (Thomas W. Niebrugge, Lindquist, Vennem & Christensen, with him on the brief), of Denver, Colorado, for Alfred Garcia, Naddie Garcia, Edward Garcia, Mary Ruth Salazar-Tier, Peggy Garcia, Jacquie Garcia, Catherine Voelkerding, Manuelita Beck, Anna M. Martinez, and Geraldine Velasquez.

Robin Stead and Donald F. Heath, Jr., Stead & Heath, P.C., of Oklahoma City, Oklahoma, on the brief for National Association of Royalty Owners, Inc., amicus curiae.

Before **BRISCOE, McWILLIAMS**, and **ALARCON**[1], Circuit Judges.

BRISCOE, Circuit Judge.

This complex litigation involves several oil and gas leases. The lessee, plaintiff Atlantic Richfield Company ("ARCO"), filed a claim for declaratory relief. The defendant lessors – the Farm Credit Bank of Wichita ("FCB"), Carol

[1] Honorable Arthur L. Alarcon, Senior Circuit Judge, United States Court of Appeals for the Ninth Circuit, sitting by designation.

Koscove ("Koscove"), and members of the Garcia family ("the Garcias") – countered by filing a variety of counterclaims against ARCO. The district court issued a series of rulings resolving all of the parties' claims prior to trial. ARCO appeals three of these rulings, and the defendants appeal at least seven others. We exercise jurisdiction pursuant to 28 U.S.C. § 1291, affirm in part, and reverse in part. [2]

I. BACKGROUND

In the 1970s, ARCO discovered that carbon dioxide ("CO^2") can be used to increase recovery from certain types of oil reservoirs. This process is commonly

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[2] ARCO has filed a motion to supplement the record to "correct and clarify" what it views as factual misstatements in the defendants' appellate brief. After reviewing the briefs submitted in connection with ARCO's motion, we conclude (as we did in United States v. Haddock, 50 F.3d 835 (10th Cir. 1995)) that the proffered materials "are neither necessary nor helpful to the resolution of this appeal" under Federal Rule of Appellate Procedure 10(a). Id. at 841 n.4; see also United States v. Hernandez, 94 F.3d 606, 611 n.3 (10th Cir. 1996) (declining to consider supplemental evidence that was not necessary to the court's decision). For that reason, we deny the motion to supplement. ARCO has also filed a motion seeking to strike an amicus curiae brief submitted by the National Association of Royalty Owners ("NARO"). To the extent that NARO's brief raises arguments that have never been advanced by the parties, we grant ARCO's motion. See Tyler v. City of Manhattan, 118 F.3d 1400, 1404 (10th Cir. 1997) ("[I]t is truly the exceptional case when an appellate court will reach out to decide issues advanced not by the parties but instead by amicus."). The rest of the arguments in NARO's brief are either unsupported by the record, unencumbered by citations to legal authority, or irrelevant to our resolution of the issues presented in this appeal.

referred to as “tertiary recovery” or “enhanced oil recovery” (“EOR”). Joint Appendix (“Jt. App.”) at 95-96 (¶¶ 22-23), 2447 (¶ 5), 7106-07. In 1975, ARCO acquired oil and gas leases for lands in Huerfano County, Colorado with the potential for CO^2 production. FCB, Koscove, and the Garcias own royalty interests in these leases, which were unitized[3] into a “Sheep Mountain Unit” (“SMU”) for the exploration, development, and production of CO^2. Id. at 97 (¶ 27), 1700. Because the nearest market is approximately 400 miles away, ARCO constructed a pipeline (the “Pipeline”) to transport the CO^2 from the SMU to the Permian Basin in West Texas.

The parties’ leases provide the starting point for all royalty calculations. The Garcias’ lease expressly contemplates some form of a transportation deduction and states that royalties shall be based on market values determined “at the mouth of the well”:

> If Lessee sells gas at the mouth of the well, Lessee shall pay Lessor as royalty 1/8 of the proceeds from such sale. If Lessee sells gas at a point other than at the mouth of the well, Lessee shall pay Lessor as royalty on said gas 1/8 of the proceeds from such sale, after deducting from such proceeds the reasonable cost of preparing said gas for market, including but not limited to the cost of any necessary compression and the cost of transporting said gas to the point of sale. Where gas is not sold by Lessee, but is used by Lessee for any purpose other than the manufacture of gasoline or any other product,

[3] “Unitization refers to the consolidation of mineral or leasehold interests in oil or gas covering a common source of supply.” Amoco Prod. Co. v. Heimann, 904 F.2d 1405, 1410 (10th Cir. 1990).

> Lessee shall pay Lessor as royalty on said gas 1/8 of the market value of said gas, said value to be determined at the mouth of the well, and in determining said market value, there shall be deducted any cost of any necessary compression, the cost of transporting said gas to the point of use, and any other reasonable cost for preparing such gas for use.

Id. at 276. FCB's lease is silent on the deductibility of transportation expenses. Like the Garcias' lease, however, the 1975 version of FCB's lease states that royalties shall be based on market values determined "at the mouth of the well":

> The lessee shall pay to lessor for gas produced from any oil well and used by the lessee for the manufacture of gasoline or any other product as royalty 1/8 of the market value of such gas at the mouth of the well: if said gas is sold by the lessee, then as royalty 1/8 of the proceeds of the sale thereof at the mouth of the well.

Id. at 345. FCB's lease was amended and "corrected" in 1977. Among other things, the corrected amendment changes the royalty rate from 1/8 to 3/16, id. at 348, and adds a provision entitled "Gas Pricing":

> Anything to the contrary above stated notwithstanding, the price which Lessee shall pay for gas produced pursuant to this lease when Lessor is not exercising its option to take in kind shall be respectively for each chemical or generic type of gas (for example, carbon dioxide gas, or hydrocarbon gas, etc.), as the case may be, the highest current market price at the time the gas is produced and sold of (1) the highest paid in Huerfano County, (2) the current market price established by the Federal Government for its share of the gas, or (3) the amount received by Atlantic for its share of the gas.

Id. at 352. The amendment also inserts the following language into the lease's granting clause: "The word 'gas' as used in this lease shall include gases of all kinds, whether hydrocarbon gas or gases or nonhydrocarbon gas or gases, including but not limited to carbon dioxide gas, and any mixture or mixtures of any such gases." Id. at 348.

In addition to the lease contracts, the question also arose as to whether ARCO's relationship with the Exxon Company ("Exxon") affected the parties' royalty obligations. ARCO executed an "Agreement on Principles" ("AOP") in 1981 that conveyed to Exxon a 50% interest in the Pipeline and the CO^2 produced at the SMU. Id. at 4025, 4030. Under the AOP, ARCO pays all royalties on CO^2 produced at the SMU. Exxon then reimburses ARCO for royalties paid on Exxon's share of the gas. Exxon agreed in the AOP to pay the first $128.7 million to develop the SMU facilities, the first $120 million to develop the Pipeline, and 50% of all costs thereafter.[4] By the defendants' calculation, ARCO ultimately contributed less than $50 million in capital toward the SMU and the Pipeline. This $50 million contribution represented about 15% of the companies' combined capital expenditure, which amounted to more than $285 million.

As intended, CO^2 from the SMU is sold, used in kind, or exchanged to increase oil production in West Texas. To determine the "wellhead" value of the CO^2 and the lessors' royalties, ARCO uses a "work back" or "net back" method.

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[4] ARCO, Exxon, and Amerada Hess own the Pipeline. ARCO and Exxon own 50% interests in the northern part of the Pipeline, and 35% interests in the southern part. Amerada Hess owns the remaining 30% interest in the southern part of the Pipeline.

ARCO calculates the wellhead value of the CO^2 by subtracting transportation and conditioning costs from the value of the CO^2 in the West Texas market. The costs deducted by ARCO fall into three categories: (1) operations and maintenance costs; (2) depreciation costs, which include interest during construction (“IDC”); and (3) cost of capital (“COC”). ARCO defines IDC as the cost of money used to build a facility, or the “[i]nterest charged on the investments made prior to commencement of operations.” Id. at 2787, 2917. ARCO defines COC as the “opportunity cost” of capital, including the cost of building a facility through debt or equity financing. Id. at 2923-24, 2963. In other words, COC is “the rate of return that is required to induce investors to purchase the securities of a firm. This rate of return is the same as an investor’s opportunity cost of capital, which is the rate of return that an investor can earn on an investment of similar risk.” Id. at 2787 (citation omitted).

ARCO initiated this litigation by filing suit against FCB, Koscove, and other parties in July 1995. Among other things, the company requested a judicial declaration that “it has been and continues to be proper for ARCO to deduct the allocated share of all costs associated with transporting the CO^2 Gas from the point of production at the Sheep Mountain Unit to the West Texas market from royalty payments.” Id. at 80-81. With the district court’s permission, the Garcias intervened and became parties to the case in April 1997.[5] FCB, Koscove, and the Garcias answered the complaint and filed counterclaims alleging that ARCO breached the lease agreements by underestimating the fair market value of SMU CO^2 and by deducting certain transportation costs from royalty payments. The defendants also asserted counterclaims for fraud and breach of fiduciary duty based on ARCO's alleged misrepresentation and concealment of the manner in which the company calculated market value and royalty deductions.

II. ARCO'S TRANSPORTATION DEDUCTION

Because the parties litigated the propriety of ARCO's transportation deduction in motions for summary judgment, our standard of review is de novo. See King of the Mountain Sports, Inc. v. Chrysler Corp., 185 F.3d 1084, 1089 (10th Cir. 1999) (affirming that "[w]e review the grant of summary judgment de novo"). Summary judgment is appropriate if "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). When

[5] The Garcias filed two motions to intervene, the first of which was denied without prejudice. The Garcias agreed in their second motion to intervene "to enter th[e] litigation subject to all previous orders regarding substantive legal issues and procedural matters." Jt. App. at 2280 (¶ 15).

applying this standard, we "view the evidence and draw all reasonable inferences therefrom in the light most favorable to the party opposing summary judgment." Martin v. Kansas, 190 F.3d 1120, 1129 (10th Cir. 1999). "Only disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment." Martin, 190 F.3d at 1129 (citation omitted). When the parties file cross motions for summary judgment, "we are entitled to assume that no evidence needs to be considered other than that filed by the parties, but summary judgment is nevertheless inappropriate if disputes remain as to material facts." James Barlow Family Ltd. Partnership v. David M. Munson, Inc., 132 F.3d 1316, 1319 (10th Cir. 1997); see also Buell Cabinet Co. v. Sudduth, 608 F.2d 431, 433 (10th Cir. 1979) ("Cross-motions for summary judgment are to be treated separately; the denial of one does not require the grant of another.").

