

**United States Court of Appeals
for the Federal Circuit**

GLOBAL TUBING LLC,
Plaintiff-Cross-Appellant

v.

TENARIS COILED TUBES LLC, TENARIS S.A.,
Defendants-Appellants

2023-1882, 2023-1883

Appeals from the United States District Court for the Southern District of Texas in No. 4:17-cv-03299, Judge Keith P. Ellison.

Decided: February 26, 2026

JEFFREY A. LAMKEN, MoloLamken LLP, Washington, DC, argued for plaintiff-cross-appellant. Also represented by RAYINER HASHEM, WALTER H. HAWES, IV, CALEB HAYES-DEATS, EUGENE ALEXIS SOKOLOFF; JEFFREY A. ANDREWS, CHRISTOPHER JOHNSON, RICHARD PAUL YETTER, MATTHEW ZORN, Yetter Coleman, LLP, Houston, TX.

JOHN C. O'QUINN, Kirkland & Ellis LLP, Washington, DC, argued for defendants-appellants. Also represented by WILLIAM H. BURGESS, ASHLEY CADE, ERIN ELIZABETH CADY, ANNIE CHIANG, MEGAN MCGLYNN BUTLER, MATTHEW SCOTT OWEN, JASON M. WILCOX; LESLIE M. SCHMIDT, New

York, NY; MARK S. WIGLEY, Ward and Smith, PA, Raleigh, NC.

Before TARANTO, HUGHES, and STARK, *Circuit Judges*.

STARK, *Circuit Judge*.

Tenaris Coiled Tubes LLC and Tenaris S.A. (collectively, “Tenaris”) appeal the district court’s grant of summary judgment to Global Tubing LLC (“Global Tubing”). The district court determined that Tenaris committed inequitable conduct in obtaining U.S. Patent Nos. 9,803,256 (“256 patent”), 10,378,074 (“074 patent”), and 10,378,075 (“075 patent”). Global Tubing cross-appeals the district court’s entry of summary judgment in favor of Tenaris on Global Tubing’s *Walker Process* fraud claim, which sought to hold Tenaris liable for attempted monopolization. We conclude that genuine disputes of material fact preclude summary judgment in both instances. Therefore, we vacate and remand for further proceedings.

I

A

Coiled tubing is pliable metal pipe spooled around a large reel. It is used predominantly in the horizontal wells of the oil and gas industry. In the 1990s, Southwestern Pipe, Inc. (“Southwestern”) utilized a “quench and temper” method to treat its piping. This process involved exposing the metal to extreme heat before quickly cooling (quenching) and then reheating it (tempering). The result was a coiled tubing product Southwestern called “CYMAX,” which the company hoped would be stronger and more durable than its jointed or rolled predecessors. Despite its seemingly superior properties, however, CYMAX was not a commercial success and Southwestern exited the coiled tubing market.

In 2006, Tenaris acquired Southwestern's assets, including the manufacturing furnace Southwestern had used to produce CYMAX as well as documents describing the CYMAX production process (the "CYMAX Documents"). The CYMAX Documents disclose a version of CYMAX, called "CYMAX 100," having a chemical composition that includes 0.13-0.17 wt. % carbon and a yield strength of 100 ksi.¹ J.A. 5282.

Several years later, Tenaris created its own coiled tubing product, "BlueCoil," which shares several characteristics with CYMAX. One commonality is that BlueCoil is manufactured using a "quench and temper" process. Also, BlueCoil contains 0.17-0.35 wt. % carbon and has a yield strength of between 95 and 140 ksi.

1

Tenaris ultimately obtained five patents relating to its quenched-and-tempered coiled tubing product. The first of these, the '256 patent, lists Martín Valdez, Gonzalo Gomez, Jorge Mitre, and Bruce Reichert as inventors. Claim 1 of the '256 patent recites:

A coiled steel tube having improved yield strength and fatigue life at weld joints of the coiled tube, the coiled steel tube comprising:

a plurality of strips welded together end to end by a bias weld and formed into a coiled steel tube, each of the plurality of strips having base metal regions, bias weld joints, and heat affected zones surrounding the bias weld joints, each of the plurality of welded strips comprising:

¹ "Ksi" refers to kilopounds per square inch and is a measure of yield strength; i.e., the amount of stress a material can withstand without permanent deformation.

a yield strength greater than about 80 ksi;

a composition comprising iron and:

0.17-0.35 wt. % carbon;

0.30-2.00 wt. % manganese;

0.10-0.30 wt. % silicon;

0.010-0.040 wt. % aluminum;

up to 0.010 wt. % sulfur; and

up to 0.015 wt. % phosphorus; and

wherein the coiled steel tube has a final microstructure formed from a full body heat treatment applied to the coiled steel tube;

wherein the final microstructure comprises a mixture of tempered martensite and bainite;

wherein the final microstructure of the coiled steel tube comprises more than 90 volume % tempered martensite in the base metal regions, the bias weld joints, and the heat affected zones;

wherein the final microstructure across all base metal regions, bias weld joints, and heat affected zones is homogeneous; and

wherein the final microstructure comprises a uniform distribution of fine carbides across the base metal regions, the bias weld joints, and the heat affected zones.

J.A. 1090 (emphasis added).

The weight percentage range for all but one element of the chemical composition claimed in the '256 patent overlaps with the corresponding ranges disclosed in the

CYMAX Documents.² For example, claim 1 requires carbon in an amount of 0.17 to 0.35 wt. %, while the carbon range taught in the CYMAX Documents is 0.13 to 0.17 wt. %. Thus, claim 1 and the CYMAX Documents overlap at 0.17 wt. %. Similarly, the '256 patent claims “a yield strength greater than about 80 ksi,” while the CYMAX Documents disclose a yield strength of 100 ksi. J.A. 1090, 5282. Thus, both formulations recite a yield strength that overlaps at 100 ksi and above.

2

Along with the application that ultimately became the '256 patent, Tenaris submitted 573 prior art references to the Patent and Trademark Office (“PTO”). Among them was a 1992 paper presented at the Offshore Technology Conference by G.B. Chitwood and three coauthors, two of whom were Southwestern engineers, entitled “High-Strength Coiled Tubing Expands Service Capabilities” (“Chitwood”). Chitwood details the manufacturing and testing processes for CYMAX and discloses coiled tubing composed of “low-carbon 4100 series steel” having a minimum of “100 ksi yield strength.” J.A. 3462-63. The parties agree that the tubing Chitwood is referring to is CYMAX 100. Although Chitwood does not expressly disclose specifications for CYMAX 100’s chemical composition, the “low-carbon 4100 series steel” it teaches undisputedly corresponds to a carbon range of at least 0.18 to 0.43 wt. %. Notably, the CYMAX Documents, like the Chitwood reference, disclose that “[t]he steel sheet shall be 4100 series,” consistent with the industry standard set by the

² Although immaterial to this appeal, the 0.025 wt. % phosphorous specification of the CYMAX Documents is outside the range claimed by claim 1 of the '256 patent, which is “up to 0.015 wt. % phosphorous.” *Compare* J.A. 1090 *with* J.A. 5282.

American Society for Testing and Materials (“ASTM”) in specification A-607. J.A. 5282.

