UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FLOWCO PRODUCTION SOLUTIONS, LLC, Petitioner,

v.

WELL MASTER CORPORATION, Patent Owner.

> IPR2022-01384 Patent 7,793,728 B2

Before JAMES P. CALVE, PATRICK R. SCANLON, and ERIC C. JESCHKE, *Administrative Patent Judges*.

JESCHKE, Administrative Patent Judge.

DECISION Denying Institution of *Inter Partes* Review 35 U.S.C. § 314

I. BACKGROUND

Petitioner, Flowco Production Solutions, LLC, filed a Petition to institute *inter partes* review of claims 1–16 (the "challenged claims") of U.S. Patent No. 7,793,728 B2 (Ex. 1001, "the '728 patent"). Paper 1 ("Pet."). Patent Owner, Well Master Corporation, filed a Preliminary Response. Paper 6 ("Prelim. Resp.").

We have authority to determine whether to institute *inter partes* review. *See* 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (2022) ("The Board institutes the trial on behalf of the Director."). *Inter partes* review may not be instituted "unless . . . the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314. Upon consideration of the evidence and arguments in the record, for the reasons below, we determine that the information presented does not show a reasonable likelihood that Petitioner would prevail with respect to at least one of the challenged claims. We thus deny institution of *inter partes* review. *See* 37 C.F.R. § 42.108(b) ("At any time prior to a decision on institution of *inter partes* review, the Board may deny all grounds for unpatentability for all of the challenged claims. Denial of all grounds is a Board decision not to institute *inter partes* review.").

A. Related Proceedings

The parties identify a proceeding in the U.S. District Court for the District of Colorado involving the '728 patent: *Well Master Corporation v. Flowco Production Solutions, LLC*, No. 21:cv-02145-CMA-KLM (D. Colo.), filed August 9, 2021 (the "Colorado Litigation"). Pet. 1; Paper 5

at 2. The Colorado Litigation also involves U.S. Patent No. 7,395,865 B2 ("the '865 patent") and U.S. Patent No. 8,627,892 B2 ("the '892 patent").

Petitioner also filed petitions for *inter partes* review of (1) claims 1– 17 of the '865 patent in IPR2022-01385 and (2) claims 1–11, 13, 15, 16, 18– 21, 23, and 24 of the '892 patent in IPR2022-01386. *See* IPR2022-01385, Paper 1; IPR2022-01386, Paper 1. We denied institution in IPR2022-01386 on January 6, 2023. Concurrent with the denial of institution in this proceeding, we deny institution in IPR2022-01385.

B. The '728 Patent

The '728 patent relates to "[a] plunger in a plunger lift system in an oil and gas well." Ex. 1001, codes (54), (57). According to the '728 patent, "[p]lunger lift systems are artificial lift systems for oil and gas wells" that "allow liquid to flow upward during the time the well valve is closed." *Id.* at 1:17–18, 3:18–19. Specifically, the '728 patent discloses a plunger that "includes shaped grooves spaced along the plunger body," which "improve[] plunger seal and decrease[] liquid loss during plunger lift." *Id.* at code (57). Additionally, the '728 patent discloses that its plunger design includes "flutes or fins [to] spin the plunger to clean the tubing string and prevent the plunger from becoming stuck in the lubricator." *Id.*

Figures 1 and 2 are reproduced below:



Figure 1 depicts a side view of a plunger embodying the features of the '728 patent and Figure 2 depicts a vertical cross section of the plunger of Figure 1 along line 2-2. Ex. 1001, 2:66–3:2. Plunger 9 includes a cylindrical, elongated plunger body 10 with a fishing neck portion or top

portion 11 at the top, a lower portion 12 at the bottom, and an intermediate portion 14 between the top and bottom portions 11 and 12 (respectively). *Id.* at 3:10–17. The plunger body 10 has an elongated, cylindrical interior cavity 20 that extends upwardly from bottom 19 of plunger body 10 through intermediate portion 14, and interior cavity 20 is open at bottom 19. *Id.* at 3:38–41. Additionally, spaced sets 21 of passages 22 extend from the interior cavity 20 to grooves 15. *Id.* at 3:42–43. "The shape of the grooves 15 creates a turbulent flow region that inhibits liquid" from flowing downward and inhibits gas from flowing upward.¹ *Id.* at 4:4–10.

