

United States Court of Appeals
For the Eighth Circuit

No. 15-3458

Robbie Hill; Gwenna Hill; Joseph Smith; Catherine Smith; Kathy L. Hamilton;
Jerry Van Wormer; Randy Palmer; Joyce Palmer; Larry King; Margaret King;
Adam Kofoid; Bradley Hooper; Crystal Hooper; Corey Warden; Julie Warden

Plaintiffs

Dale Stroud; Kari Stroud

Plaintiffs - Appellants

v.

Southwestern Energy Company

Defendant - Appellee

Chesapeake Energy; XTO Energy, Inc.

Defendants

SEECO, Inc.

Defendant - Appellee

Appeal from United States District Court
for the Eastern District of Arkansas - Little Rock

Submitted: December 14, 2016
Filed: May 22, 2017

Before WOLLMAN, SMITH¹, and BENTON, Circuit Judges.

BENTON, Circuit Judge.

Southwestern Energy Co. disposed of fracking waste near the property of R. Dale and Kari B. Stroud after they refused to lease their property to SWE. The Strouds sued, claiming SWE's waste migrated onto their property. The district court granted SWE's motion for summary judgment based on the insufficiency of the Strouds' proof. Having jurisdiction under 28 U.S.C. § 1291, this court reverses and remands.

I.

The facts are “viewed in the light most favorable to the [Strouds].” *See Torgerson v. City of Rochester*, 643 F.3d 1031, 1042 (8th Cir. 2011) (en banc). SWE extracts natural gas through hydraulic fracturing, breaking open natural rock formations and extracting the natural gas. As part of those operations, SWE must dispose of chemical-containing waste water.

On the Strouds' property is an exhausted and plugged production well. In 2009, an SWE representative (a “landman”) approached Dale about disposing of fracking waste on their property. Negotiations were unsuccessful. SWE leased the right to dispose of its fracking waste through a well on neighboring property.

¹The Honorable Lavenski R. Smith became Chief Judge of the United States Court of Appeals for the Eighth Circuit on March 11, 2017.

According to Stroud's affidavit, the landman later told him he had been greedy and that SWE would "use the well on [the neighbor's] property to fill up the empty gas space under [the Strouds'] property since it was all connected."

The well SWE drilled—the "Campbell well"—is 180.3 feet from the Stroud property line. SWE leased a surface area of 3.29 acres and disposed of approximately 7.6 million barrels of fracking waste. If the leased area were 100% porous (which it is not), it would hold just under 1.1 million barrels. As the district court noted, experts unanimously agree that this volume of waste "could not possibly fit in the reservoir space directly beneath the leasehold."

Before drilling the Campbell well, SWE got approval from the Arkansas Oil and Gas Commission. In those proceedings, it was assumed the waste would migrate radially—the general presumed movement pattern for unimpeded liquids. However, the Commission's primary focus was not the migration pattern of the waste, which was not questioned or scrutinized.

The Campbell well drilled into the Barton B. Sands reservoir, a formation thousands of feet underground that is depleted of natural gas and was available for fracking waste. The Sands reservoir runs beneath the Stroud property. The reservoir is heterogeneous, with both sand and rock. Obstacles capable of sealing fluid flow—clay shales and silica overgrowths—are in the area. However, there is no evidence that any of these impediments would prevent fracking waste from the Campbell well from flowing onto the Stroud property.

The Strouds claim that—based on the volume of disposed waste, the small volume under the leased area, the proximity of the Strouds' property, and the assumed radial flow—the fracking waste migrated into the subsurface of their property, resulting in trespass and unjust enrichment. There is no evidence of surface contamination on the Strouds' property. Instead of drilling to obtain a sample or

creating a computer model based on seismic data—both, according to the Strouds, prohibitively expensive—they hired an expert to calculate the radial flow of the fracking waste. The district court ruled his report unreliable.

The district court had ordered phased discovery, the subject of multiple disputes. It ordered: “The first, and primary, issue for discovery is whether the waste fluid has migrated to the subsurface strata of the [Strouds’] real property.”