During prosecution of the ’256 patent, Tenaris submitted Chitwood to the PTO but did not submit the CYMAX Documents. In Tenaris’ view, Chitwood discloses materially the same information as the CYMAX Documents, including a carbon range (0.18-0.43 wt. %) that overlaps with the carbon range claimed in claim 1 of its ’256 patent (0.17-0.35 wt. %). The specific CYMAX 100 carbon range disclosed in the CYMAX Documents, 0.13-0.17 wt. %, which includes the 0.17 wt. % point of overlap with claim 1’s 0.17-0.35 wt. % range, is not, however, disclosed in Chitwood.

A patent examiner initially rejected the proposed claims of the ’256 patent for obviousness, finding that the prior art taught the same structure and process used by the patent. The examiner further determined that claimed properties, such as yield strength, were inherent features and were not novel.

As part of its attempt to overcome this rejection, Tenaris filed an inventor declaration from Dr. Martín Valdez (the “Valdez Declaration”), which addressed purported secondary considerations of non-obviousness relating to claim 1. In the course of preparing the Valdez Declaration, Tenaris’ prosecution counsel asked Dr. Valdez for evidence that might be included. In questions embedded in a draft of the declaration (the “Draft Declaration”), counsel specifically asked Dr. Valdez: “Is there any particular evidence of long felt need of a particular property of the coiled tube?” “Can you provide any evidence or details of this long felt need?” and “Do you have any evidence of people struggling to achieve the claimed coiled tube?” J.A. 7721 (capitalization omitted).

Dr. Valdez responded to counsel with a series of type-written “comment bubbles” in the margins of a Microsoft Word version of the Draft Declaration. In these comments, Dr. Valdez noted that “[t]here was an attempt called

Cymax” which, like BlueCoil, “produce[d] 100 ksi but the [carbon] chemistry was C:0.13-0.17[%] (which is outside our carbon range).” *Id.* Dr. Valdez’s statement that CYMAX’s 0.13-0.17 wt. % was “outside” claim 1’s carbon range, which is 0.17-0.35 wt. %, is mistaken, given that the ranges share the overlapping point of 0.17 wt. %.

In another part of his margin comments, Dr. Valdez referred to the CYMAX Documents and indicated he was providing them to counsel. Dr. Valdez specifically directed counsel’s attention to “page 30 of the Cymax pdf [in which] you can see the spec[ification] of the CYmax 100 which was 0.13-0.17 [wt. %] Carbon.” *Id.*; *see also* J.A. 5282 (Page 30: “Specification for CYMAX 100”). Elsewhere in this comment bubble, Dr. Valdez wrote, referring to the CYMAX Documents: “I am not sure it is a good idea to disclose this document.” J.A. 7721.

As we have already noted, prosecution counsel did not, at any point during the prosecution of the ’256 patent, provide the CYMAX Documents to the examiner. The examiner, after receiving the Valdez Declaration and knowing nothing of the CYMAX Documents, withdrew the rejection and allowed the ’256 patent to issue.

3

Tenaris filed additional patent applications, each of which claimed priority to the ’256 patent. Two “child” patents are the ’074, a continuation of the ’256 patent, and the ’075, a divisional of it. The claims of the ’074 and ’075 patents are substantially similar to those of the ’256 patent, including in their carbon ranges (0.16-0.35 wt. %); their differences are not material to the issues in this appeal.

These child patents were prosecuted by different attorneys at a different law firm than the one responsible for the prosecution of the ’256 patent. Tenaris provided the CYMAX Documents to the new firm. In connection with

the prosecution of the '074 and '075 patents, the new attorneys informed Tenaris that “the CYMAX Documents come close to the inventions included in the continuations, and therefore, we need to disclose them to the patent office.” J.A. 5542. Counsel added that if the CYMAX Documents were cited by Global Tubing in a challenge to the validity of Tenaris’ patents, “Global would likely prevail [and the PTO] would invalidate the [’074 and ’075] continuations and even perhaps the ’256 [patent itself].” *Id.*

Tenaris’ in-house patent counsel initially resisted submitting the CYMAX Documents to the PTO, suggesting they did not qualify as prior art because they were never publicly printed or disclosed. Prosecution counsel nevertheless continued to urge Tenaris to submit them, noting “[i]t appears from the face of the [D]ocuments that they have been disclosed [publicly] or were intended for disclosure.” J.A. 5545; *see also* J.A. 5549 (“[T]he CYMAX references bear several ‘earmarks’ of publication.”); J.A. 10131 (“Re-read Rule 56 Note the absence of any qualifying language such as ‘. . . but only if you’re absolutely certain that it qualifies as prior art.’”); J.A. 8416 (“[T]o comply with [the] duty [of candor] to the USPTO regarding prosecution of patents, we need [to] at least . . . [i]nterview all 4 inventors to determine if they know anything about whether the Cymax [D]ocuments were distributed publicly.”).

Ultimately, Tenaris submitted the CYMAX Documents to the PTO as part of the prosecution of the '074 and '075 patents. However, it only did so by splitting apart the pages of the CYMAX Documents and submitting them as separate references – and never including pages 27-31 among any of them. This meant that Tenaris did not at the time disclose to the PTO page 30 of the CYMAX Documents, which contains CYMAX 100’s chemical composition and, in particular, the 0.17 wt. % carbon point common to the claims of Tenaris’ ’256 (0.17-0.35 wt. %), ’074 (0.16-0.35 wt. %), and ’075 (0.16-0.35 wt. %) patents. The PTO issued the '074 and '075 patents.

4

Tenaris later prosecuted “grandchild” patents of the ’256 patent, including application Nos. 16/538,326 (“326 application”) and 16/538,407 (“407 application”). In these prosecutions, Tenaris finally submitted the entirety of the CYMAX Documents to the PTO, including page 30. Tenaris also filed terminal disclaimers, ensuring that the claims of the patents resulting from the ’326 and ’407 applications would expire on the same date as the claims of the ’256 patent. After Tenaris amended these grandchild claims in ways whose relevance to this appeal is disputed, the examiner issued notices of allowance for both applications. *See infra* Part III.C.2 & n.6.

B

1

Global Tubing manufactures its own quenched-and-tempered coiled tubing product, “DURACOIL,” which it launched in 2017, two years after Tenaris entered the market with BlueCoil. According to Global Tubing, Tenaris told customers at a 2017 industry trade show that DURACOIL was a copy of BlueCoil and intimated that Tenaris was about to sue Global Tubing for patent infringement. Rather than await litigation, Global Tubing sued Tenaris in October 2017, seeking a declaratory judgment that DURACOIL does not infringe the ’256 patent. Tenaris counterclaimed, alleging DURACOIL infringes the ’256 patent as well as the ’074 and ’075 patents.

During discovery, Tenaris inadvertently produced communications that had occurred among its inventors and prosecution counsel. A magistrate judge rejected Tenaris’ efforts to “claw back” these materials, ordering their production under the crime-fraud exception to the attorney-client privilege. In particular, the judge found that Dr. Valdez’s statement in the margin of the Draft Declaration – “I am not sure it is a good idea to disclose this document” –

was “a rare example of direct evidence of an intent to defraud.” J.A. 4044. The magistrate judge further found, albeit in the context of a discovery dispute, that fraudulent intent was the single most reasonable inference to be drawn from this evidence.