A. Procedural history

The parties began by submitting cross-motions for summary judgment addressing the deductibility of transportation costs from the defendants' royalties. ARCO later withdrew its request for summary judgment against Koscove, stating that "certain unique facts and circumstances" indicated that "it was the intent of the parties to the Koscove lease that transportation costs not be deducted." Id. at 940. The district court then considered the balance of ARCO's motion and concluded that ARCO could deduct transportation expenses for its 50% share of the SMU CO^2 from the royalties of all defendants except Koscove. The court ruled that the phrase "at the mouth of the well" in FCB's original lease was an industry term of art, and that the 1977 amendments to FCB's lease unambiguously "did not extinguish th[at] word of art." Id. at 1386f; see also id. ("It just seems very clear to this court that that's the only way that [the Gas Pricing provision] can be read."). The court also found that the 1981 AOP constituted a "sale at the well head" of 50% of the CO^2 to Exxon, from which transportation costs could not be deducted. Id. at 1386e.

The defendants subsequently filed a separate motion for summary judgment asking the district court to rule that IDC, COC, and other depreciation costs could not be used by ARCO to reduce royalty payments. The court granted the motion in part, holding that under the terms of the defendants' leases "neither the cost of capital, nor the interest during construction are to be included or can be included as a matter of law in transportation costs." Id. at 3795. The court reasoned that IDC and COC were "ownership charges, not transportation charges." Id. at 3794. ARCO filed two motions to reconsider, both of which were denied. In its order denying ARCO's first motion to reconsider, the court reiterated that the defendants' lease contracts permitted deductions for "actual costs, that is, plaintiff's out of pocket expenses for transporting the gas. . . . Interest during construction is not authorized under the agreement, and cost of capital and plaintiff's hypothetical profit margin for transporting the gas are not actual costs." Id. at 3849-50 (emphasis in original). The court went on to conclude that operations and maintenance costs and depreciation expenses constituted "actual cost[s] of transporting the gas." Id. at 3850.

On ARCO's motion, the parties then filed briefs "to determine the appropriate methodology to value the Exxon share of the Sheep Mountain gas for royalty payments." Id. at 3816. The parties agreed that this was a question of law, and stipulated certain facts. Ruling from the bench, the district court held that ARCO's depreciation deduction should be based on "the sale price in Texas less the transportation cost without regard to the 15-percent/85-percent provisions in the AOP." Id. at 5144. The court commented that the deduction had to be calculated for "50 percent of the gas," and found that the AOP was "not relevant to the royalty owners' obligation to share a proportional share of the costs of transportation." Id. at 5150, 5152. The court also concluded that (1) the language of FCB's lease did not preclude a transportation deduction; and (2) ARCO properly based FCB's royalty on a weighted average price ("WAP"), rather than the highest price for CO^2 in any individual sales contract.

The district court thus made three important rulings bearing on ARCO's transportation deduction. The court determined that (1) ARCO could deduct transportation costs from FCB's and the Garcias' royalties, but not from Koscove's; (2) ARCO could not include IDC or COC in its transportation deduction, but could include other depreciation costs; and (3) ARCO and Exxon should share all transportation costs equally for purposes of computing the depreciation deduction.[6] ARCO appeals the court's ruling that IDC and COC should not have been included in the transportation deduction. The defendants appeal the remainder of the district court's rulings. In addition, FCB appeals the court's approval of WAP-based royalty calculations.

B. Royalty calculations under FCB's lease

We must first determine whether the district court correctly construed FCB's lease. The Colorado Supreme Court recognizes that "[t]he primary goal of contract interpretation is to determine and give effect to the intention of the parties." USI Properties East, Inc. v. Simpson, 938 P.2d 168, 173 (Colo. 1997); see also May v. United States, 756 P.2d 362, 369 (Colo. 1988) ("It is axiomatic that a contract must be construed to ascertain and effectuate the mutual intent of the parties."). The parties' intent "is determined primarily from the language of

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[6] In May 1996, the district court granted Exxon's motion for summary judgment and dismissed Exxon as a party. The court determined that there was "no basis in this case for Exxon to be sued" because there was "no privity between any of the lessees and Exxon." Jt. App. at 1386b. The court also concluded that there was "no indication that Exxon [wa]s a partner of ARCO or a joint venturer with ARCO." Id. ARCO and the defendants do not contest this ruling on appeal.

the instrument itself and extraneous evidence of intent is only admissible where there is an ambiguity in the terms of the agreement." May, 756 P.2d at 369; see also New York Life Ins. Co. v. KN Energy, Inc., 80 F.3d 405, 411 (10th Cir. 1996) (stating that under Colorado law a reviewing court must "ascertain the parties' intent at the time the document was executed, and that intent is to be determined primarily from the instrument itself"); Pepcol Mfg. Co. v. Denver Union Corp., 687 P.2d 1310, 1314 (Colo. 1984) ("It is only where the terms of an agreement are ambiguous or are used in some special or technical sense not apparent from the contractual document itself that the court may look beyond the four corners of the agreement in order to determine the meaning intended by the parties."). In determining whether a contractual term is ambiguous, "the instrument's language must be examined and construed in harmony with the plain and generally accepted meaning of the words employed, and reference must be made to all the provisions of the agreement." May, 756 P.2d at 369 (quoting Radiology Prof'l Corp. v. Trinidad Area Health Ass'n, Inc., 577 P.2d 748, 750 (Colo. 1978)). "Merely because the parties have different opinions regarding the interpretation of the contract does not itself create an ambiguity in the contract." USI Properties East, 938 P.2d at 173; accord Radiology, 577 P.2d at 750; see also Lowell Staats Mining Co. v. Pioneer Uravan, Inc., 596 F. Supp. 1428, 1430 (D. Colo. 1984) (indicating that under Colorado law "[t]he express provisions of a document should not be rewritten merely because of the contrary assertions of a party to the agreement").

1. Transportation expenses

The 1975 version of FCB's lease clearly permits deductions for transportation expenses. The original lease states that FCB's royalty shall be based on the "proceeds of the sale" at "the mouth of the well." By itself, the phrase "at the mouth of the well" necessarily incorporates a transportation deduction, since the nearest market for CO^2 from the SMU is 400 miles away in West Texas:

> Many leases make specific provision for payment on the basis of the market value or market price at the well. . . . If there should be no market for gas at the well but there should be a distant market, then the market value of gas at the well may be determined by using the market price at the distant market after deducting from such price the costs of transportation to such distant market.

3 Eugene Kuntz, Treatise on the Law of Oil and Gas § 40.5, at 356 (1989); see also 3 Williams & Meyers on Oil and Gas Law § 645.2, at 597-98, 601-02 (1999) (confirming that a royalty interest payable "at the well" is "usually subject to a proportionate share of the costs incurred subsequent to production," including "[t]ransportation charges or other expenses incurred in conveying the minerals produced from the well-head to the place where a buyer of the minerals takes possession thereof"). Even if we assume that the "at the mouth of the well" clause is silent on the allocation of transportation costs, Colorado law fills the

void. The rule in Colorado is that "absent a lease provision to the contrary, the cost required to transport an otherwise marketable product to a distant market is to be deducted before the royalty is to be computed." Rogers v. Westerman Farm Co., 986 P.2d 967, 971 (Colo. Ct. App. 1999); see also Garman v. Conoco, Inc., 886 P.2d 652, 654 n.1 (Colo. 1994) (noting that "[t]raditionally, the costs to transport gas to a distant market are shared by all benefitted parties").[7]

Unable to identify any ambiguities in the original lease, FCB nonetheless argues that the "at the mouth of the well" clause cannot support a transportation deduction for two reasons. First, FCB asserts that there was no "trade usage or custom relating to the leasing, production or transportation of CO^2" at the time the phrase "at the mouth of the well" was written into the lease. FCB's Opening Brief at 16. As a result, says FCB, it could not have "contracted in reference to 'mouth of the well'" as a binding "term of art." Id. at 20. Second, FCB contends that "the word 'gas', as used in the original Leas[e], was not understood by the parties to include CO^2." Id. at 20. In FCB's view, the lease did not encompass the production and sale of CO^2 until it was amended in 1977.

[7] Kansas, FCB's principal place of business, observes the same rule. See Sternberger v. Marathon Oil Co., 894 P.2d 788, 796 (Kan. 1995) ("[W]here royalties are based on market price 'at the well,' or where the lessor receives his or her share of the oil or gas 'at the well,' the lessor must bear a proportionate share of the expenses in transporting the gas or oil to a distant market."); id. at 800 (stating that the Colorado Supreme Court in Garman "held as we believe the law in Kansas to be").

Both of these arguments are red herrings. As discussed above, the phrase "at the mouth of the well" in the original lease either (a) expressly contemplates a transportation deduction; or (b) is silent on the issue, in which case the parties are required to share transportation expenses under state law. FCB's purported ignorance of any "trade usage" associated with the phrase "at the mouth of the well" in 1975 simply does not address the latter proposition. FCB's assertion that the original lease did not encompass CO^2 is similarly irrelevant. Even if the original lease did not specifically address CO^2 (an issue that we need not decide), the amended lease does. Unless the corrected amendment eliminates or alters the "at the mouth of the well" clause, transportation costs for CO^2 must be shared. See Rogers , 986 P.2d at 972 (explaining that lease terms which "provid[e] that the valuation point is the wellhead" confirm the "traditional rule" that "transportation costs to some other point are to be shared").

This brings us to the 1977 amendments, which arguably trump the terms of the original lease. The Gas Pricing provision appears to shift the focus of FCB's royalty calculation from the "proceeds of the sale" at "the mouth of the well" to the highest of three "current market price[s] at the time the gas is produced and sold." Jt. App. at 352. The Gas Pricing provision further states that it overrides "[a]nything to the contrary." Id. Without any immediate market in Colorado, ARCO necessarily had to account for transportation costs under the original lease to determine the proceeds of any sale "at the mouth of the well." In contrast, the Gas Pricing provision in the amended lease ostensibly requires ARCO to pay a 3/16 royalty on the highest of three specified amounts at the moment of any CO^2 sale. Whether ARCO must transport the CO^2 to a distant market has no effect on this proposed calculation. Stated differently, the royalty calculation under the amended lease may not involve a constructed value for CO^2 "at the mouth of the well," but instead may turn on one of three pre-determined amounts. Nothing within the four corners of the lease contract suggests that this interpretation of the Gas Pricing provision is unreasonable.

There is, however, an alternative interpretation of the Gas Pricing provision that is equally reasonable. As ARCO points out, the original lease arguably "provided the critical information for calculating FCB's royalty: (i) the rate – '1/8', (ii) the principal or corpus on which the royalty is calculated – 'proceeds of the sale' and (iii) the place of valuation – "at the mouth of the well.'" ARCO's Response Brief To Opening Brief Of FCB at 5. Because the Gas Pricing provision "does not mention the place of valuation," id. at 9, it is conceivable that the 1977 amendments had no effect on the "at the mouth of the well" language in the 1975 version of the lease. The amendments do not expressly contradict or remove this language, and adopt by reference most of the terms of the original lease "as if fully set out herein." Jt. App. at 348, 351. Once again, nothing within the four corners of the contract suggests that this alternative interpretation of the Gas Pricing provision is unreasonable.

