

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LIBERTY ENERGY INC. AND LIBERTY ENERGY SERVICES LLC
Petitioners,

v.

U.S. WELL SERVICES, LLC
Patent Owner.

Case No. IPR2025-00139
Patent 11,208,878

**PETITIONERS' REPLY TO
PATENT OWNER'S PRELIMINARY RESPONSE**

UPDATED EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 11,208,878 to Jared Oehring <i>et al.</i> , “Modular switchgear system and power distribution for electric oilfield equipment” (the “’878 Patent”), filed October 9, 2019, issued on December 28, 2021.
1002	File History for U.S. Patent No. 11,208,878.
1003	Declaration of Dr. Robert Durham
1004	U.S. Patent Publication No. 2020/0040705 to Morris <i>et al.</i> , “Switch gear transport that distributes electric power for fracturing operations” (“ <i>Morris</i> ”), filed July 24, 2019, published on June 14, 2022, and claiming priority to a <i>Morris Provisional</i> filed on August 1, 2018.
1005	U.S. Provisional Application No. 62/713,393 to Morris <i>et al.</i> , “Electric Drive Pump for Well Stimulation,” (“ <i>Morris Provisional</i> ”) filed August 1, 2018.
1006	U.S. Patent Publication No. 2017/0222409 to Oehring <i>et al.</i> , “Switch gear load sharing for oil field equipment” (“ <i>Oehring IV</i> ”), filed April 4, 2017, published August 3, 2017.
1007	Schneider Premset Catalog (“ <i>Premset Catalog</i> ”), available May 3, 2017.
1008	Schneider Premset Brochure (“ <i>Premset Brochure</i> ”), available May 4, 2014.
1009	NFPA 70®, The National Electric Code®, issued July 16, 2004.
1010	PCT International Patent Publication No. WO 2018/201118 to Orban <i>et al.</i> , “Integrated power and electronics unit for drilling machine” (“ <i>Orban</i> ”), filed April 30, 2018, published November 1, 2018.
1011	U.S. Patent No. 5,042,756 to Robert Pratt, “Flip-flop cable tray walkway” (“ <i>Pratt</i> ”), filed March 20, 1990, issued on August 27, 1991.
1012	U.S. Patent Publication No. 2016/0273328 to Jared Oehring, “Cable Management of Electric Powered Hydraulic Fracturing

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	Pump Unit” (“ <i>Oehring II</i> ”), filed May 3, 2016, and published on September 22, 2016.
1013	U.S. Patent Publication No. 2016/0258267 to Payne <i>et al.</i> , “Well Fracturing Systems with Electrical Motors and Methods of Use,” filed Mar. 3, 2016, published September 8, 2016.
1014	U.S. Patent Publication No. 2016/0105022 to Jared Oehring, “System and Method for Parallel Power and Blackout Protection for Electric Powered Hydraulic Fracturing” (“ <i>Oehring III</i> ”), filed October 13, 2015, and published on April 14, 2016.
1015	U.S. Provisional Patent Application 62/743,360, Jared Oehring <i>et al.</i> , “Automated Fracturing Pump System”, filed October 9, 2018.
1016	U.S. Provisional Patent Application 62/743,299, Jared Oehring <i>et al.</i> , “Modular Switchgear System and Power Distribution for Electric Oilfield Equipment”, filed October 9, 2018.
1017	Complaint, <i>U.S. Well Services, LLC et al. v. Liberty Energy, Inc. et al.</i> , No. 4:24-cv-00839 (S.D. Tex. March 6, 2024)
1018	Plaintiff’s Motion for Leave to File the Second Amended Complaint, <i>U.S. Well Services et al. v. Liberty Energy Inc. et al.</i> , No. 4:24-cv-00839, Dkt. No. 46 (S.D. Tex. Sept. 19, 2024).
1019	<i>Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation</i> (June 21, 2022)
1020	Federal Court Management Statistics (June 30, 2024), available at < https://www.uscourts.gov/sites/default/files/data_tables/fcms_na_appprofile0630.2024.pdf >
1021	NFPA 70 Trademark Specimen filed October 10, 2007, Trademark Reg. No. 78913310.
1022	Michael Eves, <i>SF6 Alternatives: A Literature Review on SF6 Gas Alternatives for use on the Distribution Network</i> , April 11, 2018.