Thereafter, Global Tubing amended its complaint to add the two claims at issue in this appeal: (1) inequitable conduct; and (2) *Walker Process* fraud, i.e., that Tenaris was attempting to use its fraudulently obtained patents to monopolize the market. *See Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172, 177 (1965). The inequitable conduct claim was based on Tenaris’ nondisclosure to the PTO of the CYMAX Documents, which Global Tubing alleged were material to patentability and were withheld from the PTO with the intent to defraud. The *Walker Process* fraud claim alleged that Tenaris misused its “significant market share and very broad patents” to create a “dangerous probability” that Tenaris would achieve a monopoly. J.A. 2059.

As part of discovery, Global Tubing deposed Dr. Valdez. During the deposition, Global Tubing’s counsel asked Dr. Valdez what he had meant when he wrote to prosecution counsel he was “not sure it is a good idea” to disclose the CYMAX Documents to the PTO. J.A. 7799. Dr. Valdez replied that he brought up CYMAX in response to the attorney’s question about secondary considerations of non-obviousness, because “the only reference that comes to my mind of someone struggling to try to produce what we were trying to do was CYMAX.” J.A. 7798 (“What trigger[ed] me to talk about CYMAX [with our lawyer] was [Southwestern’s] struggl[e] of producing quench and temper coiled tubing. I have this idea that [CYMAX] was not a successful product . . . [because it] died in the Nineties as it was trying to be born.”); J.A. 7799 (“When [our lawyer] asked about evidence of people struggling to achieve the claimed coiled tubing, [what] would come to my mind is CYMAX.”).

Nonetheless, in Dr. Valdez's view, CYMAX had "a different range of properties" than those of Tenaris' BlueCoil embodiment of the '256 patent's claims. J.A. 7799. "It's a different chemical composition," he insisted. *Id.* He explained that in the "comment bubble" on the Draft Declaration, he had "pointed to a difference that [CYMAX] has, for example, the [lower] carbon [percentage]." J.A. 7798; *see also* J.A. 7797 ("[W]e focused all of our development o[n] our higher carbon steel . . . it's an important part of the [BlueCoil] product."). According to Dr. Valdez, this difference led him to believe that "maybe [CYMAX] [i]s not useful" to prosecution. J.A. 7799 ("I had the idea it wasn't."). Ultimately, Dr. Valdez concluded that CYMAX "was a different product from the one we were claiming. So I thought it was not a good idea" to disclose it, since "it will be confusing." *Id.* ("I thought maybe it was not a good idea since it will not be aligned with the claimed coiled tubing."). Still, Dr. Valdez continued, "I thought I'm not sure, so I left it also to [counsel] for his opinion," which was "the reason why I include[d]" the CYMAX Documents in what he produced to the attorney, "for him to have a look at the document[s]." *Id.*

Dr. Valdez testified to an additional reason he was unsure whether the CYMAX Documents needed to be submitted to the PTO. He thought the substantive content of the CYMAX Documents had already been disclosed via Chitwood, because in his view "Chitwood discloses CYMAX," and "we disclosed Chitwood as representative of CYMAX." J.A. 7793 ("Chitwood was CYMAX to me."). He elaborated:

Chitwood was the public record of what CYMAX did. I mean, it was equivalent in content The Chitwood paper describes a problem solve which is the same as CYMAX, which was the need to increase yield strength. [Chitwood] disclose[d] the coiled tubing that is heat treated, CYMAX did [too]. [Chitwood] includes a reference to the chemistries

which [also in] CYMAX are included. Actually Chitwood is broader than CYMAX.

Id.; see also J.A. 7794 (“They were equivalent for the purpose of letting the examiner know that there has been a prior attempt to heat treat coiled tubing, who did it, in which company, which steels to obtain which microstructure. That was CYMAX and that was Chitwood.”).

2

Following the completion of discovery, the parties filed cross-motions for summary judgment. Global Tubing sought summary judgment on its inequitable conduct claim, while Tenaris sought summary judgment of no liability on both Global Tubing’s inequitable conduct and *Walker Process* claims. The district court granted summary judgment of inequitable conduct to Global Tubing and granted summary judgment of no liability for *Walker Process* fraud to Tenaris.

With respect to inequitable conduct, the district court concluded there was clear and convincing evidence that Dr. Valdez, on behalf of Tenaris, intended to deceive the PTO by withholding the CYMAX Documents, which the court further determined were material to patentability and not cumulative of Chitwood. The court further reasoned that the inequitable conduct plaguing the ’256 parent patent also infected the ’074 and ’075 child patents, given that Tenaris failed to disclose page 30 (and several other pages) of the CYMAX Documents even in those latter prosecutions.

With respect to Global Tubing’s *Walker Process* fraud claim, the court granted summary judgment to Tenaris. The court determined that, because Tenaris was “such a small market player,” Global Tubing could not prove Tenaris had market power sufficient to pose a dangerous probability of achieving a monopoly, an essential element

of Global Tubing's claim. J.A. 31191. This failing was, in the court's view, dispositive.

Tenaris now appeals the judgment of inequitable conduct and Global Tubing cross-appeals the judgment of no *Walker Process* fraud. The district court had jurisdiction under 15 U.S.C. § 4 and 28 U.S.C. §§ 1331, 1338(a), & 2201. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

II

We apply regional circuit law to determine the standards for obtaining summary judgment. *See United Servs. Auto. Ass'n v. PNC Bank N.A.*, 139 F.4th 1332, 1336 (Fed. Cir. 2025); *Ericsson Inc. v. TCL Commc'n Tech. Holdings Ltd.*, 955 F.3d 1317, 1324 (Fed. Cir. 2020). Summary judgment is appropriate only "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). "A genuine dispute of material fact exists if the evidence is sufficient for a reasonable jury to return a verdict for the nonmoving party." *Fleming v. Bayou Steel BD Holdings II LLC*, 83 F.4th 278, 293 (5th Cir. 2023) (internal quotation marks omitted).

The party moving for summary judgment bears the burden of demonstrating the absence of any genuine issue of material fact. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). In opposing such a motion, the nonmoving party must "set forth specific facts showing that there is a genuine issue for trial." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986) (internal quotation marks omitted). A nonmoving party may support its position by "citing to particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations," or by "showing that the materials cited [by the moving party] do not establish the absence . . . of a genuine dispute." Fed. R. Civ. P. 56(c)(1). In evaluating a motion for summary judgment, all reasonable

inferences must be drawn in the nonmovant's favor. See *Anderson*, 477 U.S. at 255.

Inequitable conduct is an issue of patent law that must be proven according to standards set out in our own precedent. See *Duro-Last, Inc. v. Custom Seal, Inc.*, 321 F.3d 1098, 1106 (Fed. Cir. 2003). “We review the district court’s decision to grant summary judgment for inequitable conduct *de novo*.” *Leviton Mfg. Co. v. Universal Sec. Instruments, Inc.*, 606 F.3d 1353, 1358 (Fed. Cir. 2010).