We therefore conclude that the Gas Pricing provision is ambiguous when juxtaposed with the "at the mouth of the well" clause in the original lease. It is beyond cavil that "[t]erms used in a contract are ambiguous when they are susceptible to more than one reasonable interpretation." B & B Livery, Inc. v. Riehl, 960 P.2d 134, 136 (Colo. 1998). Once a contract is determined to be ambiguous, "the meaning of its terms is generally an issue of fact to be determined in the same manner as other disputed factual issues." Dorman v. Petrol Aspen, Inc., 914 P.2d 909, 912 (Colo. 1996) (citation omitted); see also Polemi v. Wells, 759 P.2d 796, 798 (Colo. Ct. App. 1988) (stating that when an ambiguity "cannot be resolved by reference to other contractual provisions," extrinsic evidence must be considered "to determine the mutual intent of the parties at the time of contracting"). The parties' appellate briefs refer to several types of extrinsic evidence that may help resolve this issue of fact, including (1) statements by FCB's chief negotiator suggesting that he inserted the Gas Pricing provision in 1977 to replace the "at the mouth of the well" clause; (2) correspondence from 1977 suggesting that ARCO did not bargain away its right to deduct transportation expenses; and (3) Koscove's lease, which may be similar in some respects to FCB's. We leave it to the district court to consider on remand whether this or any other extrinsic evidence is relevant and admissible for the purpose of clarifying the Gas Pricing provision.

2. Highest price

FCB also contends that the amended lease precludes ARCO from (1) using a weighted average price (WAP) to calculate royalties, and (2) basing the WAP in part on the value of Exxon's CO^2. ARCO acknowledges that its WAP methodology "takes into account all the volumes of CO^2 sold or delivered and the prices received for those volumes," ARCO's Response To Opening Brief Of FCB at 26-27, and does not object to FCB's description of the process:

> Each month ARCO first calculates the volume of gas it uses based on contracts for sale, in-kind use, and exchanges in West Texas. Depending on the month, ARCO adds the volumes of twenty or so different contracts to determine total volume. It then estimates the value for exchanges and supply-in-kind contracts based on sales contracts in that unit. It then multiplies the value times the volume. ARCO then adds the volume of gas used by Exxon, times the Exxon price. Finally, ARCO averages the values from all sales, exchanges and supply-in-kind contracts to arrive at a weighted average price.

FCB's Opening Brief at 12-13 (footnote omitted). According to FCB, this methodology is inconsistent with the phrase "amount received by Atlantic for its share of the gas" in subsection (3) of the Gas Pricing provision.

We conclude the "amount received" language in the Gas Pricing provision does not foreclose the use of a WAP. "Amount" typically means "aggregate" or "the total number or quantity." Webster's Third New Int'l Dictionary 72 (unabridged ed. 1993). That definition indicates that the "amount received" in the amended lease refers to the aggregate price received by ARCO from all CO^2 sales, not the price received from a particular sale. Furthermore, it is hornbook law that "[t]he court's duty is to interpret and enforce contracts as written between the parties, not to rewrite or restructure them." Fox v. I-10, Ltd., 957 P.2d 1018, 1022 (Colo. 1998). Accepting FCB's proffered interpretation would require us to do just that. Subsection (3) of the Gas Pricing provision does not say that FCB is entitled to the "highest amount received" by ARCO on its share of the gas. Instead, it says that FCB is entitled to the "highest current market price at the time the gas is produced and sold of" a specified range of alternatives, one of which is ARCO's "amount received."

On the flip side of the coin, however, the use of Exxon's sales to calculate the WAP disregards the plain language of the lease. Subsection (3) of the Gas Pricing provision does not say that a potential basis for FCB's royalties is "the amount received by Atlantic and Exxon" for their respective shares of the CO^2. Rather, the only party named in the subsection is ARCO. ARCO contends that interpreting the contract to exclude the amount received by Exxon would "produce an absurd result," because the AOP grants Exxon a 50% interest in the SMU CO^2 and "royalty is due on all production." ARCO's Response To Opening Brief Of FCB at 26. But any "absurdities" created by this interpretation stem from ARCO's voluntary decision to enter into the AOP, not from the amended lease. As a consequence, we conclude that the Gas Pricing provision permits the use of a WAP founded on the amounts received by ARCO – not Exxon – for ARCO's share of the CO^2.

C. The components of the transportation deduction

1. IDC and COC

Whether IDC and COC are deductible transportation expenses depends in part on the language of the parties' lease contracts. We begin with the Garcias' lease contract, which permits "reasonable" deductions for the "cost of transporting" CO^2 from the SMU to the point of use. Jt. App. at 276. Accordingly, our first task is to determine whether the phrase "cost of transporting" in the Garcias' lease unambiguously includes or excludes IDC and COC. If we conclude that the phrase is indeed unambiguous and that it includes IDC and COC, our next task is to determine whether the reasonableness of ARCO's deductions is a disputed issue of material fact.

We need not complete the second task, because the phrase "cost of transporting" is decidedly ambiguous. The phrase does not expressly include IDC and COC. Nor does it expressly exclude IDC and COC. Moreover, several permutations of the word "cost" have been deemed ambiguous by Colorado courts. For example, in Tripp v. Cotter Corp., 701 P.2d 124 (Colo. Ct. App.

1985), a Colorado court of appeals concluded that the phrase "cost of milling" was ambiguous:

> [T]he mining contract at issue here does not expressly describe the components to be included in calculating the costs of milling. There is nothing in the contract which defined the phrase "cost of . . . milling," nor were there any provisions which described what the phrase encompassed in terms of those costs. The phrase in question is therefore ambiguous, and testimony offered for the purpose of explaining and interpreting it should not have been excluded.

Id. at 126. Other Colorado cases reach similar results. See Pepcol, 687 P.2d at 1314 (finding the term "at seller's cost" to be ambiguous); Southgate Water Dist. v. City and County of Denver, 862 P.2d 949, 955 (Colo. Ct. App. 1992) (deeming the phrase "actual costs" to be ambiguous); Hott v. Tillotson-Lewis Constr. Co., 682 P.2d 1220, 1223 (Colo. Ct. App. 1983) (finding the term "cost-plus" to be ambiguous).

Generic dictionary definitions also provide little assistance in resolving this ambiguity. The leading definition of "cost" is "the amount or equivalent paid or given or charged or engaged to be paid or given for anything bought or taken in barter or for service rendered." Webster's Third New Int'l Dictionary 515 (unabridged ed. 1993); see also Black's Law Dictionary 345 (6th ed. 1990) (defining "cost" as "expense," "price," and "[t]he sum or equivalent expended, paid or charged for something"). "Transport" is normally defined as "to transfer or convey from one person or place to another," and "transportation" is commonly thought to mean "an act, process, or instance of transporting or being transported." Webster's Third New Int'l Dictionary 2430 (unabridged ed. 1993); see also Black's Law Dictionary 1499 (6th ed. 1990) (defining "transport" as "[t]o carry or convey from one place to another," and "transportation" as "[t]he movement of goods or persons from one place to another, by a carrier"). It is not obvious whether IDC and COC – i.e., the returns that might have been achieved through alternative investments – constitute "amounts paid or given or charged" to "transfer or convey" something from one place to another. Given the uncertain meaning of the Garcias' lease, we reverse the district court's grant of summary judgment and remand this issue for additional proceedings.

Next we address FCB's lease contract, which does not contain the phrase "cost of transporting." Because FCB's lease does not address the deductibility of transportation expenses, our review of the contract is governed by Garman. Garman and its progeny establish that lessees may deduct reasonable "transportation costs," absent a lease provision to the contrary. See Rogers, 986 P.2d at 971, 975. Hence, under the Garman-Rogers rubric ARCO's IDC and COC are deductible if they (1) qualify as transportation costs, and (2) are reasonable. The definition of "transportation costs" is a question of law, while the reasonableness of any given transportation expense is a question of fact. Cf. Garman, 886 P.2d at 661 n.28 (remarking that the deductibility of certain post-production marketing costs is "a question of fact to be decided based on competent evidence in the record"); Rogers, 986 P.2d at 972 (echoing that "whether any specific post-production cost" is incurred to make a product marketable or to enhance its value is "to be determined by the fact-finder in each case").

We conclude that IDC and COC are, in fact, deductible unless the parties provide otherwise in the lease contract. No Colorado case directly addresses this issue. Nonetheless, at least two other sources of authority suggest that IDC and COC fall within the definition of "transportation costs" for purposes of royalty deductions. First, as the Colorado Supreme Court intimated in Garman, federal regulations governing deductions for post-production expenses are "instructive." 886 P.2d at 661 n.28. These regulations permit a "transportation allowance" based on the "reasonable actual costs" incurred by certain lessees. 30 C.F.R. § 206.157(b) (1998). As implemented by the Minerals Management Service (a bureau of the United States Department of the Interior), federal regulations allow ARCO to deduct IDC and COC when calculating royalties on government leases. Second, Colorado tax regulations enacted in 1996 allow "return on investment" and "return of investment" deductions for transportation equipment. Jt. App. at 2375-76, 2434-36, 2442. These regulations likewise suggest that IDC and COC constitute deductible expenses.

The writings of Professor Owen L. Anderson – upon which the defendants heavily rely in their appellate brief – also support ARCO's position. In a 1994 article, Professor Anderson opined that an oil and gas lessee often has "an incentive to overstate post-production costs in order to minimize its royalty-payment obligations," and that courts should "consider only reasonable and necessary costs, not to exceed actual direct costs, when determining the lessee's royalty obligation." Owen L. Anderson, Calculating Royalty: "Costs" Subsequent To Production – "Figures Don't Lie, But . . . .", 33 Washburn L.J. 591, 597 (1994). Professor Anderson thus concluded that in what are known as "wellhead value" jurisdictions, "a return on investment 'cost' should be eliminated from the work-back royalty calculation or – at the very least – be limited to a cost-of-money charge, such as the prime rate of interest." Id. at 637. In a forthcoming piece, however, Professor Anderson clarifies his 1994 article and states that a different rule should attach in "marketable product" jurisdictions such as Colorado:

> Because the lessee is unable to recover the royalty owner's costs up front, prior to the payment of royalty, the lessee must recover its capital costs of moving gas through depreciation. Accordingly, even in the absence of third-party financing, the operator incurs an indirect cost of money. . . . [T]he lessee should be ordinarily permitted to recover, against undepreciated capital, its reasonable cost-of-money when calculating freight in a marketable-product jurisdiction. . . . [I]n keeping with the general goal that a lessee should incur no loss or profit in moving gas, a reasonable cost-of-money charge should ordinarily be allowed even if the cost of building the system was not

> actually financed with borrowed money. The argument for a cost-of-money charge is that, by electing to construct a gathering or transportation system with its own cash, the lessee is unable to use this money elsewhere. Moreover, by recovering capital through depreciation over the life of production, such as would occur with unit-of-production depreciation, a cost-of-money charge against undepreciated capital merely reimburses the lessee for financing the royalty owner's proportionate share of moving costs. Based upon this . . . reasoning, the lessee would be permitted to deduct a reasonable cost-of-money charge against the undepreciated design, construction and start-up capital costs of a gathering or transportation system that is actually constructed.