Exhibit No.	Description
1023	Affidavit of Christopher Butler, Internet Archive regarding EX1007 and EX1008
1024	Affidavit of Christopher Butler, Internet Archive regarding ABB URLs.
1025	Declaration of Michael Eves.
1026	Intentionally Omitted
1027	PREMSET Trademark Registration No. 87032738, Statement of Use and Specimen, dated February 14, 2018.
1028	Claim Listing for Claims of U.S. Patent No. 11,208,878 to Jared Oehring <i>et al.</i> , “Modular switchgear system and power distribution for electric oilfield equipment” (the “’878 Patent”), filed October 9, 2019, issued on December 28, 2021.
1029	Lionel B. Roe, PRACTICES AND PROCEDURES OF INDUSTRIAL ELECTRICAL DESIGN (McGraw-Hill: 1972), ISBN: 0-07-053390-3 (“ <i>Roe</i> ”)
1030	John A. Camara, ELECTRICAL ENGINEERING REFERENCE MANUAL FOR THE ELECTRICAL AND COMPUTER PE EXAM, 6 th ed. (Professional Publications, Inc.: 2002), ISBN: 1-888577-56-8 (“ <i>EE-Reference</i> ”)
1031	U.S. Patent No. 1,743,771 to Hall <i>et al.</i> , entitled “System of Electric Distribution” (filed March 25, 1926 and issued January 14, 1930) (“ <i>Hall</i> ”)
1032	IEEE100: THE AUTHORITATIVE DICTIONARY OF IEEE STANDARDS TERMS, 7 th ed. (IEEE Press: 2000), ISBN: 0-7381-2601-2 (“ <i>IEEE Standards Dictionary</i> ”)
1033	Donald G. Fink, STANDARD HANDBOOK FOR ELECTRICAL ENGINEERS, 13 th ed. (McGraw-Hill, New York: 1993), ISBN: 0-07-020984-7 (“ <i>Fink</i> ”)
1034	U.S. Patent Publication No. 2011/0241590 to Horikoshi <i>et al.</i> , entitled “Motor Driving Apparatus Having Fault Diagnostic Function” (filed Feb. 11, 2011 and published Oct. 6, 2011) (“ <i>Horikoshi</i> ”).

Exhibit No.	Description
1035	U.S. Patent Publication No. 2012/0255734 to Coli et al., entitled “Mobile, Modular, Electrically Powered System for Use in Fracturing Underground Formations” (filed April 6, 2012 and published Oct. 11, 2012).
1036	U.S. Patent No. 9,410,410 to Broussard et al., entitled “System for Pumping Hydraulic Fracturing Fluid using Electric Pumps” (filed Nov. 16, 2012 and issued Aug. 9, 2016)
1037	“Adjustable Frequency Drives,” <i>Eaton</i> , archived at https://web.archive.org/web/20171114050055/http://www.eaton.com/ecm/idcplg?IdcService=GET_FILE&allowInterrupt=1&RevisionSelectionMethod=LatestReleased&noSaveAs=0&Renderition=Primary&dDocName=PCT_1317113 (November 14, 2017).
1038	“Header” definition. Norman J. Hyne, <i>Dictionary of Petroleum, Exploration, Drilling, and Production</i> (1991).
1039	U.S. Patent No. 2,533,001 to Everett Eberhard, “Flip-Flop Counter Circuit” (“ <i>Eberhard</i> ”), filed April 30, 1949, issued December 5, 1950.
1040	C. M. Chang, “An N-P-N high power fast germanium core driver transistor,” <i>1957 International Electron Devices Meeting</i> , Washington, DC, USA, 1957, pp. 114-114, doi: 10.1109/IEDM.1957.187057 (“ <i>Chang</i> ”).
1041	F. B. Golden, “Liquid Cooling of Power Thyristors,” <i>IEEE Transactions on Industry Applications</i> , vol. IA-8, no. 5, pp. 601-606, Sept. 1972, doi: 10.1109/TIA.1972.349789 (“ <i>Golden</i> ”).
1042	A. H. Iversen and S. Whitaker, “A uniform temperature, ultra high heat flux liquid cooled, power semiconductor package,” <i>Conference Record of the IEEE Industry Applications Society Annual Meeting</i> , San Diego, CA, USA, 1989, pp. 1340-1347 vol.2, doi: 10.1109/IAS.1989.96817 (“ <i>Iverson and Whitaker</i> ”).
1043	Hefner, A. R. 1992. “A dynamic electro-thermal model for the IGBT.” In <i>Conference Record of the 1992 IEEE Industry Applications Society Annual Meeting</i> , 1094-104 vol.1 (“ <i>Hefner</i> ”).