We similarly “apply Federal Circuit law, rather than regional law, to a *Walker Process* claim.” *Chandler v. Phoenix Servs. LLC*, 1 F.4th 1013, 1017 (Fed. Cir. 2021) (internal quotation marks omitted). We review summary judgment determinations concerning a *Walker Process* fraud claim *de novo*. See *In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F.3d 1322, 1324-25 (Fed. Cir. 2000).

III

Tenaris appeals the district court’s grant of summary judgment on Global Tubing’s inequitable conduct claim. Tenaris contends the district court committed reversible error in two respects. First, Tenaris argues that it demonstrated a genuine dispute of material fact as to whether Dr. Valdez acted with the specific intent to defraud the PTO. Second, Tenaris contends that the record reveals an additional genuine dispute as to whether the withheld CYMAX Documents are material to the patentability of the ’256, ’074, and ’075 patents, or are instead merely cumulative of the Chitwood reference that was submitted in those prosecutions. We address both grounds in turn.

A

To prevail on an inequitable conduct claim, a party must prove at least one specified individual acted with “the specific intent to deceive the PTO” by withholding material information. *Luv n’ Care, Ltd. v. Laurain*, 98 F.4th 1081,

1096-97 (Fed. Cir. 2024); *see also Exergen Corp. v. Wal-Mart Stores, Inc.*, 575 F.3d 1312, 1328-29 (Fed. Cir. 2009).

With respect to intent to deceive, “gross negligence or negligence under a ‘should have known’ standard” is insufficient; instead, actual deceptive intent must be shown to be “the single most reasonable inference able to be drawn from the evidence.” *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011) (en banc) (internal quotation marks omitted). Specifically, “the accused infringer must prove by clear and convincing evidence that the applicant knew of the [withheld] reference, knew that it was material, and made a deliberate decision to withhold it.” *Id.*

For a prior art reference to be material, it must be shown by a preponderance of the evidence that, but-for the reference having been withheld, the patent would not have been granted. *See Belcher Pharms., LLC v. Hospira, Inc.*, 11 F.4th 1345, 1352 (Fed. Cir. 2021). “Prior art is but-for material if the PTO would have denied a claim had it known of the undisclosed prior art,” but it “is not but-for material if it is merely cumulative.” *Cal. Inst. of Tech. v. Broadcom Ltd.*, 25 F.4th 976, 991 (Fed. Cir. 2022) (internal citation omitted). “A reference is cumulative when it teaches no more than what a reasonable examiner would consider to be taught by the prior art already before the PTO.” *Regeneron Pharms., Inc. v. Merus N.V.*, 864 F.3d 1343, 1350 (Fed. Cir. 2017) (internal quotation marks omitted).

B

We begin with intent to defraud. The district court determined that Dr. Valdez’s statement in the comment bubble on the Draft Declaration, “I am not sure it is a good idea to disclose this document,” proved intent. J.A. 14 (quoting J.A. 7721). The court held “there is no other reasonable inference that can be drawn from Tenaris’ withholding the CYMAX [D]ocument[s] from the Patent Office,

other than intent to deceive.” *Id.* The court recognized, but rejected, Tenaris’ argument that Dr. Valdez’s statement should be read as expressing doubt about the relevance of the CYMAX Documents, given his purported (mistaken) belief that the carbon ranges did not overlap. To the district court, this interpretation of the evidence “does not present an equally reasonable inference to Global’s intent to deceive argument.” *Id.*

In our view, the district court erred because it failed to consider the evidence of Dr. Valdez’s intent in the light most favorable to Tenaris, the nonmoving party. The court neglected to draw all reasonable inferences from the record in favor of Tenaris. Doing so now, we conclude there is a genuine dispute as to the material fact of whether the single most reasonable inference is that Dr. Valdez acted with the specific intent to defraud the PTO. Summary judgment of inequitable conduct was, therefore, improper.

1

The attorneys prosecuting Tenaris’ ’256 patent application sent Dr. Valdez the Draft Declaration, which included numerous questions to Dr. Valdez, including: “Do you have any evidence of people struggling to achieve the claimed coiled tube?” J.A. 7721. In doing so, the attorneys were soliciting from Dr. Valdez evidence of secondary considerations of non-obviousness that they could include as part of Tenaris’ response to an office action rejection. *See id.* (“Is there any particular evidence of long felt need?”). Dr. Valdez replied to prosecution counsel by marking up the Draft Declaration and including a “comment bubble” along the margin that read, in full:

The claimed coiled tubing on the range of properties we are claiming ([e]specially the one we are selling 110-125-140 ksi) was not explore[d] before[.] There was an attempt called Cymax (I include a paper/document for your reference)[.] The intention was to go higher than 70 ksi, they produce[d] 100

ksi but the chemistry was C:0[.]13-0[.]17 (which is outside our carbon range)[.] In page 30 of the Cymax pdf doc you can see the spec of the CYmax 100 which was 0[.]13-0[.]17 Carbon[.] I am not sure it is a good idea to disclose this document.

Id. (bracketed material added).

From this evidence, Global Tubing argues that the final part of Dr. Valdez's comment – "I am not sure it is a good idea to disclose this document" – is as close to an admission of fraudulent intent as one ever sees in patent litigation. This is how the district court viewed the remark, opining: "Rarely do courts come across such stark evidence of the intent fork of inequitable conduct." J.A. 14; *see also* J.A. 4044 ("This statement, questioning whether it is a good idea to disclose the CYMAX material, is a rare example of direct evidence of an intent to defraud."). And surely, at trial, a factfinder could reasonably find that Dr. Valdez was thinking that the CYMAX Documents disclose the 0.13-0.17 wt. % carbon range, which overlaps with the 0.17-0.35 wt. % carbon range of the proposed claims, leading him to fear that submitting the Documents would cause the claims to be finally rejected as obvious based on the overlapping 0.17 wt. % carbon point.

Alternatively, however, and crucial at the summary judgment stage, a reasonable factfinder, taking the evidence in the light most favorable to Tenaris, could instead credit Dr. Valdez's testimony. Dr. Valdez explained in his deposition that he believed the CYMAX Documents disclosed a "lower carbon" steel tubing range of 0.10 to 0.17 wt. %. J.A. 7797 ("So lower carbon, we are referring to the conventional coiled tubings which are between 0.1 to 0.16, 17 percent."). By contrast, he continued, the '256 patent "claimed coiled tubing included a chemistry with higher carbon. So the chemistry with the lower carbon" disclosed in the CYMAX Documents "was outside of the carbon range of the claimed coiled tubing." J.A. 7798 ("I pointed to a

difference that it has, for example, [with] the carbon.”); J.A. 7799 (“[CYMAX] was a different range of properties than [BlueCoil].”). On this point, Dr. Valdez was wrong, both as a matter of fact and a matter of patent law. The CYMAX Documents disclose a carbon range that overlaps at its end point, 0.17 wt. %, with the lower bound of the claimed range of the ’256 patent. See *In re Geisler*, 116 F.3d 1465, 1469 (Fed. Cir. 1997) (“[A] claimed invention [may be] rendered prima facie obvious by the teachings of a prior art reference that discloses a range that touches the range recited in the claim.”).