Owen L. Anderson, Royalty Valuation: Calculating Freight in a Marketable-Product Jurisdiction, 20 Energy & Min. L. Inst. 331, 354-55 (2000). While Colorado tribunals obviously do not uncritically defer to Professor Anderson's views, the Rogers court adopted an argument advanced by Professor Anderson and rejected contrary positions taken by courts in Kansas and Oklahoma. See 986 P.2d at 972, 974-75 (citing Owen L. Anderson, Royalty Valuation: Should Royalty Obligations Be Determined Intrinsically, Theoretically, Or Realistically?, 37 Nat. Resources J. 611, 669, 646-47 & n.138 (1997)).[8]

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[8] The defendants also rely on Huddleston v. Grand County Board of Equalization, 913 P.2d 15 (Colo. 1996), but that decision does not address the dispositive issue in this case. Construing a mine tax valuation statute, the Huddleston court disallowed a deduction for a "margin allocation" that was admittedly "a hypothetical figure not representing direct costs." Id. at 18. At the outset, the court acknowledged that it was "dealing with a very different kind of property with its own taxation scheme under the constitution and statutes." Id. at 20. The court then determined that "[t]he history of the mine tax valuation system" demonstrated that "a hypothetical profit or margin allocation is not (continued...)

2. Depreciation

On this issue of first impression, we hold that ARCO's depreciation deduction cannot be based on Exxon's capital expenditures. The defendants' leases require ARCO to make royalty payments on all CO^2 from the SMU. Before ARCO pays the defendants' royalties, it is entitled to deduct reasonable transportation expenses. Simply because ARCO pays royalties on 100% of the CO^2 does not mean that ARCO shouldered 100% of the cost to construct the Pipeline to transport the gas to West Texas. As the district court acknowledged, the record indicates that ARCO may have contributed only 15% of the capital needed to build the SMU and the Pipeline. To permit ARCO to deduct expenses for capital contributions it never made would be both nonsensical and unfair. An extreme example illustrates the point. Suppose that ARCO and Exxon executed an agreement under which ARCO contributed $1 of the $285 million needed to construct the SMU and the Pipeline, and retained responsibility for paying royalties on 100% of the CO^2. Under ARCO's logic, the company would still be able to claim a substantial royalty deduction, even though it incurred virtually no costs to transport the gas. Nothing in the "work back" method requires such an

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[8](...continued)
deductible." Id. The court simply did not consider the deductibility of IDC and COC, let alone the deductibility of these expenses in the context of an oil and gas lease. In the words of the Colorado Supreme Court, "the law of oil and gas is unlike any other area." Davis v. Cramer, 808 P.2d 358, 359 (Colo. 1991).

indefensible result.

Practical considerations also support the conclusion that ARCO cannot use Exxon’s capital expenditures to reduce the defendants’ royalties. First, ARCO cannot use Exxon’s capital expenditures to obtain tax deductions. ARCO offers no objection to the following description of joint venture tax returns filed by the two companies: “These returns conform to . . . the 1981 AOP and the amendment thereto, including ARCO and Exxon’s tax partnerships. In these documents ARCO and Exxon receive credit for depreciation expense for the capital each provided to the venture. ARCO does not report a depreciation expense based on Exxon capital and vice versa.” Opening Brief of Koscove, FCB, and Garcias at 54. Second, to calculate their royalty dividends the defendants should not be forced to examine the financial reports of third parties like Exxon. That ARCO decided to execute an agreement with Exxon does not change the equation. Through the AOP, ARCO voluntarily conveyed to Exxon a 50% interest in CO^2 from the SMU. ARCO pays the defendants’ royalties, and Exxon reimburses ARCO for royalties paid on Exxon’s share of the gas. If Exxon were required to pay royalties to the defendants, it too could deduct its transportation expenses. But Exxon is not in privity with and has no direct royalty obligation to the defendants. Only ARCO bears that obligation, and the defendants should not be forced to audit the books of other companies to ascertain the amounts owed by

ARCO.

There is, however, yet another factual matter that must be remanded to the district court for consideration. ARCO contends that it "paid" for Exxon's unequal capital contribution by assigning 50% of the SMU CO^2 to Exxon under Article 3.1 of the AOP. Some evidence adduced by ARCO appears to support this argument. For instance, an Exxon division manager testified in his deposition that ARCO gave up a 50% interest in the CO^2 "in return for th[e] disproportionate investment being provided by Exxon." Jt. App. at 4761; see also Opening Brief of Koscove, FCB, and Garcias at 51 ("Defendants acknowledge that ARCO likely did not secure Exxon's disproportionate capital contribution without ARCO's concession of one-half of the SMU CO^2."). The district court should determine on remand (1) whether ARCO's assignment of 50% of the CO^2 is sufficiently analogous to a capital expenditure to permit a depreciation deduction; and (2) ARCO's total deductible contribution to the SMU and the Pipeline.

III. THE DEFENDANTS' PREJUDGMENT INTEREST

Well-worn principles govern our review of the district court's grant of prejudgment interest. "A federal court sitting in diversity applies state law, not federal law, regarding the issue of prejudgment interest." Chesapeake Operating, Inc. v. Valence Operating Co., 193 F.3d 1153, 1156 (10th Cir. 1999). An award of prejudgment interest "is generally subject to an abuse of discretion standard of review on appeal." Driver Music Co. v. Commercial Union Ins. Companies, 94 F.3d 1428, 1433 (10th Cir. 1996); accord Chesapeake Operating, 193 F.3d at 1156. That said, "any statutory interpretation or legal analysis underlying such an award is reviewed de novo." Driver Music, 94 F.3d at 1433.

A. Procedural history

The issue of prejudgment interest arose after the district court ruled that ARCO improperly deducted IDC and COC from the defendants' royalties. The parties stipulated that as a result of these deductions, ARCO withheld $988,909 from FCB and $687,556 from the Garcias. Applying Colorado Revised Statutes ("C.R.S.") § 5-12-102(1)(b), the court awarded prejudgment interest on these sums at an annually compounded rate of 8%. The court denied the defendants' request for moratory interest pursuant to C.R.S. § 5-12-102(1)(a). FCB and the Garcias appeal this ruling. The court also rejected ARCO's argument that prejudgment interest after July 1, 1990 should be governed by C.R.S. § 34-60-118.5. ARCO appeals this ruling.

B. C.R.S. § 34-60-118.5

ARCO contends that the district court should have applied § 34-60-118.5 of the Colorado Oil and Gas Conservation Act, not § 5-12-102, to determine the rate of prejudgment interest. Section 34-60-118.5 governs certain proceedings before the Colorado Oil and Gas Commission ("Commission"), see generally Grynberg v. Colorado Oil and Gas Conservation Comm'n, No. 98CA1928, 1999 WL 1243320, at *1-*3 (Colo. Ct. App. Dec. 23, 1999) (discussing the Commission's jurisdiction under the statute), and contains the following provision:

> If a payor does not make payment within the time frames specified in . . . this section and such delay in payment was not caused by any of the reasons specified in . . . this section, the payor shall pay such payee simple interest on the amount of the proceeds withheld, which interest shall be calculated from the date of each sale at a rate equal to two times the discount rate at the federal reserve bank of Kansas City as such rate existed on the first day of the calendar year or years in which proceeds were withheld.

C.R.S. § 34-60-118.5(4). The statute defines a "payee" as a person "legally entitled to payment from proceeds derived from the sale of oil, gas, or associated products from a well." C.R.S. § 34-60-118.5(1)(a). The definition of "payor" includes an operator who "has entered into an agreement under which" it "has accepted responsibility for making payment to payees." C.R.S. § 34-60-118.5(1)(b).

ARCO's argument is twofold. First, ARCO labels § 34-60-118.5 as a "specific" (rather than a "general") provision, and asserts that nothing in the statute "limits the interest rate on 'proceeds withheld' to Oil and Gas Commission proceedings." ARCO's Opening Brief at 63. Second, ARCO draws an analogy to Bulova Watch Co. v. United States, 365 U.S. 753 (1961). In that case a claimant recovered a judgment against the United States for "an overpayment of its excess profits taxes." Id. The claimant and the government disputed whether the provisions of 28 U.S.C. § 2411(a) or the provisions of § 3771(e) of the Internal Revenue Code governed the date from which interest accrued. The claimant asserted that § 2411(a) controlled because his judgment was entered by a court rather than an administrative body. The Supreme Court rejected the claimant's position, reasoning that the effect of the claimant's argument would make "the starting date of interest in such cases dependent upon the forum selected by the taxpayer. . . . [I]t is almost certain that Congress did not intend such an anomalous, nonuniform and discriminatory result." Id. at 757.

Neither of these arguments demonstrates that the district court's refusal to apply § 34-60-118.5 was erroneous. As in most jurisdictions, in Colorado "[i]t is a well-accepted principle of statutory construction that in the case of conflict, a more specific statute controls over a more general one." Delta Sales Yard v. Patten, 892 P.2d 297, 298 (Colo. 1995). But that general principle does not control the outcome of this case, because there is no inherent conflict between § 34-60-118.5 and § 5-12-102. By its terms, § 34-60-118.5 only governs enforcement proceedings before the Commission and is inapplicable to claims for breach of contract:

> Section 34-60-118.5 does not create an entitlement to proceeds; it presumes the existence of such an entitlement and imposes deadlines for the payment to those legally entitled to receive payment. The statute demonstrates the General Assembly's intent to grant to the

> Commission jurisdiction only over actions for the timely payment of proceeds and not over disputes with respect to the legal entitlement to proceeds under the terms of a specific royalty agreement.

Grynberg, 1999 WL 1243320, at *2. Indeed, through its amendment of the statute in 1998, the Colorado legislature clarified and reinforced its intent "to exclude the resolution of contractual disputes from the jurisdiction of the Commission." Id. at *3; see also C.R.S. § 34-60-118.5(5) (stating that the Commission "shall decline jurisdiction" over any "bona fide dispute over the interpretation of a contract for payment"). Unlike the claimant in Bulova, therefore, a Colorado litigant alleging a breach of an oil and gas royalty agreement cannot select among different fora. Instead, that litigant must assert his claim in a court of law, where § 5-12-102 establishes the rate of prejudgment interest. In addition, even if a litigant alleging a breach of an oil and gas agreement could choose between administrative and judicial tribunals, Bulova would not necessarily control. The law of oil and gas "is unlike any other area," see supra n.7, and the Supreme Court's construction of the Internal Revenue Code hardly limits the Colorado General Assembly's ability to prescribe different rates of prejudgment interest for different types of oil and gas proceedings.