Exhibit No.	Description
1044	Guidance on USPTO’s Recission of “Interim Procedure for Discretionary Denials in AIA Post-Grand Proceedings with Parallel District Court Litigation” (March 24, 2025)
1045	Defendants’ Motion to Stay Pending <i>Inter Partes</i> Review, <i>U.S. Well Services, LLC et al. v. Liberty Energy, Inc. et al.</i> , No. 4:24-cv-00839 (S.D. Tex. March 19, 2025)
1046	Notice of Hearing, Doc. 84, <i>U.S. Well Services, LLC et al. v. Liberty Energy, Inc. et al.</i> , No. 4:24-cv-00839 (S.D. Tex. Apr. 1, 2025)
1047	Federal Court Management Statistics (December 31, 2024), available at < https://www.uscourts.gov/sites/default/files/2025-02/fcms_na_distprofile1231.2024.pdf >

As authorized in an April 8, 2025, email from the Board, Petitioners file this reply to Patent Owner's Preliminary Response ("POPR"). The *Fintiv* factors strongly favor institution, and Patent Owner's arguments against institution only highlight the compelling merits of the Petition.

I. THE *FINTIV* FACTORS FAVOR INSTITUTION

Factor 1: While Petitioners have moved for a stay (*see* EX1045), the Board has declined to speculate whether the district court would grant a stay. The absence of a stay is, at most, neutral. *See, e.g., HP Inc. v. Slingshot Printing LLC*, IPR2020-01084, Paper 13, 9 (PTAB Jan. 14, 2021).

Factor 2: The schedule in parallel district court litigation is slipping. The Markman hearing has been delayed over two months to April 30, 2025, and the Court did not meet its April 3 deadline for the Markman Ruling. EX1046; EX2003, p.3. The Scheduling Order states that if the Markman Ruling is late the parties "may seek amendment of remaining dates in Scheduling Order." EX2003, p.3. The amount the case will be delayed remains unclear, and the current trial date will likely change.

Moreover, current time-to-trial statistics place the parallel trial in November 2026, over four months *after* the expected date for a Final Written Decision. EX1047, p.36 (indicating 32-month median time to trial in the Southern District of Texas); EX1044, 3 (stating median time-to-trial statistics bear on the proximity of the trial date when applying *Fintiv*). Thus, *Fintiv* factor 2 favors institution.

Factor 3: Petitioners diligently and promptly filed the Petition four months after it received PO’s infringement contentions on July 18, 2024. EX2003. This “diligent” filing favors institution. *See, e.g., Corning v. Dali Wireless*, IPR2021-00762, Paper 8, 9-10 (PTAB Oct. 31, 2021) (crediting petitioner’s diligent filing approximately four months after receiving infringement contentions).

Similarly, Petitioners filed the Petition two months from serving initial invalidity contentions in the parallel district court litigation (served on the September 19, 2024 deadline). EX2004, p.34; *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12, 17 (PTAB Dec. 1, 2020) (finding petition filing within two months of invalidity contentions weighed in favor of denying institution).

And the district court has invested minimal effort on invalidity issues. There has been no Markman Ruling, and fact discovery does not close until at least July 10, 2025 (and most likely later after the expected amendment of the Scheduling Order). EX2003. No significant rulings have been made on invalidity or prior art issues. The Board consistently finds *Fintiv* factor 3 weighs against discretionary denial in similar settings. *Samsung Elecs. Co., Ltd. et al v. Harbor Island Dynamic, LLC*, IPR2024-01405, Paper 9, 35-36 (PTAB Mar. 24, 2025) (finding “substantial work remains to be done” that included completion of fact and expert discovery, pretrial motions, and preparation of a joint pretrial order); *Kia Corp. et al., v. Emerging Automotive LLC*, IPR2024-01167, Paper 14, 16-17 (PTAB Jan. 27, 2025)

(determining that factor 3 weighs against discretionary denial with Markman hearing upcoming and fact discovery still open). Petitioners' diligence in filing the Petition and the district court's minimal investment tip this factor in favor of institution.

Factor 4: Petitioners stipulate that, if the Board institutes IPR in this proceeding on the grounds presented in the Petition, Petitioners will not pursue an invalidity defense in the district court action (C.A. No. 4:24-cv-00839) that the patent claims subject to the instituted IPR are invalid based on the grounds that were raised or any grounds Petitioners reasonably could have raised in the IPR. Thus, *Fintiv* factor 4 weighs "strongly in favor" of not exercising discretion to deny institution. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12, 18-19 (PTAB Dec. 1, 2020) (precedential as to § II.A); EX1044, 2-3 (stating that a *Sotera* stipulation is "highly relevant" to the *Fintiv* analysis).