So Dr. Valdez was mistaken, in his deposition testimony and also in his comment in the margin of the Draft Declaration, when he said the carbon ranges of the ’256 patent claims and CYMAX Documents do not overlap. What could Dr. Valdez’s faulty insistence on this point tell a reasonable factfinder? It could mean he fabricated his view that there is no overlap; surely he knows 0.17 overlaps with 0.17, and his refusal to acknowledge that undeniable reality may mean he lacks credibility and his testimony should be rejected. On the other hand, it may mean Dr. Valdez was genuinely confused about what the CYMAX Documents show and whether they are relevant to proving that others tried but failed to invent what the ’256 patent claims.

As between competing reasonable inferences that may be drawn from the same evidence, courts are bound at summary judgment to accept those inferences that are most favorable to the nonmoving party. Thus, here, we must credit the reasonable inference that Dr. Valdez was innocently mistaken about the lack of overlap in the carbon content and the legal import of that overlap. At this stage and on this evidence, we may not conclude that Dr. Valdez was instead lying at his deposition and intended to deceive the PTO.

Dr. Valdez further explained that he thought the CYMAX Documents showed others trying to achieve something different than the '256 patent's high carbon mixture: a low carbon formulation. J.A. 7799 ("It's a different chemical composition. So maybe it's not useful."). His concern, he insisted, was that the failure depicted in the CYMAX Documents might not be responsive to prosecution counsel's inquiry to him. *Id.* ("I thought maybe it was not a good idea since it will not be aligned with the claimed coiled tubing. . . . So it will be confusing."). Counsel had told Dr. Valdez, "we need to make sure the evidence in our declaration is tied directly into our claims." J.A. 7710. Dr. Valdez testified that this instruction made him uncertain whether the CYMAX Documents met this seemingly exacting standard. J.A. 7798-99.

Of course, it is possible that Dr. Valdez only said these things as post-hoc rationalizations, because he in fact feared the overlapping carbon range would confirm, rather than disrupt, the obviousness rejection of the '256 patent claims. But viewing the evidence in the light most favorable to Tenaris requires that we credit, for the purposes of evaluating Global Tubing's summary judgment motion, the reasonable inference that Dr. Valdez thought the CYMAX Documents lacked relevance because they involved a different carbon range. *See Dig. Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309, 1314 (Fed. Cir. 2006) ("[W]e have refused summary judgment where the plaintiff submitted an affidavit that set forth a non-frivolous explanation that could lead a finder of fact to determine that his declaration to the PTO was not false or misleading, or where the plaintiff stated facts supporting a plausible justification or excuse for the misrepresentation.") (internal citations, alterations, and quotation marks omitted).

Dr. Valdez further claimed to have believed that “Chitwood discloses CYMAX,” and because Tenaris had already “disclosed Chitwood as representative of CYMAX,” he thought there was no reason to also submit the CYMAX Documents. J.A. 7793. He insisted that, as far as he understood, “Chitwood was the public record of what CYMAX did. . . . [I]t was equivalent in content . . . [because] [t]he Chitwood paper describes a problem solve which is the same as CYMAX, which was the need to increase yield strength.” *Id.*; *see also* J.A. 7794 (“They were equivalent for the purpose of letting the examiner know that there has been a prior attempt to heat treat coiled tubing, who did it, in which company, which steels to obtain which microstructure. That was CYMAX and that was Chitwood.”). Because a reasonable factfinder could credit this testimony, at summary judgment we must infer that Dr. Valdez’s reasons for not producing the CYMAX Documents included his belief that they were cumulative and he was not, to the contrary, withholding them for the purpose of deceiving the PTO.³

Notwithstanding his doubts, Dr. Valdez provided the CYMAX Documents to prosecution counsel. If Dr. Valdez intended to defraud the PTO, the most likely way to ensure the examiner would never see the CYMAX Documents would have been to omit mention of them altogether, including to Tenaris’ own attorneys. Instead, he produced them to counsel and drew attention to them with his bubble comment. *See* J.A. 7721 (“There was an attempt called Cymax (I include a paper/document for your reference).”). That enabled counsel to make the decision about what

³ As we explain below, there is a genuine dispute of material fact as to whether the CYMAX Documents are cumulative of Chitwood. *See infra*, Part III.C.

needed to be disclosed to the PTO. *See* J.A. 7799 (“I left it also to [him] for his opinion.”).

In sum, a reasonable factfinder could credit Dr. Valdez’s testimony that he was genuinely unsure as to whether the CYMAX Documents were relevant to the prosecution of the ’256 patent. Tenaris has therefore met its burden to identify record evidence showing that Dr. Valdez’s intent is a genuinely disputed fact. *See Paragon Podiatry Lab., Inc. v. KLM Labs., Inc.*, 984 F.2d 1182, 1190 (Fed. Cir. 1993) (“If the facts of materiality or intent are reasonably disputed, the issue is not amenable to summary judgment.”) (internal quotation marks and emphasis omitted); *see also* Fed. R. Civ. P. 56(c)(1)(A) (“A party asserting that a fact . . . is genuinely disputed must support the assertion by citing to . . . depositions, documents, . . . affidavits or declarations.”) (subsection partition omitted). Hence, summary judgment was not appropriate.

4

Notwithstanding the above analysis, Global Tubing argues that the district court was permitted to resolve for itself, by application of a “rare” Fifth Circuit exception to the ordinary Rule 56 standard, that Dr. Valdez intended to deceive the PTO. *Nunez v. Superior Oil Co.*, 572 F.2d 1119, 1124 (5th Cir. 1978). In the Fifth Circuit, “at the summary judgment stage a judge in a bench trial has the limited discretion to decide that the same evidence, presented to him or her as trier of fact in a plenary trial, could not possibly lead to a different result.” *In re Placid Oil Co.*, 932 F.2d 394, 398 (5th Cir. 1991); *see also Champagne v. A & T Mar. Logistics Inc.*, 127 F.4th 620, 625 (5th Cir. 2025) (“[I]n bench-trial cases the district court has greater discretion to grant summary judgment.”) (internal quotation marks

omitted).⁴ Even in the Fifth Circuit, however, this “enhanced leeway,” *Fleming*, 83 F.4th at 294, which may include drawing inferences *in favor of the moving party*, exists “only when the evidentiary facts are not disputed and there are no issues of witness credibility,” *Manson Gulf, LLC v. Mod. Am. Recycling Serv., Inc.*, 878 F.3d 130, 134 (5th Cir. 2017) (internal quotation marks omitted); *see also Nunez*, 572 F.2d at 1123-24. The Fifth Circuit “forbid[s] the judge from drawing inferences from the evidence submitted on summary judgment . . . [when] those inferences involve issues of witness credibility or disputed material facts.” *Placid Oil*, 932 F.2d at 398; *see also Manson Gulf*, 878 F.3d at 136 (“By adopting one side of [the witness] story as [t]he most convincing evidence’ while neglecting [his own] contrary account, the court, in essence, found one version more credible than the other. And *Nunez* forbids credibility determinations on a cold summary-judgment record.”).