C. Moratory interest

Moratory interest is governed by § 5-12-102(1). That statute "allows a court to award interest in 'an amount which fully recognizes the gain or benefit realized by the person withholding such money,' or at the statutory rate of eight percent per annum compounded annually." Ballow v. PHICO Ins. Co., 878 P.2d 672, 683 (Colo. 1994) (citations omitted); accord Northwest Cent. Pipeline Corp. v. JER Partnership, 943 F.2d 1219, 1229 (10th Cir. 1991).[9] Section 5-12-102(1) "recognizes the time value of money," and is intended to "discourage a person responsible for payment of a claim to stall and delay payment until judgment or settlement." Mesa Sand & Gravel Co. v. Landfill, Inc., 776 P.2d 362, 364 (Colo. 1989); see also Great Western Sugar Co. v. KN Energy, Inc., 778 P.2d 272, 274 (Colo. Ct. App. 1989) (indicating that the aim of the statute is to "correct the situation in which a wrongdoer would stall settlement or judgment in order to reap the benefit of having use of money or property which was producing more profit

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[9] Section 5-12-102(1) provides in full:

> (1) Except as provided in section 13-21-101, C.R.S., when there is no agreement as to the rate thereof, creditors shall receive interest as follows:
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> (a) When money or property has been wrongfully withheld, interest shall be an amount which fully recognizes the gain or benefit realized by the person withholding such money or property from the date of wrongful withholding to the date of payment or to the date judgment is entered, whichever first occurs; or, at the election of the claimant,
>
> (b) Interest shall be at the rate of eight percent per annum compounded annually for all moneys or the value of all property after they are wrongfully withheld or after they become due to the date of payment or to the date judgment is entered, whichever first occurs.

for him than the statutory interest rate he would eventually have to pay"). Colorado courts generally "apply a liberal construction to the statute" to achieve this purpose. Mesa Sand & Gravel, 776 P.2d at 365. Nevertheless, "in order to receive the higher interest rate, the claimant must specifically prove that the withholding party actually benefited in a greater amount." Northwest, 943 F.2d at 1229; see also Lowell Staats Mining Co. v. Pioneer Uravan, Inc., 878 F.2d 1259, 1270 (10th Cir. 1989) (stating that the statutory interest rate applies "in the absence of specific proof of the benefit derived by the defendant"); Davis Cattle Co. v. Great Western Sugar Co., 393 F. Supp. 1165, 1194 (D. Colo. 1975) (same), aff'd, 544 F.2d 436 (10th Cir. 1976). Accordingly, "a trial court faced with a record devoid of evidence relating to the amount of the withholding party's gain or benefit lacks discretion to award interest at a rate other than the statutory rate of 8% per annum." Chaparral Resources, Inc. v. Monsanto Co., 849 F.2d 1286, 1291 n.4 (10th Cir. 1988); accord Ballow, 878 P.2d at 683-84.

In the present case, the district court held that the defendants failed to show ARCO's return on wrongfully withheld royalties was greater than 8%. The defendants offered to prove that (1) ARCO "had the use of these underpayments of royalty in its own corporate treasury;" (2) the appropriate measure of ARCO's gain was its "return on equity" ("ROE"), or "the net income of the company divided by the average amount of equity;" and (3) ARCO's ROE for the period in question was approximately 16%. Jt. App. at 7182, 7183-86, 7292. The court concluded that § 5-12-102 required a "showing [of] what happened to the specific money withheld," and found that the defendants' proffered evidence did not address "what happened with this particular money." Id. at 7212. Because this evidence was "speculative" and there was "not sufficient tracing of the funds," the court applied § 5-12-102(1)(b). Id. at 7211, 7212.

The district court did not commit reversible error by refusing to award moratory interest. Section 5-12-102(1)(a) requires "specific proof" of the amount gained from withheld funds. See, e.g., Northwest, 943 F.2d at 1229; Lowell Staats, 878 F.2d at 1270; Davis Cattle, 393 F. Supp. at 1194. The defendants' return on equity calculation lacks the requisite specificity. As ARCO notes in its appellate brief, the values undergirding the calculation come from annual reports that

> are derived from consolidated balance sheets and cash flows for a wide range of different entities, both domestic and international. Those computations measure ARCO's overall performance on a consolidated basis for all its operations around the world and are based in part on investments made long before any additional royalties were withheld.

ARCO's Answer Brief In Response To Opening Brief Of Koscove, FCB and Garcias at 53 (citations omitted). The annual reports do not contain a ROE for the SMU, ARCO Permian (the ARCO division responsible for the SMU), or even ARCO's domestic oil and gas operations. Moreover, the value of the additional royalties owed is dwarfed by ARCO's net income, making it difficult to say with certainty what gain ARCO specifically derived by withholding those payments.

The defendants' arguments to the contrary are not compelling. The defendants maintain that the district court's ruling renders § 5-12-102(1)(a) "inapplicable to ARCO or virtually any company which wrongfully withholds another's money," because companies like ARCO could create "an effective defense against claims for moratory interest" simply by "co-mingling" funds with other corporate assets. Opening Brief Of Koscove, FCB, and Garcias at 61-62. This argument sidesteps the rule that § 5-12-102 requires a claimant to specifically prove the gain or benefit received by the offending party – whether that party is an individual or a corporation. The "specific proof" requirement has been in force at least since the Davis Cattle decision in 1975, and in the interim the Colorado legislature has declined to amend the statute. Perhaps for that reason, courts routinely deny requests for moratory interest pursuant to § 5-12-102. See, e.g., Northwest, 943 F.2d at 1229; Lowell Staats, 878 F.2d at 1270-71; Chaparral, 849 F.2d at 1291 & n.4; James v. Coors Brewing Co., 73 F. Supp. 2d 1250, 1256 (D. Colo. 1999); FDIC v. Clark, 768 F. Supp. 1402, 1414-15 (D. Colo. 1989); Ballow, 878 P.2d at 683-84. Indeed, over the last 25 years it appears that courts have approved awards of moratory interest in only two published opinions, neither of which is factually similar to the instant case. See Great Western Sugar, 778 P.2d at 273-75 (approving an award of moratory interest based on a three-part model designed to show the net profit resulting from the wrongful withholding of natural gas under a sales contract); Davis Cattle , 393 F. Supp. at 1194-95 (awarding moratory interest where the claimant demonstrated that the offending party "was able to leave $23-million of [its] credit line untapped" and save 11.5% in interest).

IV. THE DEFENDANTS' FRAUD COUNTERCLAIMS

A. Procedural history

Koscove and FCB each asserted counterclaims sounding in fraud.[10] In her claim for fraudulent concealment, Koscove alleged that ARCO "intentionally prepared and disseminated false accounting reports and correspondence" to hide improper deductions. Jt. App. at 186 (¶ 99). This concealment purportedly prevented Koscove from taking timely action against ARCO to recover the improper deductions and to "set a proper valuation for the gas." Id. (¶ 100). FCB alleged in its claim for fraud that the stubs on payment checks used by ARCO contained printed codes that "did not set forth the amounts that [ARCO] was deducting." Id. at 2222-26 (¶ 124(a)(1)). FCB further alleged that it made

[10] The Garcias also asserted a claim for fraud, but voluntarily dismissed it with prejudice.

repeated inquiries about the extent of ARCO's deductions, but ARCO either ignored these inquiries or provided misleading responses.

FCB's claim survived ARCO's initial motions to dismiss, but Koscove's did not. After the district court denied ARCO's first motion to dismiss as untimely, the company sought judgment on the pleadings under Federal Rule of Civil Procedure 12(c). The court granted ARCO's request for judgment on the pleadings, but permitted FCB and Koscove to re-plead their claims if they could allege "some detrimental reliance other than delay in pursing legal remedies." Jt. App. at 2087, 2100-01. In accordance with the court's instructions, FCB re-pleaded its claim. Koscove, who did not re-plead her claim, appeals the district court's original order of dismissal.

ARCO challenged FCB's re-pleaded fraud claim in two motions. The first was a motion for summary judgment, which the district court denied. As the scheduled trial date approached, ARCO filed a "Motion To Exclude Evidence Of Farm Credit's Alleged Fraud Damages." Id. at 3965. The court granted this motion, precipitating the dismissal of FCB's fraud claim. Id. at 5186, 6639, 6867. FCB appeals the grant of ARCO's motion to exclude.

B. Koscove's claim

A motion for judgment on the pleadings under Rule 12(c) is treated as a motion to dismiss under Rule 12(b)(6). Mock v. T.G. & Y. Stores Co., 971 F.2d

522, 528 (10th Cir. 1992). Our standard of review is therefore de novo. Realmonte v. Reeves, 169 F.3d 1280, 1283 (10th Cir. 1999). We uphold a dismissal under Rule 12(b)(6) "only when it appears that the plaintiff can prove no set of facts in support of the claims that would entitle the plaintiff to relief." Mock, 971 F.2d at 529 (quoting Jacobs, Visconsi & Jacobs Co. v. City of Lawrence, 927 F.2d 1111, 1115 (10th Cir. 1991)). We likewise "accept the well-pleaded allegations of the complaint as true and construe them in the light most favorable to the non-moving party." Realmonte, 169 F.3d at 1283; accord Mock, 971 F.2d at 529.

Even if we construe the allegations in her favor, Koscove's claim for fraudulent concealment is insufficient as a matter of law. Detrimental reliance is an essential element of a claim for fraudulent concealment. A plaintiff asserting such a claim must show

> (1) the concealment of a material existing fact that in equity and good conscience should be disclosed; (2) knowledge on the part of the party against whom the claim is asserted that such a fact is being concealed; (3) ignorance of that fact on the part of the one from whom the fact is concealed; (4) the intention that the concealment be acted upon; and (5) action on the concealment resulting in damages.

Ballow v. PHICO Ins. Co., 875 P.2d 1354, 1361 (Colo. 1993); see also Alzado v. Blinder, Robinson & Co., 752 P.2d 544, 558 (Colo. 1988) ("To claim damages from allegedly fraudulent statements, the plaintiff must establish detrimental reliance on the statements."). Here, Koscove concedes that she cannot plead detrimental reliance other than delay in filing suit. See Opening Brief Of Koscove, FCB and Garcias at 5, 42. Delay in filing suit, without more, does not satisfy the fifth element of a claim for fraudulent concealment – "action on the concealment resulting in damages." Koscove does not allege that her delay in filing suit permitted ARCO to successfully assert a statute of limitations defense. Nor does she allege that her delay caused any other form of damage. Because Koscove's fraudulent concealment claim contains no allegations of any injury, the district court properly dismissed it. Cf. Mills v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 703 F.2d 305, 308 (8th Cir. 1983) (finding that a plaintiff failed to establish detrimental reliance because he did not allege that he was "barred from filing suit" as a consequence of the defendant's conduct); Werman v. Malone, 750 F. Supp. 21, 23 (D. Me. 1990) (concluding that a plaintiff's bare-bones allegation that he "refrained from filing suit" as a result of the defendant's conduct was "insufficient as a matter of law to establish the element of detrimental reliance").[11]

C. FCB's claim

[11] Koscove's suggestion that she should be able to pursue a claim for fraudulent concealment in order to obtain punitive damages puts the cart before the horse. Under Colorado law "[a] claim for punitive damages is not a separate and distinct cause of action; rather, it is auxiliary to an underlying claim. An award of punitive damages can be entered only after awarding damages in conjunction with an underlying and successful claim for actual damages." Pulliam v. Dreiling, 839 P.2d 521, 524 (Colo. Ct. App. 1992).

