

NOTE: This disposition is nonprecedential.

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

---

**U.S. WELL SERVICES, LLC,**  
*Appellant*

v.

**COKE MORGAN STEWART, ACTING UNDER  
SECRETARY OF COMMERCE FOR  
INTELLECTUAL PROPERTY AND ACTING  
DIRECTOR OF THE UNITED STATES PATENT  
AND TRADEMARK OFFICE,**  
*Intervenor*

---

2023-1799

---

Appeal from the United States Patent and Trademark  
Office, Patent Trial and Appeal Board in No. IPR2021-  
01316.

-----  
**U.S. WELL SERVICES, LLC,**  
*Appellant*

v.

**COKE MORGAN STEWART, ACTING UNDER  
SECRETARY OF COMMERCE FOR  
INTELLECTUAL PROPERTY AND ACTING**

**DIRECTOR OF THE UNITED STATES PATENT  
AND TRADEMARK OFFICE,**

*Intervenor*

---

2023-2106

---

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2022-00074.

---

Decided: March 13, 2025

---

MATTHEW JAMES DOWD, Dowd Scheffel PLLC, Washington, DC, argued for appellant. Also represented by ROBERT JAMES SCHEFFEL.

JUSTIN BOVA, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA, argued for intervenor. Also represented by PETER J. AYERS, AMY J. NELSON, FARHEENA YASMEEN RASHEED, KEVIN RICHARDS.

---

Before LOURIE, BRYSON, and REYNA, *Circuit Judges*.

LOURIE, *Circuit Judge*.

U.S. Well Services, LLC (“USWS”) appeals from the denials of its motions to amend in two final written decisions of the U.S. Patent Trial and Appeal Board (“the Board”). In the first decision, the Board found original claims 1–17 of U.S. Patent 10,280,724 (“the ’724 patent”) unpatentable and denied USWS’s motion to amend by adding proposed substitute claims 18–34. *Halliburton Energy Servs., Inc. v. U.S. Well Servs., LLC*, No. IPR2021-01316, 2023 WL 2597810 (P.T.A.B. Feb. 17, 2023) (“*1316 Decision*”). In the

second decision, the Board granted USWS’s request to cancel original claims 1–13 of U.S. Patent 10,254,732 (“the ’732 patent”) and denied USWS’s motion to amend by adding proposed substitute claims 14–26.<sup>1</sup> *Halliburton Energy Servs., Inc. v. U.S. Well Servs., LLC*, No. IPR2022-00074 (P.T.A.B. Apr. 27, 2023) (“’0074 Decision”), Appeal No. 23-2106, J.A. 1–37. The Board held that the term “high pressure” in all proposed substitute claims was indefinite. We *affirm*.

The ’724 and ’732 patents are generally directed to hydraulic fracturing equipment for hydrocarbon extraction. While the patents are directed to different specific subject matter, they share a common thread—the proposed substitute claims all contain a substantially similar limitation including the term “high pressure.” The below portion of proposed substitute claim 18 of the ’724 patent is representative for the indefiniteness issue on appeal:

18. . . . A hydraulic fracturing system for fracturing a subterranean formation comprising:

an electric pump fluidly connected to a well associated with the subterranean formation, and configured to pump fluid into a wellbore associated with the well at *a high pressure* so that the fluid passes from the wellbore into the subterranean formation and fractures the subterranean formation; . . . .

’1316 Decision, at \*22 (emphasis added).

---

<sup>1</sup> Appeal No. 2023-1799 (relating to the ’724 patent) and Appeal No. 2023-2106 (relating to the ’732 patent) were briefed separately. Because the issues across the appeals largely overlap, we address both together. Unless otherwise indicated, we cite the Board’s decision on review and the parties’ briefings in the 2023-1799 appeal.

USWS argues that the Board erred in finding the term “high pressure” indefinite. Specifically, USWS argues (1) that the claims only require a pressure sufficiently high to “fracture[] the subterranean formation,” not a specific range, USWS Br. 35–37, (2) that extrinsic evidence shows “high pressure” is a common term in hydraulic fracturing, *id.* at 37–42, (3) that electric pumps configured to operate at “a high pressure” were well known and not the asserted advance, *id.* at 42–48, and (4) that the Board overlooked relevant case law, *id.* at 32–34, 49–55.

The United States Patent and Trademark Office (“USPTO”)<sup>2</sup> responds that the Board correctly found the claims indefinite. Specifically, the USPTO argues (1) that the claim language does not provide objective boundaries for a skilled artisan, Halliburton Br. 20–21, (2) that the extrinsic evidence does not provide objective boundaries for “high pressure,” *id.* at 22–24, (3) that terms not directed to the asserted advance may still render a claim indefinite, *id.* at 25–26, and (4) that USWS’s cited cases do not support its position, *id.* at 21–22, 26–30. We agree with the USPTO.

A claim is indefinite when it “fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). Given the specific facts of these cases, the ambiguity of the term “high pressure,” as used in the claims, renders the proposed substitute claims indefinite. USWS admitted that hydraulic fracturing can be performed at pressures other than high pressure, such as “medium pressure.” *’1316 Decision*, at \*28. That admission diminishes any clarity offered by the claim language

---

<sup>2</sup> After briefing was complete, Halliburton Energy Services, Inc. (“Halliburton”) entered a notice of non-participation in both cases. The USPTO intervened relying on the briefs previously filed by Halliburton.

itself because a pressure sufficient to “fracture[] the subterranean formation” is admittedly broader than just “high pressure” to a person of ordinary skill. Furthermore, in the face of that admission, the specification similarly fails to inform a person of ordinary skill, with reasonable certainty, of the boundaries of “high pressure” in the context of the invention. *See* ’724 *patent*, col. 2 ll. 48–57 (reciting similar “fractures the subterranean formation” language). Importantly, USWS’s own experts expressly disagreed over the range of pressures that a person of ordinary skill would consider to be “high pressure”; one expert testified that a person of skill in the fracking industry would “definitely think high pressure is 5,000 to 15,000,” while the other testified that “it’s agreed upon that 8,000 to 12,000 psi is high pressure,” but that it is not generally agreed upon that 5,000 psi is high pressure. *Compare* J.A. 3365–66 *with* J.A. 3727; *see also* ’1316 *Decision*, at \*29–30 (discussing USWS’s experts’ disagreement on the generally agreed upon pressure range for high pressure hydraulic fracturing). The Board found that testimony to demonstrate a lack of any “clear boundaries for how an ordinarily skilled artisan would interpret ‘high pressure.’” ’1316 *Decision*, at \*30. Those conclusions regarding the extrinsic evidence are supported by substantial evidence. *See Mass. Inst. of Tech. v. Shire Pharms., Inc.*, 839 F.3d 1111, 1123–24 (Fed. Cir. 2016). For the reasons stated above, we see no error in the Board’s determination that “high pressure” is indefinite.

Because we affirm the Board’s indefiniteness determinations, we need not address USWS’s additional arguments regarding written description.

We have considered USWS’s remaining arguments and find them unpersuasive. For the foregoing reasons, we *affirm* the final written decisions of the Board.

**AFFIRMED**