Figure 3 is reproduced below:



Fig. 3

Figure 3 depicts a horizontal cross-section of the plunger from Figure 1 taken along line 3-3 and depicts the interior of the plunger. Ex. 1001, 3:3–

¹ In this Decision, we omit emphasis on reference numerals and claim numbers in quotations from the '728 patent and prior art references.

4. Depicted are eight radial passages 22 and tangentially directed passageway 22p, which "helps rotate the plunger 9 about its longitudinal axis 'L' to give the plunger 9 a 'pinwheel' effect and help with rotation and turbulence simultaneously." *Id.* at 3:46–62.

C. Challenged Claims

Petitioner challenges claims 1–16, of which claims 1, 7, and 11 are independent. Claims 2–6 depend from claim 1, claims 8–10 depend from claim 7, and claims 12–16 depend from claim 11. Independent claim 1 is reproduced below, reformatted from the version provided in the '728 patent and with bracketed alphanumerical designations added to identify each clause:

1. [1p] A plunger for moving up and down in a tubing string in a plunger lift system for an oil and gas well, said plunger having a gas seal arrangement comprising:

[1a] an elongated plunger body having an upper end and a lower end, said plunger having a longitudinal axis, with a plurality of grooves spaced apart on an outer surface of said plunger body;

[1b] a longitudinal bore arranged within said plunger, extending from an opening in said lower end of said plunger; and

[1c1] at least one fluid passageway extending from said bore to at least one of said grooves in said outer surface of said plunger body, [1c2] to permit gas flow therethrough to direct a turbulent flow of fluid about said plunger, [1c3] the at least one fluid passageway arranged tangentially with respect to the bore in the plunger.

Ex. 1001, 4:43–57.²

² We adopt Petitioner's designations for the elements of the challenged claims. *See, e.g.*, Pet. 19–25 (showing alphanumerical designations for the language in challenged claim 1).

D. Asserted Grounds of Unpatentability

Petitioner challenges claims 1–16 on the following grounds:

Claim(s) Challenged	35 U.S.C. § ³	Reference(s)/Basis
1–16	103(a)	Victor, ⁴ Yerian ⁵
1–16	103(a)	Victor, Yerian, Davis ⁶

Petitioner did not submit any declarations in support of the Petition. Patent Owner relies on the Declaration of Mr. David Cosby, P.E. Ex. 2001.

II. DISCUSSION

A. The Level of Ordinary Skill in the Art

The level of ordinary skill in the art is "a prism or lens" through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). The person of ordinary skill in the art is a hypothetical person presumed to have known the relevant art at the time of the invention. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). In determining the level of ordinary skill in the art, we may consider certain factors, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made;

³ The Leahy-Smith America Invents Act ("AIA") included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. Pub. L. No. 112-29, §§ 3(c), 3(n)(1), 125 Stat. 284, 287, 293 (2011). Because there is no dispute that the challenged claims of the '728 patent have an effective filing date before March 16, 2013, we apply the pre-AIA version of this statute.

⁴ US 7,475,731 B2, issued January 13, 2009 (Ex. 1004, "Victor").

⁵ US 4,410,300, issued October 18, 1983 (Ex. 1005, "Yerian").

⁶ US 7,011,158 B2, issued March 14, 2006 (Ex. 1006, "Davis").

sophistication of the technology; and educational level of active workers in the field." *Id.* (internal quotation marks and citation omitted).

Petitioner contends that a person having ordinary skill in the art at the time of the alleged invention "would have [had] at least a bachelor's degree in physics or an appropriate engineering discipline, as well as at least three years of experience in designing well plungers." Pet. 7.

Patent Owner "does not dispute" Petitioner's proposed definition of the level of ordinary skill in the art, which appears consistent with the current record, including the prior art. *See* Prelim. Resp. 11; *GPAC Inc.*, 57 F.3d at 1579. For purposes of this Decision, we adopt the definition of the level of ordinary skill in the art proposed by Petitioner.

