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INDEFINITENESS: AN ORPHANED DOCTRINE

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I. Introduction

Section 112, paragraph 2 requires that a patent's claims "particularly point out and distinctly claim . . ." the invention. Should that subsection be addressed during the infringement part of a lawsuit or during validity? Federal Circuit jurisprudence has grappled with what role, if any, the indefiniteness analysis plays once claims have been construed. Some cases hold that a claim is only indefinite if it cannot be construed, implying that no indefiniteness issue survives after construction. *See, e.g., Bancorp Servs. LLC v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1371 (Fed. Cir. 2005); *Exxon Res. & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). Another line of precedent permits a determination of indefiniteness to move forward during validity, even based on that construction. *See, e.g., Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1251 (Fed. Cir. 2008); *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1053 (Fed. Cir. 1989). This latter line of authority suggests that there is more to section 112, paragraph 2 than claim construction, but these cases do not directly address the former line of authority that proposes otherwise. The innumerable ways to describe and claim an invention make it difficult to extract uniform rules of law to guide applicants on definite claim scope. Where is the line?

Like claim construction, indefiniteness is based on what one of ordinary skill in the art would understand. Hence, resolution of these questions may have to wait until the Federal Circuit revisits whether claim construction truly is a pure legal question. *See Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 469 F.3d 1039 (2006) (denying petition for rehearing en banc). In

the meantime, the case law's uncertainty leaves applicants and litigants with several practical concerns.

A. Claim Construction or Validity – Where to Perform the Analysis

Decisions such as *Bancorp Services LLC v. Hartford Life Insurance Company* view the indefiniteness analysis as an outgrowth of claim construction. *See* 359 F.3d 1367, 1371 (Fed. Cir. 2005). Under this view, if a claim term can be construed, it is not indefinite, even though it may pose a difficult question of construction, or mean different things to different people. *Id.* Only when a court cannot adopt any narrowing construction may it conclude that a claim is indefinite. *Exxon Res. & Eng'g v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). Thus, the mere fact that parties disagree over the meaning of claim terms does not render them indefinite. *Id.* The claim term must be incapable of construction. This standard defers to the presumption of validity for issued patents, and instructs that in close cases, courts should conclude that claims are not indefinite. *Bancorp*, 359 F.3d at 1371. Accordingly, the definiteness requirement does not demand that claims be plain on their face, and will excuse imperfect drafting when the canons of construction can resolve ambiguity. *Personalized Media Communs., L.L.C. v. Int'l Trade Comm'n*, 161 F.3d 696, 705-06 (Fed. Cir. 1998). This line of cases is most consistent with characterizing indefiniteness as a purely legal question. *See id.* at 705 (holding that a “determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.”).

Older cases left room for argument that how one of ordinary skill understood a claim’s meaning was a question of fact. For example, in *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, the district court sent the indefiniteness question to the jury, who determined, based on expert testimony, that the term “so dimensioned” was not indefinite. 806 F.2d at 1565, 1575 (Fed. Cir.

1986). The district court rejected that determination and ultimately concluded as a matter of law that the disputed term was indefinite. *Id.* at 1575-76. In reversing the district court’s judgment, the Federal Circuit observed that the jury was entitled to credit the testimony of the patentee’s witnesses, who stated that one of ordinary skill would have been able to make the measurements required by the claim language easily. *Id.* at 1576. While noting that “[c]ompliance with the second paragraph of § 112 is *generally* a question of law,” the Federal Circuit did not rule out that expert testimony might be required and might even pose an issue for the jury. *Id.* (emphasis added). However, under the categorical view in *Personalized Media Communications* that indefiniteness is always a legal question, the district court in *Orthokinetics* should never have permitted the issue to reach the jury.

The recent *Halliburton* decision harkens back to those older cases, such as *Orthokinetics*, and takes a broader view of the indefiniteness doctrine than that espoused in *Bancorp*.

Halliburton holds that simply providing a definition for a claim term that is supported by intrinsic evidence does not resolve whether or not a claim satisfies section 112, paragraph 2. 514 F.3d at 1251. Instead, a district court must consider whether an ordinarily skilled artisan can translate that definition into a “meaningfully precise claim scope.” *Id.*¹ This suggests a two-step