Factor 5: Petitioners do not dispute that this factor weighs in favor of discretionary denial because it is the Defendant in the parallel district court litigation.

Factor 6: The strength of the Petition strongly favors institution. First, PO argues that the Petition raises voluminous and excessive grounds based on the *Adaptics* decision. POPR, 10-14. PO states the mere number of grounds is sufficient to justify denying institution. POPR, 11. But the "concern in *Adaptics* was not the number of grounds, references, or asserted claims, but that the Petition suffer[ed] from a lack of particularity" by raising "catch-all" grounds. *Samsung Electronics*

Co., Ltd. et al v. Resonant Sys., Inc., IR2023-00993, Paper 17, 24 (PTAB Jan. 10, 2024). As long as the Petition is pled with particularity, the number of grounds and references alone does not bar institution. *See id.* at 5-6, 29 (declining to follow *Adaptics* for 30 grounds applying 11 references); *see also Google LLC, v. Nobots LLC*, IPR2022-00941, Paper 11, 6, 27-28 (PTAB Dec. 1, 2022) (declining to follow *Adaptics* for 14 grounds applying 8 references); *see also Freewheel Media, Inc. v. Intent IQ, LLC*, IPR2024-00422, Paper 10, 17-18, 27-28 (PTAB Dec. 1, 2022) (declining to follow *Adaptics* for 11 alleged grounds applying 9 references).

Institution is merited here because the Petition is pled with particularity. PO's only argument for a lack of particularity is that Petitioner argues multiple references teach certain claim elements. POPR, 13-14. But PO's quote actually demonstrates that Petitioner cites specific portions from each reference teaching the claim element. POPR, 13 (quoting the Petition's cites to specific portions of both *Morris* and *Oehring IV* references as teaching VFDs); *see also* Petition, 30. The fact that multiple references disclose a claim element does not show a lack of particularity; it shows the strength of the Petition. *See Advanced Micro Devices Inc. v. Realtek Semiconductor Corp.*, IPR2023-00920, Paper 10, 42 (PTAB Nov. 28, 2023) ("A petitioner may rely upon additional references for teaching a claim element"). And PO offers no other reason for a lack of particularity. POPR, 10-14. The Board should

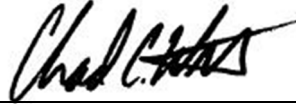
“decline to perform analysis that is missing” from the POPR and decline to follow *Adaptics*. See *Freewheel Media*, IPR2024-00422, Paper 10, 18.

Second, PO argues against the combination of *Morris* and *Oehring IV* teaching the claimed VFD. POPR, 15-22. The Board should ignore PO’s arguments that *Morris* alone does not disclose a VFD (POPR, 15-18), because the Petition relies on combining *Morris* and *Oehring IV* to teach this claim element. *In re Keller*, 642 F.2d 413, 426 (C.C.P.A. 1981) (“[O]ne cannot show non-obviousness by attacking references individually”). And in contrast to PO’s conclusory statements against the combination (POPR, 19), the Petition clearly explains why a POSITA would have made the combination: to control speed of electric motors in response to varying electrical loads during fracturing operations. Petition, 21-22; *see also* POPR, 20 (quoting this rational for the combination).

Accordingly, the Petition presents compelling evidence of unpatentability meriting institution.

Respectfully submitted,

BAKER BOTTS L.L.P.

A handwritten signature in black ink, appearing to read "Chad C. Walters", is positioned above a horizontal line.

Chad C. Walters (Reg. No. 48,022)
Lead Counsel for Petitioners

Date: April 14, 2025

2001 Ross Ave., Suite 900
Dallas, TX 75201-2980
Phone: (214) 953-6511
Fax: (214) 661-4511
chad.walters@bakerbotts.com

CERTIFICATE OF SERVICE

In accordance with 37 C.F.R. § 42.6(e), the undersigned certifies that on the 14th day of April 2025, a complete and entire copy of this **PETITIONERS' REPLY TO PATENT OWNER'S PRELIMINARY RESPONSE** and Exhibits 1044-1047 were served on Patent Owner via electronic mail at the following addresses:

BEFerguson@winston.com;
SBorder@winston.com;
MHopkins@winston.com;
TBoyce@winston.com; and
IPR-Profrac-USWell@winston.com.

BAKER BOTTS L.L.P.



Chad C. Walters (Reg. No. 48,022)
Lead Counsel for Petitioner

Date: April 14, 2025

2001 Ross Ave., Suite 900
Dallas, TX 75201-2980
Phone: (214) 953-6511
Fax: (214) 661-4511
chad.walters@bakerbotts.com