B. Claim Construction

In *inter partes* reviews, the Board interprets claim language using the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b), as described in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b). Under that standard, we generally give claim terms their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1313–14. Although extrinsic evidence, when available, may also be useful when construing claim terms under this standard, extrinsic evidence should be considered in the context of the intrinsic evidence. *See id.* at 1317–19.

Petitioner "proposes that all claim terms be given their ordinary and customary meanings and that no explicit constructions are necessary." Pet. 8. Patent Owner does not dispute that position. *See* Prelim. Resp. 11.

We need not construe explicitly any claim terms because doing so would not change the outcome of the analysis below. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating that "we need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. Effective Filing Date of the Challenged Claims

The '728 patent lists as related nonprovisional application No. 11/350,367 (which issued as the '865 patent), and provisional application No. 60/593,914 ("the '914 provisional"), filed February 24, 2005. *See* Ex. 1001, codes (60), (62). Petitioner asserts that the challenged claims are not entitled to the filing date of the '914 provisional "because the provisional application does not provide an enabling disclosure of the challenged claims." Pet. 3. Petitioner also argues that "[t]he Board need not reach the issue of the priority date of the '728 patent if Victor is determined to validly claim priority to its provisional application, as Victor would therefore be prior art as of the earliest possible priority date for all claims under 35 U.S.C. § 102(e)." Pet. 6. Because we determine that the Petition fails to show a reasonable likelihood of success as to any challenged claim *even assuming* that Victor is prior art to the challenged claims, we need not address the effective filing date of the challenged claims.

D. Asserted Obviousness of Claims 1–16 Based on Victor and Yerian

Petitioner asserts that claims 1–16 of the '728 patent would have been obvious under 35 U.S.C. § 103(a) based on Victor and Yerian. Pet. 4, 8–46.

Patent Owner provides arguments addressing this asserted ground. Prelim. Resp. 17–38. We first summarize aspects of the relied-upon prior art.

1. Victor

Victor discloses a "sand plunger" device comprising "radial peripheral holes extending outwardly from a center core to an outer surface through which a downhole gas may pass to clear an obstruction on the outer surface of the plunger, thereby enabling a self-cleaning action." Ex. 1004, codes (54) (capitalization omitted), (57). Further, Victor discloses a "self-cleaning plunger apparatus for use in a sand-bottom well" that "will lift sand away from a well bottom during the plunger lift" and "rise to the well top where it cleans itself," thereby allowing "accumulated sand to be blown away from its sides and taken downstream for further separation and cleanout." *Id.* at 4:14–22.



Figures 3 and 4 of Victor are reproduced below:

Figure 3 depicts a side view of one disclosed embodiment that shows the plunger with a "solid ring sidewall geometry." Ex. 1004, 5:14–16. Figure 4 depicts a longitudinal cross-sectional view of the plunger shown in Figure 3. *Id.* at 5:17–18. The plunger of Figures 3 and 4 has a bottom entry 34 through which gas passes into central inner core 35 before exiting out through radial clean out holes 32 when the plunger is at the top of the well. *Id.* at 5:50–56. Victor discloses that the plunger accumulates sand within its annular grooves 30 while water accumulates above the plunger. *Id.* at 7:1–4. When the well is opened, the plunger rises upwardly through the well

tubing, pushing water up and carrying accumulated sand with the plunger. *Id.* at 7:5–9. Victor discloses that once the system catches the plunger at the top of the well, the plunger begins the self-cleaning process in which gas passes through the bottom of the plunger, creating a "'venturi[-]tube' effect" that functions to blow sand out and away from the grooves of the plunger. *Id.* at 7:10–24.