⁴ Global Tubing’s argument is premised on inequitable conduct being tried to a judge, not a jury, which is normally the case. *See, e.g., Agfa Corp. v. Creo Prods. Inc.*, 451 F.3d 1366, 1371 (Fed. Cir. 2006). Here, however, the parties have contemplated that if both inequitable conduct and *Walker Process* fraud have to be tried – which our disposition of this appeal may require – portions of that trial will be to a jury, including with respect to issues of intent. *See id.* at 1372 (“[A] trial judge could not conduct a bench trial (and preclude a jury trial) on equitable declaratory relief claims where that trial would resolve ‘common’ issues with a claim subject to jury resolution.”); *see also Beacon Theatres, Inc. v. Westover*, 359 U.S. 500, 503-04 (1959). It may be, then, that the Fifth Circuit’s exception to Rule 56 is inapplicable for the further reason that at least some aspects of inequitable conduct will not be the subject of a bench trial in this case.

The circumstances here, then, do not come within the Fifth Circuit’s “rare” exception. Determining whether Dr. Valdez, when he wrote his comment on the Draft Declaration, was acting with the specific intent to deceive the PTO – or was instead mistaken about the carbon content range disclosed in the CYMAX Documents, confused about the patent law doctrine of secondary considerations of non-obviousness, and of the (reasonable) belief that the CYMAX Documents were merely cumulative of the already-disclosed Chitwood reference – is a highly disputed, material matter whose resolution turns on the factfinder’s assessment of Dr. Valdez’s credibility. Because the evidentiary facts *are* disputed and there *are* issues of witness credibility, the district court here could not invoke the “enhanced leeway” that is sometimes permitted at summary judgment in non-jury cases under Fifth Circuit law.

Global Tubing additionally suggests that our own caselaw permits a district court reviewing a motion for summary judgment of inequitable conduct to draw inferences *against* the nonmoving party, as the district court did here. This is incorrect. The cases on which Global Tubing relies, all of which were issued prior to our decision in *Therasense* (and, hence, under an outdated legal standard), do not support Global Tubing’s position. See *Ferring B.V. v. Barr Labs., Inc.*, 437 F.3d 1181, 1192 n.13 (Fed. Cir. 2006) (“Credibility . . . become[s] an issue once a party offers a declarant’s testimony in support or in opposition to summary judgment.”); *Paragon*, 984 F.2d at 1190 (“If the facts of materiality or intent are *reasonably* disputed, the issue is not amenable to summary judgment.”) (internal quotation marks omitted); *Cargill, Inc. v. Canbra Foods, Ltd.*, 476 F.3d 1359, 1367 (Fed. Cir. 2007) (applying now-inapplicable pre-*Therasense* standard for materiality of whether applicant “should have known” examiner would find reference pertinent to patentability).

Contrary to Global Tubing’s suggestion, “our precedent urges caution in the grant of summary judgment

respecting a defense of inequitable conduct.” *Paragon*, 984 F.2d at 1190. “[A] grant of summary judgment on the issue of inequitable conduct is permissible, but uncommon. Generally, the concerns attendant to awards of summary judgment on inequitable conduct relate to the inherently factual nature of the issue of intent.” *Dig. Control*, 437 F.3d at 1317; *see also Poller v. Columbia Broad. Sys., Inc.*, 368 U.S. 464, 473 (1962) (“[S]ummary procedures should be used sparingly in complex [] litigation where motive and intent play leading roles.”). These general observations confirm our conclusion that summary judgment of inequitable conduct was not warranted in the specific circumstances of this case.⁵

C

1

Whether the CYMAX Documents are material to patentability, or are instead cumulative of the Chitwood reference, presents another genuine dispute of material fact and, hence, another reason summary judgment should not have been granted on Global Tubing’s inequitable conduct claim.

Materiality is a question of fact. *See Belcher Pharms.*, 11 F.4th at 1352. “[T]he scope and content of prior art and what the prior art teaches are questions of fact.” *Dig. Control*, 437 F.3d at 1319. “Prior art is but-for material if the

⁵ Because the district court granted summary judgment that inequitable conduct was committed by Dr. Valdez, it did not reach Global Tubing’s claims that other individuals also committed inequitable conduct; nor did it reach Tenaris’ denials of these claims. *See generally Exergen*, 575 F.3d at 1328-29 (holding that inequitable conduct claim must identify “a specific individual” who purportedly committed it). These matters may need to be resolved on remand.

PTO would have denied a claim had it known of the undisclosed prior art. Prior art is not but-for material if it is merely cumulative.” *Broadcom*, 25 F.4th at 991 (internal citation omitted).

It is Global Tubing’s burden to prove, by a preponderance of the evidence, that the withheld CYMAX Documents are but-for material to patentability. *See Regeneron*, 864 F.3d at 1350. To prevail on its motion for summary judgment, then, Global Tubing needed to show that a reasonable factfinder, viewing the evidence in the light most favorable to Tenaris, could only have found that Global Tubing met this burden. The record does not permit this conclusion.

A reasonable factfinder could find that Chitwood, which Tenaris provided to the examiner, discloses a “low-carbon” steel with a specific chemistry overlapping what was taught by the undisclosed CYMAX Documents. J.A. 3462-63. Chitwood expressly states that “[t]he material chosen, a low-carbon 4100 series steel, has sufficient hardenability to achieve the uniform, martensitic microstructure from heat treatment,” and it specifically discloses a yield strength of 100 ksi. J.A. 3463; *see also* J.A. 11691, 11694. While the district court correctly noted that “Tenaris fails to identify any part of the Chitwood [article] that includes the precise chemical specification that the CYMAX brochure included at page 30,” Tenaris produced evidence showing that a skilled artisan could have discerned that specific chemistry from Chitwood and publicly available sources. J.A. 13. Dr. Valdez spoke to this point in his deposition, testifying that “Chitwood states the type of steel you use,” i.e., “low-carbon 4100 series steel.” J.A. 7793; *see also* J.A. 3463. He continued: “It makes reference to the ASTM, American Society for Testing and Material[s] A606 and also for the type of steel used, which are publicly available to come from a chemical composition.” *Id.*; *see also* J.A. 6978 (“[I]f you look up 4100 series there is a list of chemistries and the ranges to be included in the ASTM

4100 series.”). From this information, a person of ordinary skill in the art would, Dr. Valdez explained, know she could reference a published trade table of “low-carbon 4100 series steel,” and thereby discern that the steel used in Chitwood contains percentage weight components that match those disclosed at page 30 of the CYMAX Documents.

To be sure, a reasonable factfinder could well reject this chain of inferences. But they are not unreasonable, and at summary judgment we must draw all reasonable inferences in the nonmovant’s favor. A reasonable factfinder *could* credit Dr. Valdez’s explanation, and doing so would lead to the conclusion that the CYMAX Documents are cumulative of Chitwood and, therefore, not but-for material. Summary judgment of materiality is, accordingly, unwarranted.

2

The record contains additional evidence that could support a finding that the claims of ’256 patent, as well as the claims of the ’074 and ’075 patents, would have been granted even had Tenaris disclosed the entirety of the CYMAX Documents during prosecution. Specifically, during the prosecution of the grandchild ’326 and ’407 applications, Tenaris submitted the entirety of the CYMAX Documents in exactly the form in which they originally existed (i.e., not divided, or with page 30 missing, as occurred in the ’074 and ’075 prosecutions), and the PTO still granted the claims in those applications.