The district court excluded evidence relating to FCB's fraud claim on two grounds. First, the court held that FCB inexcusably failed to include its theory of damages in the final pre-trial order. FCB initially alleged that, but for ARCO's fraudulent conduct, it would have taken its share of CO^2 from the SMU in kind. Unable to produce any evidence to support that theory, FCB later alleged that ARCO's fraudulent conduct prevented it from selling its "entire mineral interest." Jt. App. at 5165-66. FCB did not disclose or list witnesses for the latter theory in the pre-trial order. Second, the court concluded that FCB's newly alleged fraud damages were "too speculative to go to [a] jury." Id. at 5169. We review the court's rulings for an abuse of discretion. See Koch v. Koch Indus., Inc., 203 F.3d 1202, 1222 (10th Cir. 2000) ("This court reviews a district court's failure to amend a final pretrial order for an abuse of discretion."); Vining v. Enterprise Fin. Group, Inc., 148 F.3d 1206, 1217 (10th Cir. 1998) (stating that "the admission or exclusion of evidence" is reviewed "for abuse of discretion").

The district court's exclusion of FCB's alleged fraud damages was proper. The only argument advanced by FCB on appeal is that evidence of its damages "was available to ARCO" through the report of FCB's expert. Opening Brief Of Koscove, FCB and Garcias at 62-63. FCB cites no evidence in the record and no case law to support its assertion. Under these circumstances, the district court's refusal to amend the pre-trial order cannot be deemed an abuse of discretion. See

Koch, 203 F.3d at 1222 (explaining that a final pre-trial order "shall be modified only to prevent manifest injustice," and that "the burden of demonstrating manifest injustice falls upon the party moving for modification"). Similarly, FCB presents no argument on appeal concerning the district court's ruling that the proposed "mineral interest" damages were too speculative to go to a jury. FCB's failure to address this issue in its appellate brief constitutes a waiver. See Coleman v. B-G Maintenance Management of Colorado, Inc., 108 F.3d 1199, 1205 (10th Cir. 1997) ("Issues not raised in the opening brief are deemed abandoned or waived."); Phillips v. Calhoun, 956 F.2d 949, 953-54 (10th Cir. 1992) (observing that "[a] litigant who fails to press a point by supporting it with pertinent authority, or by showing why it is sound despite a lack of supporting authority or in the face of contrary authority, forfeits the point") (citation omitted).

V. THE DEFENDANTS' BREACH OF FIDUCIARY DUTY COUNTERCLAIMS

A. Procedural history

FCB, Koscove, and the Garcias asserted counterclaims against ARCO for breach of fiduciary duty. The defendants alleged that ARCO, as the operator of the SMU, breached a fiduciary duty "[b]y selling and using the gas at less than fair market value" and "by wrongfully deducting . . . post-production costs and expenses without disclosure." Jt. App. at 185 (¶ 96). The defendants averred that they "d[id] not have access to the records and information" maintained by ARCO, and that ARCO occupied "a position of superiority" with respect to this revenue and royalty information. Id. at 146 (¶ 104). The defendants reiterated their allegation that ARCO brushed aside "repeated demands for an accounting and for proper payment of royalty owed." Id. (¶ 109).

As it did with FCB's re-pleaded fraud claim, ARCO challenged the defendants' breach of fiduciary duty claims in two motions. After an unsuccessful attempt to secure judgment on the pleadings, ARCO filed a motion for summary judgment. The court granted the summary judgment motion, concluding that relationship between ARCO and the defendants involved "no fiduciary duty" under Colorado law. Id. at 3793. Each of the three defendants appeals this ruling, which we review de novo. See King of the Mountain Sports, 185 F.3d at 1089; Lopez, 172 F.3d at 759.

B. ARCO's alleged duty

Prior decisions from Colorado and this circuit strongly suggest that a lessee-lessor relationship, even if it encompasses the operation of an oil and gas unit, does not automatically create fiduciary responsibilities. Cases dealing with "overriding" royalty owners are illustrative. For example, the court in Degenhart v. Gold King Petroleum Corp., 851 P.2d 304 (Colo. Ct. App. 1993) commented that "[o]rdinarily, the mere reserving of an overriding royalty in the assignment of an oil and gas lease does not create a confidential or fiduciary relationship." Id. at 306; see also id. (stressing that the record in the case was "devoid of any evidence indicating any personal or other special relationship between plaintiffs and defendant which could support the existence of a confidential or fiduciary relationship"). The Colorado Supreme Court expressly endorsed this portion of the Degenhart opinion in Garman. See 886 P.2d at 659 n.23 (stating that the Degenhart court "correctly explained the reservation of an overriding royalty interest does not create a confidential or fiduciary relationship"). Furthermore, at least one case from this circuit indicates that a lessee who serves as a unit operator generally owes lessors only a duty of good faith, not a fiduciary duty:

> [A]lthough the lessee's duty of good faith requires that it take the lessor's interest into account in exercising its powers under the unitization clause, the lessee need not subordinate its interest entirely to those of the lessor. Thus, although the lessee's good faith duty has at times been referred to as fiduciary, such standard is altogether too strict.

Amoco Prod. Co. v. Heimann, 904 F.2d 1405, 1412 (10th Cir. 1990) (citations omitted). In view of these precedents, we predict that the Colorado Supreme Court would not categorize as fiduciary all lessee-lessor relationships involving unitization agreements.[12]

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[12] In the same vein, it is unlikely that the Colorado Supreme Court would (continued...)

However, that a fiduciary duty does not necessarily arise from a lessee-lessor relationship does not mean a fiduciary duty never arises from such a relationship. Colorado courts recognize that a variety of relationships can create fiduciary responsibilities under certain circumstances, even if those relationships are not fiduciary per se. See, e.g., Paine, Webber, Jackson & Curtis, Inc. v. Adams, 718 P.2d 508, 517-18 (Colo. 1986) (declining to "adopt a rule that a stockbroker/customer relationship is, per se, fiduciary in nature," and holding that the existence of any fiduciary obligations turns on "proof of circumstances"); Bohrer v. DeHart, 943 P.2d 1220, 1225 (Colo. Ct. App. 1996) (remarking that a clergy-parishioner relationship "may be fiduciary in nature," depending on the facts of the case); Dolton v. Capitol Fed. Sav. and Loan Ass'n, 642 P.2d 21, 23 (Colo. Ct. App. 1981) ("While there is no per se fiduciary relationship between a borrower and lender, a fiduciary duty may arise from a business or confidential relationship . . . ."). These cases demonstrate that "the existence of a fiduciary or confidential relationship is generally a question of fact for the jury." Elk River

[12](...continued)
follow Leck v. Continental Oil Co., 800 P.2d 224 (Okla. 1989). Leck generally recognizes "the existence of a fiduciary duty owed by a unit to the royalty owners and lessees who are parties to the unitization agreement or subject to the order creating the unit." Id. at 229. As one commentator has observed, "[m]ost jurisdictions other than Oklahoma have rejected the notion that there is a fiduciary obligation owed by [an] operator absent special circumstances." Gary W. Catron, The Operator's 'Fiduciary' Duty To Royalty And Working Interest Owners, 64 Okla. Bar J. 2763 (1993).

Associates v. Huskin, 691 P.2d 1148, 1152 (Colo. Ct. App. 1984); see also Winkler v. Rocky Mountain Conference of the United Methodist Church, 923 P.2d 152, 157 (Colo. Ct. App. 1995) ("Whether a fiduciary relationship exists is a question of fact to be resolved by the jury.").

Applying these authorities to the case at hand, we conclude the district court erred when it entered summary judgment as a matter of law on the defendants' fiduciary duty claims. The district court granted ARCO's motion for summary judgment based on Degenhart and Garman. Our review of the facts asserted by the parties convinces us there are material facts at issue and we remand the case for further factual development of this issue. The proceedings on remand should take into account Colorado's definition of a "fiduciary": "a person having a duty, created by his undertaking, to act primarily for the benefit of another in matters connected with the undertaking." Destefano v. Grabrian, 763 P.2d 275, 284 (Colo. 1988). Further proceedings should also take into account Colorado's operative definition of a "fiduciary relationship":

> A fiduciary relationship exists when one person is under a duty to act for or to give advice for the benefit of another upon matters within the scope of their relationship. A fiduciary relationship can arise when one party occupies a superior position relative to another. It may be based upon a professional, business, or personal relationship.

Johnston v. CIGNA Corp., 916 P.2d 643, 646 (Colo. Ct. App. 1996); see also Winkler, 923 P.2d at 157 (citing the Restatement (Second) of Torts § 874 (1979) for an identical proposition); Dolton, 642 P.2d at 23 (indicating that "a fiduciary duty may arise from a business or confidential relationship which impels or induces one party 'to relax the care and vigilance it would and should have ordinarily exercised in dealing with a stranger'") (citation omitted).

VI. THE DEFENDANTS' FAIR MARKET VALUE COUNTERCLAIMS

Our review of the defendants' fair market value counterclaims is controlled by Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993) and Kumho Tire Co., Ltd. v. Carmichael, 119 S. Ct. 1167 (1999). Daubert requires a trial judge to "ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable." 509 U.S. at 589. This inquiry is "a flexible one," not governed by "a definitive checklist or test." Id. at 593, 594. Potentially pertinent factors include whether the expert's theory or technique (1) "can be (and has been) tested," id. at 593; (2) "has been subjected to peer review and publication," id.; (3) has a "known or potential rate of error" with "standards controlling the technique's operation," id. at 594; and (4) enjoys "widespread acceptance" in the relevant scientific community. Id. Kumho Tire establishes that the "gatekeeping" requirement set forth in Daubert "applies not only to testimony based on 'scientific' knowledge, but also to testimony based on 'technical' and 'other specialized' knowledge." 119 S. Ct. at 1171 (citation omitted). The objective of that requirement "is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." Id. at 1176.

Kumho Tire also establishes that "a court of appeals is to apply an abuse-of-discretion standard when it 'review[s] a trial court's decision to admit or exclude expert testimony.'" Id. (quoting General Elec. Co. v. Joiner, 522 U.S. 136, 138-39 (1997)); accord Summers v. Missouri Pacific R.R. Sys., 132 F.3d 599, 603 (10th Cir. 1997). This standard "applies as much to the trial court's decisions about how to determine reliability as to its ultimate conclusion." Kumho Tire, 119 S. Ct. at 1176. As a general matter, a district court abuses its discretion "when it renders 'an arbitrary, capricious, whimsical, or manifestly unreasonable judgment.'" Copier v. Smith & Wesson Corp., 138 F.3d 833, 838 (10th Cir. 1998) (quoting FDIC v. Oldenburg, 34 F.3d 1529, 1555 (10th Cir. 1994)). Put another way, under the abuse of discretion standard "a trial court's decision will not be disturbed unless [we have] a definite and firm conviction that the [trial] court has made a clear error of judgment or exceeded the bounds of permissible choice in the circumstances." Beaird v. Seagate Tech., Inc., 145 F.3d 1159, 1164 (10th Cir.) (citation omitted), cert. denied, 119 S. Ct. 617 (1998).