SWE moved for summary judgment at the end of the first phase of discovery. The district court granted SWE’s motion, despite acknowledging it “*seems* likely, considering all the circumstances, that the waste migrated under the Strouds’ land” and that the remaining evidence “adds up to a strong ‘maybe.’” The court thought that a reasonable “juror would have to speculate to conclude that a trespass by migration actually occurred.”

II.

Discovery decisions and the exclusion of expert testimony are reviewed for abuse of discretion. *United States ex rel. Kraxberger v. Kansas City Power & Light Co.*, 756 F.3d 1075, 1082 (8th Cir. 2014); *Johnson v. Mead Johnson & Co., LLC*, 754 F.3d 557, 561 (8th Cir. 2014). “A district court has very wide discretion in handling pretrial discovery and this court is most unlikely to fault its judgment unless, in the totality of the circumstances, its rulings are seen to be a gross abuse of discretion resulting in fundamental unfairness in the trial of the case.” *Kraxberger*, 756 F.3d at 1082.

A.

The Strouds claim the district court erred in limiting Phase I discovery by: (1) denying access to company emails discussing injection wells; (2) requiring SWE to

produce only “their hand-picked ‘well file’” instead of answering the Strouds’ interrogatories and requests for production; (3) limiting the Strouds to depositions of SWE’s 30(b)(6) witnesses instead of allowing them to choose whom to depose; and (4) limiting the Strouds to only five interrogatories, which SWE agreed to answer instead of providing seismic data.

The district court imposed these limits in order to conduct the process efficiently. It established these restrictions as a starting point, noting that if the limited discovery showed the need for more extensive discovery, the district court would allow it. The Strouds do not argue, nor does the record reflect, that they sought additional discovery but were denied.

“[A] district court must be allowed the discretion to limit the scope of discovery to what the court perceived were the central issues.” *MKB Mgmt. Corp. v. Stenehjem*, 795 F.3d 768, 773 n.4 (8th Cir. 2015) (internal quotation marks omitted). It is within the district court’s discretion “to limit discovery and proof at trial.” *Admiral Theatre Corp. v. Douglas Theatre Co.*, 585 F.2d 877, 889 (8th Cir. 1978).

Because the discovery in this case involved sensitive proprietary information, the district court properly imposed initial limits on discovery. This was not a “gross abuse of discretion resulting in fundamental unfairness.” *Kraxberger*, 756 F.3d at 1082.

B.

The Strouds argue that the district court abused its discretion by excluding their expert’s report. Evidence based on scientific, technical, or specialized knowledge is admissible if: (1) it is relevant—“useful to the finder of fact in deciding the ultimate issue of fact”; (2) the witness is “qualified to assist the finder of fact”; and (3) it is

“reliable or trustworthy in an evidentiary sense, so that, if the finder of fact accepts it as true, it provides the assistance the finder of fact requires.” *Johnson*, 754 F.3d at 561. The expert must base an opinion “on facts or data in the case that the expert has been made aware of or personally observed.” *Id.*, quoting **Fed. R. Evid. 703** (internal quotation marks omitted). Scientific evidence “should be tested by the adversary process with competing expert testimony and cross-examination, rather than excluded by the court at the outset.” *Id.* at 562, citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 596 (1993). It should be liberally admitted if it “rests upon good grounds, based on what is known,” and doubts about the usefulness should be resolved in favor of admissibility. *Id.* (internal quotation marks omitted).

The expert report here was prepared by Walter L. Dowdle, a registered Professional Engineer in Texas and Mississippi. He has BS and MS degrees in petroleum engineering and over 35 years of consulting experience in the oil and natural gas industry. He has been qualified as an expert witness by the Federal Energy Regulatory Commission. Dowdle consulted with R. Lynn McCoy—a petrophysicist with a BS in geology and an MS in petroleum engineering—to determine values for some of the variables in his equation.