From this evidence, a reasonable factfinder could find that the PTO would have granted the ’256, ’074, and ’075 patents, even had the examiner been aware of the CYMAX Documents, because the closely related grandchild patents were granted in substantially similar circumstances. To support the reasonableness of such inferences, Tenaris produced an expert report from former Commissioner of Patents Robert L. Stoll, who opined that the grandchild

prosecutions are “strong evidence that CYMAX is not but-for material to the ’256, ’074, or ’075 Patents.” J.A. 5104.⁶

Alternative inferences would also be reasonable. As Global Tubing emphasizes, the claims of the grandchild patents were initially rejected and were granted only after they were amended. Global Tubing insists that these amendments, which add unrelated limitations (such as an austenitization cycle performed at 900 degrees Celsius or higher), were necessary to the patentability of the grandchild claims, and because those limitations are missing from the claims of the ’256, ’074, and ’075 patents, these latter claims never would have issued if the examiner had the CYMAX Documents. This view of the record may well be credited at trial. But at the summary judgment stage, we are obligated to credit the contrary reasonable view offered by Tenaris, as the nonmoving party.

3

Dr. Valdez testified that he believed Chitwood included all of the relevant information contained in the CYMAX Documents. He further explained that, in his view,

⁶ A magistrate judge recommended that the Stoll report be excluded, largely based on the view that “the Grandchildren patents are not at issue in this case” and are not “relevant to the issues in this dispute.” J.A. 19. The district court did not rule on Tenaris’ objection to this recommendation or otherwise weigh in on the magistrate judge’s relevance observation, as it was unnecessary to do so given its other conclusions. On appeal, we treat the Stoll report as part of the summary judgment record, as counsel for Global Tubing agreed we should. *See* Oral Arg. at 42:40-43:37, *available at* https://www.cafc.uscourts.gov/oral-arguments/23-1882_06062025.mp3. We express no view on the merits of Global Tubing’s motion to exclude the report.

Chitwood disclosed a broader chemistry than the CYMAX Documents and Chitwood's range came closer than CYMAX's to the specific chemistry of the '256 patent claims. While there is certainly record evidence that can reasonably be viewed as undermining Dr. Valdez's testimony,⁷ at the summary judgment stage the record here reveals a genuine dispute of material fact on this issue.

For this reason, as well, the district court should not have granted summary judgment of inequitable conduct. We vacate that judgment and remand for further proceedings.⁸

⁷ For instance, the record includes an email to Dr. Valdez from Dr. Bruce Reichert, a co-inventor of the '256 patent, stating that "the chemistries (page 30 for instance for CYMAX 100) . . . is essentially our chemistry for HS90 [i.e., the '256 patent]. I would not think there is enough carbon to be hardenable." J.A. 7656. Dr. Valdez replied, "I have the same observation." *Id.* At trial, the factfinder might conclude that Valdez's response indicates that he knew the CYMAX Documents disclosed the chemistry of the '256 patents. Alternatively, however, a reasonable interpretation of this same passage could be that Dr. Valdez was merely agreeing that the CYMAX formulation lacked sufficient carbon by weight to achieve the desired tensile strength.

⁸ Global Tubing also alleges inequitable conduct based on affirmative "egregious misconduct," which is conduct so severe it excuses the claimant from showing materiality of a withheld reference (although the claimant must prove that what was submitted to the PTO was "unmistakably false"). *Apotex Inc. v. UCB, Inc.*, 763 F.3d 1354, 1362 (Fed. Cir. 2014) ("[E]gregious misconduct [is] such that materiality could have been presumed."); see also *Therasense*, 649

IV

We turn next to Global Tubing's cross-appeal, which seeks to vacate the district court's grant of summary judgment to Tenaris on Global Tubing's *Walker Process* fraud claim. That claim accuses Tenaris of unlawfully attempting to monopolize the coiled tubing market through the fraudulent assertion of the '256, '074, and '075 patents. Here, again, we conclude that genuine disputes of material fact preclude summary judgment. Thus, we vacate the trial court's judgment.

A

"To succeed on a *Walker Process* claim, a plaintiff must prove (1) that the antitrust-defendant obtained the patent by knowing and willful fraud on the patent office and maintained and enforced that patent with knowledge of the fraudulent procurement, and (2) that the plaintiff can satisfy all other elements necessary to establish a Sherman Act monopolization claim." *Chandler*, 1 F.4th at 1014 (internal quotation marks omitted).

As to the first prong, "the showing required for proving inequitable conduct and the showing required for proving the fraud component of *Walker Process* liability may be nearly identical." *TransWeb, LLC v. 3M Innovative Proprs. Co.*, 812 F.3d 1295, 1307 (Fed. Cir. 2016). Here, although we have vacated the judgment of inequitable conduct, the record evidence could support a finding that Dr. Valdez withheld a material prior art reference from the PTO and did so with the intent to deceive that office. Global Tubing has demonstrated that a genuine dispute of material fact

F.3d at 1292. For the reasons we explained in connection with the specific intent element of Global Tubing's inequitable conduct claim, whether the Valdez Declaration is "unmistakably false" presents a genuine dispute of material fact not amenable to resolution at summary judgment.

exists with respect to the first prong of its *Walker Process* fraud claim.

With respect to the second prong, the elements necessary to prove an attempted monopolization claim under § 2 of the Sherman Act are “(1) that the defendant has engaged in predatory or anticompetitive conduct with (2) a specific intent to monopolize and (3) a dangerous probability of achieving monopoly power.” *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 456 (1993). The genuine disputes of material fact we outline below render summary judgment for Tenaris of no *Walker Process* fraud improper.

B

At the conclusion of oral argument on the *Walker Process* cross-motions, the district court announced its decision granting summary judgment to Tenaris, stating:

I’m going to have to grant the motion for summary judgment. I think that it would be legal error to hold that such a small market player [Tenaris] was engaged in attempted monopolization. I think the acts alleged as constituting an attempt at monopolization are insufficient to create a genuine issue of material fact.

J.A. 31191; *see also* J.A. 31151 (“I’m still troubled by the notion that a patent which gave rise to a suggestion of market domination would be a threat of monopoly power when the market player who had the patent was such a small percentage of the market.”).

“As a threshold issue in any monopolization claim, the court must identify the relevant market.” *IGT v. All. Gaming Corp.*, 702 F.3d 1338, 1344 (Fed. Cir. 2012). As specifically related to *Walker Process* fraud, “[t]o establish monopolization or attempt to monopolize a part of trade or commerce under § 2 of the Sherman Act, it [is] necessary to appraise the exclusionary power of the illegal patent claim in terms of the relevant market for the product involved.”

Walker Process, 382 U.S. at 177. “Without a definition of the relevant market, the anticompetitive effects of an improperly obtained patent are impossible to measure.” *Delano Farms Co. v. Cal. Table Grape Comm’n*, 655 F.3d 1337, 1351 (Fed. Cir. 2011); *see also Walker Process*, 382 U.S. at 177 (explaining “there is no way to measure” likelihood of monopoly without defining relevant market).