Figure 5 is reproduced below:



Figure 5 depicts an alternative embodiment of Victor's sand plunger, this one having "a double symmetry design." Ex. 1004, 6:33–34. The embodiment of Figure 5 includes a bottom half having solid rings 22A with

an upward slanted surface 24 and an upper half with solid rings 23 having a downward slanted surface. *Id.* at 6:34–37. Victor discloses that "[t]he design of the upper half acts to trap gas whereas the lower half acts to scrape the tubing sidewall as the plunger rises." *Id.* at 6:38–39. Victor further discloses that the embodiment of Figure 5 has radial holes 32A positioned at an approximately 45-degree angle to the radial axis instead of the 90-degree angle of the device in Figures 3 and 4 and that the radial holes could be manufactured at various other angles and still provide self-cleaning action. *Id.* at 6:45–54.

2. Yerian

Yerian discloses "[a] free piston rabbit for an oil and gas well having gas seal and rotation features which improve its operation, reliability and durability." Ex. 1005, code (57). Yerian further discloses that the free piston has "[c]ircumferential grooves on the body," which create "a turbulence-inducing configuration" to "improv[e] their gas-sealing capacity," and "helically oriented slots," which "develop rotation of the body of the rabbit." *Id*. Yerian discloses that these features "reduce the risk that the rabbit will become lodged in the production pipe and to improve its sealing capacity by hydrodynamic fluid action." *Id*.

Figure 2 of Yerian is reproduced below:



Figure 2 depicts a side view of the disclosed free piston rabbit. Ex. 1005, 2:23–24. The depicted free piston includes "an elongated generally circular solid body" that is "machined or otherwise fabricated of steel" and the body is characterized by a series of cylindrical lands 26 of equal diameter interrupted by a series of circumferential grooves 27. *Id.* at 2:52–67. Yerian discloses that the structure of its disclosed device "is highly

efficient in sealing against gas flow through the clearance between it and the interior wall of the production pipe 12," that the "grooves 27 primarily function collectively as a labyrinth-type seal," and that "each groove 27 and land 26 tend[] to divide up the total pressure differential across the upper and lower faces of the rabbit 21." *Id.* at 3:49–56. Yerian further discloses that "conical surfaces 28" may "deflect gas streams hugging the exterior of the rabbit 21 inwardly which streams then set up pockets of turbulence that extend into the clearance space between the rabbit and pipe bore." *Id.* at 3:56–61. The device also includes depicted open-faced grooves or slots 33. *Id.* at 3:14–22.

3. Analysis

For all of the challenged claims, Petitioner contends that the proposed combination of Victor and Yerian discloses each limitation. Pet. 16–46. Among other arguments, Patent Owner challenges Petitioner's articulated reasons to combine Victor and Yerian. *See* Prelim. Resp. 17–19, 21–24, 34–35. For the reasons below, we determine that the Petition does not show a reasonable likelihood that Petitioner would prevail in demonstrating that any of the challenged claims would have been obvious based on Victor and Yerian.

The Petition includes a section addressing why one of ordinary skill in the art would have allegedly combined Victor with Yerian as proposed. *See* Pet. 16–18. Specifically, Petitioner begins by stating that one of ordinary skill in the art "would have been motivated to combine the cleaning and sealing improvements of Victor with at least the sealing improvement reduced sticking of Yerian" and contends that "[i]t was known that existing hydrocarbon well plungers had significant problems with getting stuck and

inefficient sealing." Pet. 16 (citing Ex. 1004, 2:42–4:10; Ex. 1005, 1:19– 56). According to Petitioner, "[b]oth Victor and Yerian were directed at addressing these common problems." Pet. 16–17 (discussing Ex. 1004, 3:51–68, 5:37–6:54, 7:33–41, Fig. 1A).