Dowdle estimated how far injected fracking waste had spread from the Campbell well. He used a simplistic equation to create a rough model, which he believed adequate “to determine the extent to which fluids injected into the [Campbell well] have reached within the subsurface disposal zone.” The equation contained “many simplifying assumptions,” including radial flow, and, according to SWE’s expert, failed to “adequately reflect the actual subsurface properties of the injection zone” by ignoring “reservoir heterogeneities and other important factors” like permeability and gravity.

In response to criticism by SWE’s expert, Dowdle created a second report explaining that his findings did not assume the input properties were constant or

uniform, but were averages. He stated that “the net thickness and average porosity of the Campbell well . . . are supported by [SWE]’s isopach map of the disposal zone and by its response to interrogatories.” He explained it was unnecessary to include permeability and gravity. He also explained:

Regarding the assumption of radial pattern, this is the same assumption commonly used throughout the oil and gas industry in the design and surveillance of waterfloods and other improved recovery projects. It is entirely reasonable to expect fluids to advance outward in a radial profile, especially when the mobility ratio is favorable (. . . which is the case in the instance of the Campbell well) and when there are no nearby interfering production or injection walls, which there are not.

Dowdle’s reports—addressing the likely distance the fracking waste spread—are relevant to whether the waste migrated onto the Stroud property, and Dowdle is qualified to assist the trier of fact in this determination. SWE argued, however, that the results of Dowdle’s equation were not reliable or trustworthy because of its simplifying assumptions.

The district court excluded Dowdle’s expert report because it “assumes the answer to the fighting issue” by assuming radial flow and is not based on sufficient facts or data. The district court emphasized the absence of “a geologist’s opinion about this subsurface’s particulars,” leaving “too blurry a picture of the Barton Sands for Dowdle, who is not a geologist, to say that migration under the Strouds’ property likely occurred.” The district court also found “methodological problems with Dowdle’s equation” because it was derived from an equation “developed for surface water calculations” that “hasn’t been published or tested” except for review by “the creator of the equation’s ancestor . . . in a related case.”

SWE argues Dowdle’s report was properly excluded because, like *Ackelson v. Brown*, “it is doubtful whether the opinion of experts will be helpful to the jury in

determining the ultimate fact,” leaving “the admission or rejection of such evidence [] largely in the trial court’s discretion,” which “will not be reviewed unless manifestly erroneous.” *See Ackelson v. Brown*, 264 F.2d 543, 546-47 (8th Cir. 1959). This is not one of those cases. Though Dowdle’s report (and its equation) may be crude and imperfect, none of the issues cited by the district court make it so unreliable that it should be excluded. It still gives the trier of fact a rough idea of how far the fracking waste would spread under certain conditions. This case is like *Smith v. BMW North America, Inc.*, where this court reversed the exclusion of a doctor’s testimony about how a driver was injured in a crash—despite the fact that he was “not an expert in biomechanics, physics, or engineering”—because he “was not called to offer expert testimony on those issues. . . . He based [his] opinion on information that fell within his field: the injuries [the driver] sustained.” *See Smith v. BMW N. Am., Inc.*, 308 F.3d 913, 919 (8th Cir. 2002). Similarly, here, Dowdle was called upon to estimate the extent of fluid spread, which was within his expertise, not determine the subsurface characteristics of the Sands reservoir, which was not.

“[S]o long as the methods employed are scientifically valid, [] mere disagreement with the assumptions and methodology used does not warrant exclusion of expert testimony.” *SEC v. Das*, 723 F.3d 943, 950 (8th Cir. 2013) (internal quotation marks omitted). Dowdle’s second report explained his assumption that the fracking waste would flow radially—drawing on his experience, common industry practice, and the specific characteristics of the area gleaned from SWE’s isopach map and interrogatory answers—and his use of generalized input values. Using widely accepted assumptions and approximations does not mean Dowdle “started his analysis where he should have ended.”