¹ Earlier cases suggested a second analytical step after construction, but did not give that second step as much attention as *Halliburton* did. *See, e.g., Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1053 (Fed. Cir. 1989) (“[a]mbiguity, undue breadth, vagueness, and triviality are matters which go to claim validity for failure to comply with 35 U.S.C. § 112, ¶ 2, not to interpretation or construction.”). Several pre-*Halliburton* cases also held claims that had been construed by lower courts were indefinite despite their previous construction. *See Honeywell v. ITC*, 341 F.3d 1332, 1337 (Fed. Cir. 2003) (concluding that claims were indefinite despite the fact that administrative law judge had construed them); *Union Pac. Res. Co. v. Chesapeake Energy Co.*, 236 F.3d 684, 689, 692 (Fed. Cir. 2001) (holding claim indefinite after construing it; even when construed, the word “comparing” in claim did not convey the boundaries of the invention to one of ordinary skill in the art); *Standard Oil Co. v. Am. Cyanamid Co.*, 585 F. Supp. 1481, 1488, 1490-91 (E.D. La. 1984), *aff’d*, 774 F.2d 448, 453 (Fed. Cir. 1985) (holding claim indefinite after construing it; term “partially soluble,” while construed as “a significant and

analysis: (1) construction; and (2) determining whether the claim, as construed, is understandable to an ordinarily skilled artisan. The second step involves factual questions, requiring a court to consider an ordinarily skilled artisan's knowledge base and understanding of the claims. *See Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 469 F.3d 1039, 1041 (Fed. Cir. 2006) (Michel, J., dissenting) (characterizing “what the average artisan knew and how she thought about the particular technology when the patent claims were written” as “factual determinations”).

Under the *Bancorp* line of cases, by contrast, proposing a construction for a disputed term potentially waives indefiniteness arguments. However, refusing to propose constructions in order to preserve indefiniteness arguments risks that a district court will adopt the patentee's proposed constructions, all but guaranteeing an adverse infringement ruling. Hence, in a district court setting, determining whether to follow *Bancorp* and risk acquiescing to the patentee's claim construction could have dire consequences for an accused infringer: adverse claim construction, adverse infringement stipulation, leaving the case to hang on litigating validity at the clear and convincing level. *Halliburton* provides some comfort insofar as it suggests that simply because a term can be defined by resort to intrinsic evidence does not end the analysis. *See* 514 F.3d at 1251. However, *Halliburton* did not overrule the *Bancorp* line of cases, and, in fact, was careful to note at the outset that no “possible construction” of the claim could resolve the ambiguity. *See id.* at 1250.

Nor does *Halliburton* expressly embrace extrinsic evidence to show that an ordinarily skilled artisan cannot translate a construction into meaningfully precise claim scope. While the opinion makes several comparisons between the alleged invention and the prior art, the prior art

substantial degree of solubility,” was indefinite as being “too vague to ‘particularly point out and distinctly claim’ the subject matter of the invention as required by the second paragraph of § 112”).

used is described in the patent-in-suit’s specification, and is thus intrinsic evidence. *See, e.g.*, 514 F.3d at 1251-53. Extrinsic evidence could certainly be relevant and probative of whether an ordinarily skilled artisan could translate a construction into meaningfully precise claim scope. However, it may prove little use to patent challengers if, as *Bancorp* suggests, indefiniteness is simply part of claim construction. Under the canons of claim construction, extrinsic evidence is only consulted if intrinsic evidence does not provide clear meaning for a term. *Bancorp* implies that a district court should not examine such extrinsic evidence. *See* 359 F.3d at 1374. *See also Personalized Media Communs.*, 161 F.3d at 706.

B. What Level of Precision is Required? Reconciling *Halliburton* with *Exxon*

Regardless of how indefiniteness relates to claim construction, questions also exist about what level of precision is required in order for claims to be definite. Because such determinations are so particularized to the intrinsic evidence, the claim terms, and the art at issue, a certain amount of disparity should be expected. It would be difficult to try to extract a generic rule that would advance the analysis in all cases. However, an examination of *Halliburton* and *Exxon Research*, two cases involving method claims but reaching different conclusions on indefiniteness, may help illustrate factors that influence the indefiniteness analysis.

	<i>Halliburton</i>	<i>Exxon Research</i>
Disputed Term	“fragile gel”	“for a period sufficient to increase substantially the initial catalyst productivity”
Intrinsic Evidence	The specification defined a “fragile gel” as “a gel that is easily disrupted or thinned, and that liquifies or becomes less gel-like and more liquid-like under stress, such as caused by moving the fluid, but which quickly returns to a gel when the movement or	The specification provided that the goal of treatment was to increase catalyst productivity by at least 30%, which was usually achieved in about 0.25 to 24 hours, preferably in about 0.5 to 2 hours.