As noted by Patent Owner, however, the mere fact that two references may address the same or similar problems is not adequate to demonstrate motivation to combine, even at this stage of the proceeding. See PO Resp. 21-23; see also Wyers v. Master Lock Co., 616 F.3d 1231, 1238 (Fed. Cir. 2010) (concluding that prior art padlocks were analogous art because they "were clearly directed toward the same problem the inventor was trying to solve in the" patent at issue); Johns Manville Corp. v. Knauf Insulation, Inc., IPR2018-00827, Paper 9 at 10–11 (PTAB Oct. 16, 2018) (Decision Denying Institution) (informative) ("Demonstrating that a reference is analogous art or relevant to the field of endeavor of the challenged patent is not sufficient to establish that one of ordinary skill would have had reason to combine its teachings with other prior art in the manner set forth in the claim."). Even so, Patent Owner provides persuasive argument and evidence through its expert, Mr. Cosby, that Victor and Yerian address very different problems and solve these problems in very different ways. See Prelim. Resp. 23-27 (citing Ex. 2002 ¶¶ 56–100). Petitioner's conclusory attorney arguments do not address these differences and how they would impact the motivation to combine the teachings of Victor and Yerian, despite these differences.

Instead, Petitioner provides the following discussion as to benefits allegedly present in the context of the proposed combination:

A POSITA would have recognized that Victor's and Yerian's improvements, both individually effective, would be compatible with each other, and that the combination would provide enhanced performance. Inducing rotation as disclosed by Yerian would improve upon Victor's already improved sealing and self-cleaning abilities, in addition to better cleaning the inside of the tubing string to further prevent the plunger from getting stuck. Further, that combination could be accomplished with the straight-forward and relatively simple to manufacture addition of a few of Yerian's helical slots to the plunger described in Victor, making the combination easy to produce without adding significant cost or complexity to the device.

Pet. 17–18. Patent Owner argues that these asserted reasons to combine are "merely superficial" and that they do not adequately explain why one of ordinary skill in the art would have performed the proposed combination. PO Resp. 23–24. We agree.

"To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness." In re Magnum Oil Tools Int'l, Ltd., 829 F.3d 1364, 1380 (Fed. Cir. 2016). Although Petitioner's discussion above mentions alleged "enhanced performance" and "improved sealing and selfcleaning abilities" of the combination (Pet. 17), the discussion is not supported by any evidence of record. Instead, the assertion that the listed benefits would be present in the proposed combination is mere attorney argument. See Elbit Sys. of Am., LLC v. Thales Visionix, Inc., 881 F.3d 1354, 1359 (Fed. Cir. 2018) (rejecting attorney argument as to the alleged understanding of one of skill in the art on an issue when no evidence was presented); see also Icon Health & Fitness, Inc. v. Strava, Inc., 849 F.3d 1034, 1043 (Fed. Cir. 2017) ("Attorney argument is not evidence."). We determine that Petitioner does not adequately show a reasonable likelihood of prevailing on this issue at trial, if one were instituted.

Petitioner also provides this discussion at the end of the section on the reasons to combine Victor with Yerian:

The combination of Yerian with Victor represents the combination of known elements found in a known device to achieve known and predictable results. The disclosures of Yerian and Victor were directed to providing a solution to a similar problem that arises in the same context. Further, the disclosures of Yerian and Victor are compatible with each other and would be combined by [one of ordinary skill in the art] in an effort to improve the performance of the Victor design. The combination is therefore motivated and proper.

Pet. 18. We determine that these statements are inadequate to show a reasonable likelihood of prevailing on this issue because these conclusory statements (many of which essentially track language in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007)) are not adequately supported by the record. For example, Petitioner has not adequately supported, with evidence of record (such as declaration testimony), the assertion that the proposed modification would have "improve[d] the performance of the Victor design" as alleged. Pet. 18; *In re Magnum Oil Tools*, 829 F.3d at 1380. As discussed above, Patent Owner and its expert, Mr. Cosby, have provided unrebutted, persuasive evidence and argument that it would not.

Lastly, in a section summarizing Yerian, Petitioner highlights disclosures as to alleged benefits of the rotation caused by helical slots 33. *See* Pet. 15–16 (citing Ex. 1005, 1:65–2:17, 3:49–63, 4:8–23). As an initial matter, Petitioner does not mention these disclosures in the section addressing the motivation to combine Victor and Yerian. *See* Pet. 16–18. Moreover, to the extent Petitioner seeks to rely on the statements in Yerian as providing an express motivation for the proposed modification, Petitioner again provides only attorney argument as to how one of ordinary skill in the art would allegedly have understood those statements. *See* Pet. 16 (first full paragraph); *Elbit Sys.*, 881 F.3d at 1359; *Icon Health*, 849 F.3d at 1043.