Even where “there were some flaws in the experts’ methods,” if the testimony is “within ‘the range where experts might reasonably differ,’ the jury, not the trial court, should be the one to ‘decide among the conflicting views of different experts.’” *Johnson*, 754 F.3d at 564, quoting *Kumho Tire Co. v. Carmichael*, 526 U.S. 137,

153 (1999). Though Dowdle’s equation and report imperfectly describe where the fracking waste spread, “[t]he methodology . . . was scientifically valid, could properly be applied to the facts of this case, and, therefore, was reliable enough to assist the trier of fact.” *See id.* The district court abused its discretion in excluding the report.

III.

The grant of summary judgment is reviewed de novo. *Torgerson*, 643 F.3d at 1042. Summary judgment is proper only where “the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine issue as to any material fact and that the movant is entitled to judgment as a matter of law.” **Fed. R. Civ. P. 56(c)(2)**. A court must “make all reasonable inferences in favor of the non-moving party,” but will “not resort to speculation.” *Solomon v. Petray*, 795 F.3d 777, 788 (8th Cir. 2015) (internal quotation marks omitted). If a nonmovant “come[s] forward with specific facts” that could “lead a rational trier of fact to find for the nonmoving party, there is [a] genuine issue for trial.” *Torgerson*, 643 F.3d at 1042, *citing Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586-87 (1986) (internal quotation marks omitted).

The summary judgment standard does not require the non-moving party to *prove* its case, but to submit evidence that gives rise to a genuine dispute of material fact. *See id.* The Strouds meet that standard. The evidence before the district court, even without Dowdle’s expert opinion, creates a genuine issue of material fact. The facts found by the district court are: (1) a landman who identified himself as working for SWE stated that, in his “lay opinion, the area under the Strouds’ property would be filled up by the waste injected in the neighbor’s well”; (2) SWE “tried to lease the Hillis Heirs well on the Strouds’ ground first, which creates a reasonable inference of some underground connection in the Barton Sands. The isopach map about the Barton Sands shows that part of this formation lies beneath the Strouds’ land”; (3) the

close proximity of the Campbell well to the Strouds' property line; and (4) a large volume of waste was injected into a small leased area.

SWE's own expert agrees that "mathematically it would be impossible" for the amount of disposed waste in the Campbell well to be contained within the leased area. SWE's expert admits "it's very likely that it did" leave the property. Nevertheless, SWE claims the Strouds have not proven migration because there *could* be clay drapes or silica overgrowths, which impair permeability and disrupt fluid flow, sealing off the Strouds' property. The presence of sealing formations is an issue of fact. SWE's assertion that they might exist is insufficient to satisfy a moving party's initial burden to identify an "absence of a genuine issue of material fact." *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986).

The district court acknowledges that "it *seems* likely . . . that the waste migrated under the Strouds' land," and that the circumstances "add[] up to a strong 'maybe.'" Despite these reasonable inferences of fluid migration, the district court determines that "a jury would be speculating to return a verdict that a trespass did or did not occur." The district court bases this determination on the reasoning of *Solomon*, where this court held that a non-moving party survives summary judgment when the facts, "while thin, enable a jury to draw a reasonable inference" for its claim. *Solomon*, 795 F.3d at 788. In *Solomon*, a prisoner alleged that (1) during transport, a U.S. Marshal showed him a copy of a threatening letter he wrote to a judge and said he would pay for writing it, (2) he later suffered a beating at a detention center, and (3) the individuals who beat him "attributed the abuse to a request from the marshals." *Id.* at 784. These facts, taken most favorably to the nonmoving party, withstood summary judgment because "the record could support a reasonable inference that the one named marshal alleged to have threatened Solomon for his protected expression was plausibly involved in making good on her threat." *Id.* at 788.

The Strouds present evidence that could support a reasonable inference that the fracking waste migrated across their property line. These facts, while thin, enable a jury to draw a reasonable inference that 7.6 million barrels of waste, poured into an area capable of holding no more than 1.1 million barrels, migrated 180 feet to cross the property line. This reasonable inference creates a genuine issue of material fact, precluding summary judgment.

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The judgment is reversed, and the case remanded for proceedings consistent with this opinion.