A. Procedural history

The defendants' fair market value counterclaims rested in large part on the testimony of their expert witness, economist James Smith. ARCO filed a motion in limine to preclude Smith from testifying, arguing that Smith's opinions were speculative, based on unsupported hypotheses, and unreliable. At a hearing the court advised the defendants that it would allow Smith to render opinions based on "actual sales" of CO^2, but it was "not going to permit him to make assumptions and projections and hypotheticals that conflict with the actual data." Jt. App. at 5173. The defendants informed the court that an important component of Smith's analysis was that there was neither a competitive market for nor "reliable actual sales" of CO^2 in West Texas. Id. at 5175. According to Smith, actual prices did not reflect the true market value of the gas "because of the vertical integration of the buyers and the sellers of CO^2 and . . . because there were no arms' length transactions." Id.

Before ruling on ARCO's motion in limine, the district court held an in camera evidentiary hearing. Smith testified at the hearing and was subject to cross-examination. After listening to Smith's testimony and reviewing the papers submitted by the parties, the court concluded that Smith "disregarded the actual sales data of carbon dioxide gas in West Texas" and "failed to look to comparable sales of CO^2 in other markets." Id. at 6583. The court thus excluded Smith's proposed testimony, holding that Smith could only discuss "what the market conditions actually are in West Texas and what the comparables are." Id. at 6584. The defendants appeal this ruling. Because the defendants could not present a prima facie case without Smith's testimony, the court dismissed their claims for fair market value.

B. Smith's theory of valuation

The valuation theory in Smith's expert report proceeds along the following lines. Smith's initial premise is that "a high percentage" of the CO^2 from the SMU "is never sold." Id. at 4855. Instead, "it is supplied in-kind by Exxon and Arco to satisfy their own needs as working interest owners in various West Texas EOR projects." Id. (footnote omitted). While ARCO "planned from the beginning to sell some amount of its gas to outsiders," those projected sales "have been small relative to Arco's own use." Id. at 4856. Smith estimates that only about 14% of ARCO's SMU production has been "available over the life of the field to support third-party sales," and that in recent years ARCO sold less than 5% of the gas. Id.

According to Smith, ARCO and Exxon "are not alone in producing carbon dioxide primarily to meet their own needs." Id. Smith notes that the industry is "vertically integrated," id., since the same firms that produce CO^2 also consume much of what they produce:

> The six principal suppliers of carbon dioxide (i.e., Shell, Mobil, Amoco, Arco, Exxon, and Amerada Hess) also collectively operate

> two-thirds of all the carbon dioxide injection wells located in the Permian Basin of West Texas. But that does not represent the full extent of their needs for carbon dioxide, since all of these firms hold additional working interests in, and supply carbon dioxide to, injection wells that are operated by other firms. Although the resulting transfers of carbon dioxide from upstream entities to downstream affiliates may be referred to as "intradivisional sales," they do not constitute arms-length transactions where the separate and opposing interests of buyer and seller would establish a fair market value.

Id. (footnotes omitted). As a result, "most of the carbon dioxide moves within, not between, firms, and therefore the market price is not observed." Id.

Against this backdrop, Smith avers that "third-party sales of carbon dioxide in West Texas" do not provide "a reliable indicator of fair market value." Id. at 4857. Because ARCO supplies CO^2 in kind to satisfy its own needs, "the company's interest in obtaining a high price (as seller) is nullified by an offsetting interest in obtaining a low price (as buyer)." Id. Taking into account "the impact on royalties and taxes," Smith concludes that "Arco gains on balance whenever the price of carbon dioxide is reduced." Id. In other words, "[g]iven the incentives that are created by the vertically integrated structure of this industry, there is no assurance that the price favored by Arco would correspond to the fair market value of the gas. Indeed, Arco gains by establishing a price that is below fair market value." Id.; see also id. ("The fact that Arco also sells some of its carbon dioxide to third parties does not change the conclusion that the company comes out ahead if prices are held below fair market value.").

Smith then turns his attention to the actual market value of CO^2 from the SMU. Smith states that he is unaware of "any other market where carbon dioxide is sold at prices that would provide an accurate benchmark for estimating the fair market value." Id. at 4861. Smith reasons that the value of CO^2 from the SMU

> derives from its usefulness in recovering enhanced oil reserves in West Texas. Relatively few projects of this type are located anywhere else – more than 80% of the carbon dioxide injection wells that exist in the world are located in the Permian Basin area of West Texas. Moreover, the West Texas fields that receive carbon dioxide from Sheep Mountain are the best prospects for this particular technology and give better results with greater recovery of enhanced oil reserves than the carbon dioxide-based EOR projects located elsewhere.

Id. (footnotes omitted). Thus, "even if arms-length prices were available from other geographic areas or other markets, the amount that purchasers would be willing to pay for use of carbon dioxide in those applications would understate the value" of CO^2 that is shipped from the SMU to West Texas. Id.

Because no "direct indicator" of fair market value is available, Smith focuses on "indirect indicators" of what CO^2 "would sell for in West Texas if the market were perfectly competitive and characterized by truly arms-length transactions." Id. Smith acknowledges that "this approach involves a hypothetical situation, and the price that would result can only be estimated, not observed." Id. Nonetheless, says Smith, the economic theory of "profit maximization" provides "a clear prediction regarding the price that would emerge under such conditions, and clear directions on how to estimate that price." Id. In a nutshell, profit maximization theory "predicts that, in equilibrium, the price paid by firms to purchase the carbon dioxide will equal the net economic benefit which that carbon dioxide generates in use." Id. Using this approach, Smith estimates the true market value of CO^2 from the SMU from 1983 through 1996, ranging from a high of $3.38 per thousand cubic feet ("mcf") in 1983 to a low of $1.15 per mcf in 1986 and 1988. Id. at 5562. [13]

C. Basis for exclusion

The district court did not abuse its discretion by excluding Smith's testimony. The court initially examined some of the factors listed in Daubert, and found that (1) Smith's opinions were formed specifically for this litigation; (2) Smith had not employed the profit maximization theory on previous occasions to

[13] At the in camera evidentiary hearing, Smith's testimony on direct examination closely followed the statements in his expert report. Smith reiterated that the industry was "vertically integrated" and that the market for CO^2 was not competitive. Jt. App. at 5212. Smith likewise testified that sales to third parties and other market indicators did not reflect "the actual fair market value of the CO^2." Id. at 5213. Smith emphasized that "over 80 percent of the CO^2 production wells in the world are located in West Texas" and that other CO^2 projects are "widely scattered" and "mostly in foreign countries." Id. at 5214. Smith repeated that the market lacks "arms length" transactions, and that suppliers such as ARCO have "a clear interest and profit in setting the price of the CO^2 below the fair market value." Id. at 5216. Smith also discussed the "underlying assumption" of the profit maximization theory – that "management is driven by the objective to maximize profits for the firm." Id. at 5228. Smith revised his estimate of outside sales, stating that ARCO sold 22% of its SMU CO^2 to third parties from 1983 to 1996.

determine the value of CO^2; and (3) Smith's opinions had not been published or subjected to peer review in scholarly journals. There is evidence in the record to support all of these findings. The court then concluded that Smith's analysis disregarded or failed to account for (1) the prices actually received by certain CO^2 suppliers in West Texas, and (2) the prices actually received by CO^2 suppliers in comparable markets. As discussed below, neither of these findings "exceeded the bounds of permissible choice in the circumstances."

The defendants offered Smith's testimony as a means of determining the "market value" to which their lease contracts referred. "Market value" represents "the price that would be paid by a willing buyer to a willing seller in a free market." 3 Eugene Kuntz, Treatise on the Law of Oil and Gas § 40.4, at 329 (1989); see also Black's Law Dictionary 597 (6th ed. 1990) (defining "fair market value" as "[t]he amount at which property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of the relevant facts"); Rhodes v. Amoco Oil Co., 143 F.3d 1369, 1373 n.4 (10th Cir. 1998) (same). That being the case, when a lessee sells gas in an open and competitive market,

> the price derived from such sale should establish the market price and market value of the gas. If however, the lessee is a corporate affiliate of the purchaser and the sale is not at an arm's length, the sale price will not be accepted as representing the market price or market value. Nor will sales on a market which is dominated by a few producers and purchasers establish an acceptable market price of

gas.

3 Eugene Kuntz, Treatise on the Law of Oil and Gas § 40.4, at 332 (1989) (footnotes omitted);[14] cf. United States v. 79.95 Acres of Land, 459 F.2d 185, 187 (10th Cir. 1972) (recognizing in a condemnation proceeding that a transaction that is not conducted at arm's length "is not evidence of fair market value"). If a competitive market does not exist at the well, there is "general agreement" that market value "can be determined from comparable sales of gas," and that "comparable sales are those that are comparable in time, quality, quantity, and availability of marketing outlets." 3 Eugene Kuntz, Treatise on the Law of Oil and Gas § 40.4, at 335 (1989). As a corollary,

> [i]f the market value cannot be established by proof of comparable sales, then the actual value or intrinsic value of the gas can be shown. The burden is on the lessor to prove that there is no market and to prove the reasonable value of the gas. . . . In proving the actual value of the gas, the lessor is not limited to proof of the market value at a distant market less the expense of transportation, but the lessor may also prove such value by proof of other factors

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[14] While this section of the Kuntz treatise uses "market value" and "market price" interchangeably, the two terms are not always synonymous:

> Market price is the price that is actually paid by buyers for the same commodity in the same market. It is not necessarily the same as 'market value' or 'fair market value' or 'reasonable worth'. Price can only be proved by actual transactions. Value or worth, which is often resorted to when there is no market price provable, may be a matter of opinion.

Shamrock Oil & Gas Corp. v. Coffee, 140 F.2d 409, 410-11 (5th Cir. 1944).

> and by the "opinion of competent persons having knowledge of the facts, whether expert or not."

Id. § 40.4, at 337 (footnotes and citation omitted); see also Weymouth v. Colorado Interstate Gas Co., 367 F.2d 84, 88 (5th Cir. 1966) (stating that market value "may be established by expert opinion" or by "[e]vidence of sales of comparable properties") (citation omitted).

While expert testimony based on hypothesis can (and sometimes must) be used to establish market value, courts tend to prefer evidence derived from actual sales. For instance, in Ashland Oil, Inc. v. Phillips Petroleum Co., 554 F.2d 381 (10th Cir. 1975), we intimated that "comparable sales or current market price is the best" and "by far the preferable method" for determining value. Id. at 387; see also id. (commenting that the expert testimony presented in the case, "[n]o matter how interesting" as a matter of theory, was "only opinion evidence" and did not "establish facts"); cf. Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 242 (1993) ("Expert testimony is useful as a guide to interpreting market facts, but it is not a substitute for them."). Accordingly, even if the relevant market is not perfectly competitive, "it still makes better sense to begin with the collective judgment expressed in the market price" than to start with "a wholly subjective pronouncement of worth." Campbell v. United States, 661 F.2d 209, 221 (Ct. Cl. 1981). By the same token, when determining market value "[c]ompletely comparable sales are not likely to be found" and "[s]ales that have some different characteristics must be considered." Piney Woods Country Life Sch. v. Shell Oil Co., 726 F.2d 225, 239 (5th Cir. 1984); see also id. (suggesting that a court "should not dismiss fairly comparable sales out of hand because of certain incomparable qualities").