For the reasons above, we determine, based on the current record, that the Petition does not show a reasonable likelihood that Petitioner would prevail in demonstrating that any of the challenged claims would have been obvious based on Victor and Yerian.

E. Asserted Obviousness of Claims 1–16 Based on Victor, Yerian, and Davis

Petitioner asserts that claims 1–16 of the '728 patent would have been obvious under 35 U.S.C. § 103(a) based on Victor, Yerian, and Davis. Pet. 4, 46–53. Patent Owner provides arguments addressing this asserted ground. Prelim. Resp. 17–46. We first summarize aspects of Davis.

1. Davis

In this asserted ground, Petitioner relies on Davis, in addition to Victor (summarized above (*see* § II.D.1)) and Yerian (summarized above (*see* § II.D.2)). Davis discloses a device "connected to the downhole end of a tubing string for cleaning and flushing wells." Ex. 1006, code (57). The device may include "at least one primary jet to direct circulating gases toward the downhole end of the well," wherein the "flow through [the] primary jet . . . scour[s] unwanted material from below the tool." *Id.* at code (57), 2:28–30. Davis further discloses the device may contain "a plurality of secondary jets which are arranged around the exterior of the tubular member and directed upwardly at an acute angle" wherein the flow through the secondary jets "lift[s] the unwanted material to the surface" after the primary jet scours the material. *Id.* at code (57), 2:30–32. The secondary jets may be

"skewed at an angle opposed to the axial thread direction, so that the tendency is to tighten the threaded connections." *Id.* at 2:39–44.

Figure 3 of Davis is reproduced below:



Figure 3 depicts a cross-sectional view of an embodiment of Davis. Ex. 1006 at 3:50–51. Figure 3 depicts the described device 10 as it is connected to the hollow tubular carrier 12 through threaded connections 16

and 20. *Id*. at 3:64–67. Also depicted are primary jet orifice 32 and secondary jet orifices 24. *Id*. at 4:2–13.

2. Analysis

For all of the challenged claims, Petitioner contends that the proposed combination of Victor, Yerian, and Davis discloses each limitation. Pet. 48–51. For the reasons below, we determine that the Petition does not show a reasonable likelihood that Petitioner would prevail in demonstrating that any of the challenged claims would have been obvious based on Victor, Yerian, and Davis.

In the context of this asserted ground, Petitioner discusses why one of ordinary skill in the art would have allegedly "add[ed] Davis to the combination of Yerian and Victor." Pet. 48; *see also* Pet. 48–49 (presenting the "Motivation to Combine Davis with Victor and Yerian" (emphasis omitted)). In other words, for this asserted ground, Petitioner relies on the discussion from the *prior* asserted ground (based on Victor and Yerian) as to the reasons to combine Victor and Yerian. *See* Pet. 48–49. Thus, this asserted ground includes the same deficiency discussed above as to the prior asserted ground in that Petitioner has not adequately shown a reason to combine Victor and Yerian. *See* § II.D.3. Accordingly, we determine that the Petition does not show a reasonable likelihood that Petitioner would prevail with respect to the contention that any of claims 1–16 would have been obvious based on Victor, Yerian, and Davis.

III. CONCLUSION

For the reasons above, we determine that the Petition does not show a reasonable likelihood that Petitioner would prevail with respect to at least one of challenged claims 1–16 of the '728 patent.

IV. ORDER

Accordingly, it is hereby:

ORDERED that the Petition is denied as to all challenged claims, and no *inter partes* review is instituted.

FOR PETITIONER:

Adam Yowell Jason Mueller FISHERBROYLES, LLP adam.yowell@fisherbroyles.com jason.mueller@fisherbroyles.com

FOR PATENT OWNER:

Benjamin Lieb TALUS LAW GROUP LLC ben@taluslaw.com

Richard E. Zelenka CRITICAL PATH IP LAW rick@criticalpathiplaw.com