Identifying the relevant market requires determining both the relevant product and the relevant geography. *See Spectrum Sports*, 506 U.S. at 459 (“[D]emonstrating the dangerous probability of monopolization in an attempt case also requires inquiry into the relevant product and geographic market.”); *see also DSM Desotech Inc. v. 3D Sys. Corp.*, 749 F.3d 1332, 1339 (Fed. Cir. 2014) (“The relevant product market consists of all products that are reasonably interchangeable by consumers for the same purposes.”) (internal quotation marks omitted). “Definition of the relevant market is a question of fact.” *IGT*, 702 F.3d at 1344; *see also C.E. Servs., Inc. v. Control Data Corp.*, 759 F.2d 1241, 1245 (5th Cir. 1985) (describing “determination of relevant market” as inherently “fact-specific” exercise).

The parties here advanced competing market definitions. Global Tubing sought to define the relevant market narrowly, as limited to the United States and quenched-and-tempered coiled tubing. J.A. 5993-95 (“Q&T coiled tubing constitutes [the] relevant product market.”); J.A. 6010 (“[I]t is effectively a United States relevant geographic market.”). Tenaris, by contrast, proposed that the relevant market be defined as the global market for all types of coiled tubing, including conventional, quenched-and-tempered, and “stick pipe.” J.A. 5785-93. Both parties introduced evidence that, if credited by a reasonable jury, would support its market definition. *Compare, e.g.*, J.A. 5993-95 (Global Tubing expert opining that proper market is quenched-and-tempered coiled tubing sold in U.S.) *with* J.A. 5785-93 (Tenaris expert opining that proper market is worldwide market for quenched-and-tempered,

conventional, and “stick pipe” coiled tubing). The parties’ competing evidence as to the relevant product and geographic market created genuine disputes of material fact.

Rather than evaluate whether the contested record evidence revealed a genuine dispute of material fact, the district court determined that Tenaris is “a small market player” posing no dangerous probability of monopolizing the market. J.A. 31191. It did so without defining the relevant market, either in terms of product or geography, and without confirming the lack of a genuine dispute on these material issues.

The district court did not cite any authority, and we are aware of none, holding that an alleged attempted monopolist must hold a minimum market share in order for a Sherman Act violation to be proven. *See, e.g., Domed Stadium Hotel, Inc. v. Holiday Inns, Inc.*, 732 F.2d 480, 490 (5th Cir. 1984) (“[W]e must be particularly wary of the numbers game of market percentage when considering an attempt to monopolize suit.”) (internal quotation marks omitted); *see also C.A.T. Indus. Disposal, Inc. v. Browning-Ferris Indus., Inc.*, 884 F.2d 209, 211 (5th Cir. 1989) (per curiam) (“[T]he exact market share percentage necessary to prove an attempt to monopolize may vary under different market conditions.”). Given the genuine disputes as to the material facts of the relevant product and geographic markets, we are not persuaded that, as a matter of law, Tenaris’ alleged 29% market share is *per se* too small to create a “dangerous probability” that Tenaris might obtain a monopoly. *See Domed Stadium*, 732 F.2d at 490 (“[A] share of less than the fifty percent generally required for actual monopolization may support a claim for attempted monopolization if other factors such as concentration of market, high barriers to entry, consumer demand, strength of the competition, or consolidation trend in the market are present.”); *see also Dimmitt Agri Indus., Inc. v. CPC Int’l Inc.*, 679 F.2d 516, 533 n.18 (5th Cir. 1982) (“Relative to market share requisites for the completed monopolization offense,

minimum market shares for the attempt offense are much more unsettled.”).

C

There is a further genuine dispute as to the material fact of whether Tenaris “has engaged in predatory or anti-competitive conduct.” *Spectrum*, 506 U.S. at 456. Taking the evidence in the light most favorable to Global Tubing, a reasonable factfinder could find that Tenaris did so. One could reasonably reach this conclusion based on record evidence suggesting that Tenaris intended to sue Global Tubing for infringement of the (allegedly) fraudulently acquired ’256 patent.

A Global Tubing employee, Garry McClelland, testified in deposition that, at a trade show in 2017, Tenaris’ chief technology officer (and coinventor on the ’256 patent), Bruce Reichert, said to him: “I can tell you right now we’re probably going to court.” J.A. 10830. McClelland added that he was repeatedly asked by customers at that same show, “Are you getting sued? Are you being sued? What about Tenaris’ patent?” J.A. 10831. McClelland’s understanding was that “someone at Tenaris call[ed] [Global Tubing’s] DURACOIL a copycat” of BlueCoil. J.A. 10830.

There is also evidence that, around this same time in March 2017, preparations were being made at Tenaris to sue Global Tubing for infringement of the ’256 patent. *See, e.g.*, J.A. 10869 (Tenaris employees anticipating “future legal battle ahead” in connection with DURACOIL); J.A. 10873 (coinventor of ’256 patent proposing strategy for “defending [our] patent and reflect[ing] that we cover what [Global] do[es]”); *see also* J.A. 10874 (“[G]iven the permeability of this market and the speed at which those who copy move, we must make an effort to stop them with our [patent] rights.”).

Because a reasonable factfinder, taking the record evidence in the light most favorable to Global Tubing as the

non-movant, could find that Tenaris threatened and intended to sue Global Tubing on its patents, and could further find that those patent rights were obtained by committing fraud on the PTO, Tenaris was not entitled to a grant of summary judgment on the *Walker Process* fraud claim.

D

There may be yet another genuine dispute of material fact. This one relates to the proper date at which to measure Tenaris' share of the relevant market, however that market is defined. "[W]e look to the defendant's conduct and the market at the time the conduct occurred, rather than evaluating the conduct's effects after-the-fact." *Taylor Pub. Co. v. Jostens, Inc.*, 216 F.3d 465, 475 (5th Cir. 2000); *see also United States v. Am. Airlines, Inc.*, 743 F.2d 1114, 1118 (5th Cir. 1984) ("When evaluating the element of dangerous probability of success, we do not rely on hindsight but examine the probability of success at the time the acts occur."). Global Tubing argues that the district court wrongly evaluated Tenaris' market share as of 2019, after a third party, Quality Tubing, had entered the quenched-and-tempered coiled tubing market. According to Global Tubing, the court should have instead looked to the state of the market in 2017, when Tenaris' alleged misconduct – the assertion of its allegedly fraudulently-obtained patents – began. The district court may have to evaluate the merits of this argument on remand.

For at least these reasons, summary judgment should not have been granted to Tenaris on Global Tubing's *Walker Process* fraud claim.

V

We have considered the parties' remaining arguments and find them unpersuasive. Accordingly, we vacate the district court's grant of summary judgment to Global Tubing on its inequitable conduct claim, as well as the grant of

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summary judgment to Tenaris on Global Tubing's *Walker Process* fraud claim. We affirm the district court's denial of summary judgment to Tenaris of no inequitable conduct, since the evidence could support a finding of intent to defraud the PTO by withholding a material prior art reference. We remand for further proceedings consistent with this opinion.

**AFFIRMED-IN-PART AND VACATED-AND-
REMANDED-IN-PART**

COSTS

Each party to bear its own costs.