Judged by these standards, the district court's conclusion that Smith strayed too far from the available sales data cannot be described as "manifestly unreasonable." For example, the prices received by ARCO from several CO^2 sales in the early 1980s conceivably could serve as the basis for a "market value" calculation. The record indicates that between 1982 and 1984, ARCO made several sales to "working interest" owners in West Texas who were not CO^2 suppliers. The defendants do not contest that during this time ARCO sold or delivered approximately 55% of its CO^2 to third parties. The record also indicates that between 1983 and 1989 ARCO sold or delivered an average of 37% of its CO^2 to third parties. In light of this evidence, it was not "arbitrary, capricious, or whimsical" for the district court to conclude that, at least during the early 1980s, ARCO's purported incentive to depress CO^2 prices was substantially blunted.

Moreover, the district court's conclusion that Smith unjustifiably disregarded sales data from all CO^2 markets outside of West Texas falls short of an abuse of discretion. The district court received testimony that the Oil and Gas Journal publishes a list of all EOR projects in the United States and around the world. This testimony revealed the existence of EOR projects that use CO^2 in north Texas, Colorado, Wyoming, Oklahoma, Louisiana, Mississippi, and Canada. Smith admittedly did not use sales data from any of these markets when estimating the fair market value of CO^2 from the SMU. Smith also admitted that he did not attempt to determine whether these markets were competitive or characterized by arm's length transactions. Smith opted not to do so because he believed "the economic benefits that would be generated by the use of CO^2" in other markets "would not be comparable to the West Texas productivity." Jt. App. at 5280. But the only evidence cited by Smith to establish that other markets were wholly uncomparable was the response of an ARCO witness to the following deposition question: "Q: Where are the fields that are most susceptible to the use of CO^2 located? A: Located in the Permian Basin in West Texas." Id. at 5557.[15] It is difficult to quarrel with the district court's judgment that this abbreviated response was "a far cry from saying that West Texas is unique and

[15] Smith also claimed that he had "seen this statement in various forms in various documents." Jt. App. at 5283. That may be true, but none of those documents have been submitted by the defendants on appeal. The only evidence highlighted by the defendants is (1) a statement by an ARCO witness that he would not look to other geographical markets in order to formulate a bid for a CO^2 supply contract in West Texas ; and (2) a statement by another ARCO witness that he would not value an in kind delivery for a specific EOR in West Texas by looking to another state. These statements do not directly address the issue faced by the district court, and even if they did, they hardly constitute overwhelming proof that all forms of comparison between West Texas and other markets are invalid.

that other markets should not be considered, as the court in Piney Woods indicates." Id. at 6582.

Suffice it to say that our standard of review plays a major role in the disposition of this issue. Whether the existence of other markets and the sales data presented by ARCO fatally undermine Smith's theory is eminently debatable. If our review were de novo, we might very well conclude that Smith's theory explains or otherwise accounts for these markets and data. When we apply an abuse of discretion standard, however, "we defer to the trial court's judgment because of its first-hand ability to view the witness or evidence and assess credibility and probative value." Towerridge, Inc. v. T.A.O., Inc., 111 F.3d 758, 763 (10th Cir. 1997) (quoting Moothart v. Bell, 21 F.3d 1499, 1504 (10th Cir. 1994)). With that standard in mind, we affirm the district court's exclusion of Smith's testimony.

VII. ARCO'S STATUTE OF LIMITATIONS DEFENSE

A. Procedural history

The final issue for review has a brief procedural history. In a motion for judgment as a matter of law, ARCO asserted a statute of limitations defense against some of the Garcias' counterclaims. Citing C.R.S. § 13-80-109, the district court held that the counterclaims were timely because they (1) "arose out of the same transaction that is the subject matter of ARCO's declaratory judgment claim;" and (2) "were filed within one year after ARCO initiated" its claim for declaratory relief. Jt. App. at 3735. ARCO appeals this ruling, which we review de novo. See King of the Mountain Sports, 185 F.3d at 1089.

B. C.R.S. § 13-80-109

The focal point of the parties' arguments on appeal is § 13-80-109. That statute states in full:

> Except for causes of action arising out of the transaction or occurrence which is the subject matter of the opposing party's claim, the limitation provisions of this article shall apply to the case of any debt, contract, obligation, injury, or liability alleged by a defending party as a counterclaim or setoff. A counterclaim or setoff arising out of the transaction or occurrence which is the subject matter of the opposing party's claim shall be commenced within one year after service of the complaint by the opposing party and not thereafter.

As interpreted by the Colorado courts, this provision "makes it clear that its purpose is to allow a party against whom a claim has initially been asserted to plead a stale claim only in response to the claim asserted against that party and only if it arises out of the same transaction or occurrence, or the same series thereof." Duell v. United Bank of Pueblo, 892 P.2d 336, 340-41 (Colo. Ct. App. 1994); see also id. at 343 (stating that the statute brings Colorado "into line" with "the majority of jurisdictions which allow the use of stale claims defensively") (Tursi, J., concurring).

We reject at the outset ARCO's proposed construction of § 13-80-109.

ARCO principally contends that (1) § 13-80-109 "says nothing about reviving all claims which were time-barred when the complaint was filed," unlike specific revival statutes in other jurisdictions, ARCO's Opening Brief at 52-53; and (2) interpreting § 13-80-109 as a "revival" provision would be inconsistent with the statute's legislative history, as well as the purpose of declaratory judgment actions. These arguments cannot be squared with the statement in Duell that § 13-80-109 permits a defending party "to plead a stale claim." 892 P.2d at 340-41. "Although we are not required to follow the dictates of an intermediate state appellate court, we may view such a decision as persuasive as to how the state supreme court might rule." Sellers v. Allstate Ins. Co., 82 F.3d 350, 352 (10th Cir. 1996) ; see also Lowell Staats, 878 F.2d at 1269 ("In the absence of a state supreme court ruling, a federal court must follow an intermediate state court decision unless other authority convinces the federal court that the state supreme court would decide otherwise."). Without any direct authority to the contrary, we view Duell as persuasive.

Even so, the district court erred when it applied § 13-80-109 to the Garcias' counterclaims. To trigger the statute, one party must seek relief against a "defending party." That did not happen in this case. In its declaratory judgment action, ARCO asserted no claim against the Garcias. Because the Garcias were not named as defendants, ARCO was not obligated to serve them. The Garcias essentially named themselves as defendants in 1997, when they sought and received permission to intervene. By that time, however, well over a year had elapsed since ARCO filed its claim for declaratory relief in 1995. By leaving the Garcias out of its complaint, ARCO eliminated the risk that it would be exposed to defensive counterclaims that otherwise would have been barred by the statute of limitations. By the Garcias' reasoning, a party who previously sat on its hands could automatically revive a "stale" claim arising out of a common transaction or occurrence by seeking and obtaining leave to intervene as a defendant. That stretches the language of § 13-80-109 too far. Consequently, we vacate the district court's ruling and remand the case to determine whether the Garcias' claims are in fact barred by the applicable statute(s) of limitation.[16]

VIII. CONCLUSION

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[16] The Garcias suggest that ARCO waived its statute of limitations defense by failing to object to their motion to intervene, but cite no authority to support their position. A limitations defense "is generally waived unless it is raised in the defendant's responsive pleading." Expertise, Inc. v. Aetna Fin. Co., 810 F.2d 968, 973 (10th Cir. 1987); see also Venters v. City of Delphi, 123 F.3d 956, 967 (7th Cir. 1997) ("Federal Rule of Civil Procedure 8(c) requires a defendant to plead a statute of limitations defense and any other affirmative defense in his answer to the complaint."). ARCO raised the defense in its answer. The Garcias also suggest that as intervenors they had "the same power as the original parties." Response Brief of FCB and Garcias at 55 (citation omitted). Even if that is true, it does not demonstrate that the Garcias were entitled retroactively to name themselves as "defending parties" and invoke § 13-80-109.

Our ruling today is necessarily multifaceted.

1. We REVERSE the district court's ruling that FCB's lease unambiguously permits ARCO to deduct transportation expenses, and REMAND this issue for additional proceedings. On remand the district court should determine what extrinsic evidence, if any, is relevant and admissible for the purpose of clarifying the meaning of the Gas Pricing provision in FCB's contract.

2. We AFFIRM the district court's ruling that FCB's lease permits ARCO to use a weighted average price under the third subsection of the Gas Pricing provision, but REVERSE the district court's ruling that the same provision permits ARCO to use amounts received by Exxon to calculate the weighted average price.

3. We REVERSE the district court's ruling that the phrase "cost of transporting" in the Garcias' lease unambiguously excludes IDC and COC, and REMAND this issue for additional proceedings. On remand the district court should again determine what extrinsic evidence, if any, is relevant and admissible for the purpose of clarifying the meaning of the phrase "cost of transporting" as it appears in the Garcias' contract.

4. As regards FCB's lease which was silent as to transportation costs, we REVERSE the district court's ruling that IDC and COC do not constitute "transportation costs" under Garman and its progeny. Unless the parties intended

something to the contrary in their contracts, IDC and COC are "transportation costs" under Garman and its progeny. If the district court or a jury determines on remand that FCB's lease permits ARCO to deduct transportation expenses, then IDC and COC should be included in the calculation.

5. We REVERSE the district court's ruling permitting ARCO to deduct depreciation expenses based on Exxon's capital expenditures, and REMAND this issue to determine the amount ARCO actually contributed toward the development of the SMU and the Pipeline.

6. We AFFIRM the district court's ruling that C.R.S. § 5-12-102(1)(b), rather than C.R.S. § 34-60-118.5, governs the rate of prejudgment interest. If the district court or a jury determines on remand that the leases executed by FCB and the Garcias permit ARCO to deduct IDC and COC, this issue will become moot.

7. We AFFIRM the district court's ruling that the defendants failed to specifically prove their entitlement to moratory interest.

8. We AFFIRM the district court's ruling that Koscove failed to plead the element of detrimental reliance and thus failed to state a claim for fraudulent concealment.

9. We AFFIRM the district court's ruling that FCB failed to present or preserve a viable damages theory in support of its claim for fraud.

10. We REVERSE the district court's ruling that the defendants' breach of

fiduciary duty counterclaims are insufficient as a matter of law and REMAND for further proceedings.

11. We AFFIRM the district court's ruling excluding the testimony of the defendants' expert, Dr. James Smith.

12. We REVERSE the district court's ruling that C.R.S. § 13-80-109 applies to the Garcias' counterclaims, and REMAND this issue to determine whether the Garcias' claims are barred by the applicable statute(s) of limitation.