	<p>other stress is alleviated or removed, such as when circulation of the fluid is stopped, as for example when drilling is stopped.”</p> <p>Test data disclosed for the claimed fragile gel was identical to that displayed by at least one prior art gel. The specification disclosed that this same test data illustrated the invention’s superior properties over the prior art.</p>	<p>The amount of time necessary would vary with changes in the catalyst and operating conditions.</p>
Extrinsic Evidence		<p>One of skill in the art could conduct activity checks for a particular catalyst. This would disrupt the claimed method, but would provide reliable information for the next time that particular catalyst was treated. The government’s expert agreed that such checks were not difficult to do.</p>
Conclusion	Indefinite	Not indefinite

In comparing the two patents-in-suit, the description of the prior art is much more extensive in the *Halliburton* patent than in the *Exxon* patent. Compare U.S. Patent No. 6,887,332 (at issue in *Halliburton*) with U.S. Patent No. 5,292,705 (at issue in *Exxon*). The *Halliburton* patentee may have been a victim of its own attempt to describe the prior art thoroughly. Under a narrow reading of *Halliburton*, the real problem may have been that the specification told an ordinarily skilled artisan that its Figure 3 showed prior art gels with properties identical to the invention’s “fragile gel.” In this way, the specification failed to draw a line between the invention and the prior art.

The *Exxon* specification does disclose that “a period sufficient” could be anywhere between fifteen minutes and twenty-four hours. This range is not claimed, but the specification provides an ordinarily skilled artisan the information she would need to figure out how long to treat a catalyst – at least long enough to increase activity by at least 30 percent. While the specification in *Exxon* leaves the ordinarily skilled artisan with a lot to do in determining the scope of the claims (conducting activity checks on each catalyst under varying conditions), the claim scope is determinable. Based on the extrinsic evidence that an artisan could conduct activity checks, the specification’s definition (long enough to increase activity by at least 30 percent) can be translated into a “meaningfully precise” claim scope for a particular catalyst. Because of differences between catalysts and varying operating conditions, it is not possible for the specification to draw a single line between the prior art and the invention. But the specification shows an ordinarily skilled artisan how to draw that line for herself in an individual case, and that was enough.

The *Halliburton* and *Exxon* patentees appear to have adopted fundamentally different drafting approaches. *Halliburton*, perhaps in an attempt to stave off later novelty and obviousness challenges, repeatedly compared its invention to known prior art in its specification. *Exxon* does not make repeated comparisons, nor does it delve into detailed discussion of prior art processes. While taking a chance under sections 102 and 103, the *Exxon* patentee reduced the potential for inconsistencies in the specification and reduced the ability of others to use her own specification against her.² Under a regime where indefiniteness is a legal question, while 102 and 103 both pose factual questions, patentees following *Exxon*’s strategy would seem to have greater odds of forcing a trial.

² The authors are assuming that such a concise approach comported with the *Exxon* patentee’s obligation to disclose any known material prior art.

C. Under What Circumstances is it Prudent to Use Functional Language?

While their specifications took different approaches in describing the prior art, the patentees in *Halliburton* and *Exxon* both used functional language to describe the disputed claim terms: “fragile gel” and “for a period sufficient.” The *Halliburton* court noted that such language poses indefiniteness issues frequently, particularly when it is used at a point of novelty. *Halliburton* urges drafters to resolve ambiguities in functional language by using quantitative over qualitative metrics, or by providing a formula for calculating a property with examples that fall within and outside the claimed limitation. 514 F.3d at 1255-56. Such advice contrasts the Federal Circuit’s canons that claims need only be as precise as the subject matter permits, and that mathematical precision is not required to satisfy section 112, paragraph 2. *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 424 F.3d 1374, 1384 (Fed. Cir. 2005); *Orthokinetics*, 806 F.2d at 1575.

Halliburton’s advice might be difficult to follow for truly pioneer inventions, where the only way to describe an alleged invention is by what it does. Taking time to gather data necessary to support a more quantitative description might also forfeit an earlier filing date, often critical in competitive industries. A more narrow reading of *Halliburton*, though, illustrates why functional language was inappropriate in that case: according to Figure 3, the prior art gels and the invention’s “fragile gel” did the same thing. The use of functional language to claim the “fragile gel” did not set it apart from its closest prior art. Hence, *Halliburton* teaches when prior art compounds do something similar to the claimed compound, purely functional language may be problematic and should be corralled with structural limitations or multiple claims of varying breadths.

II. Conclusion

While the differences in the arts, intrinsic records, and claiming strategy make a global rule on indefiniteness impossible, defining indefiniteness as purely a legal question presents both

the IP owner and the defendant with several dilemmas: should the applicant claim broadly using functional language or risk not capturing the entire scope of her invention; should she make detailed comparisons to prior art in the patent specification; should the accused infringer propose constructions for indefinite claim terms in litigation or risk subjecting to the patentees' claim construction and forcing the fight at the validity stage under a higher burden of proof. Until the legal issues are resolved, these questions provide a framework for strategic analysis of indefiniteness issues.