

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LIBERTY ENERGY, INC. AND LIBERTY OILFIELD SERVICES LLC
Petitioners,

v.

U.S. WELL SERVICES, LLC
Patent Owner.

Case No. IPR2024-01274
Patent 11,091,992

PETITIONERS' UPDATED EXHIBIT LIST

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Exhibit No.¹	Description
1001	U.S. Patent No. 11,091,992 by Joel Broussard <i>et al.</i> entitled “System for Centralized Monitoring and Control of Electric Powered Hydraulic Fracturing Fleet” (the “’992 Patent”).
1002	File History for U.S. Patent No. 11,091,992.
1003	Declaration of Dr. Robert Durham.
1004	U.S. Patent Publication No. 2012/0255734 by Coli <i>et al.</i> , “Mobile, modular, electrically powered system for use in fracturing underground formations” (“ <i>Coli</i> ”), filed April 6, 2012 and published October 11, 2012.
1005	U.S. Patent No. 5,606,853 to Birch <i>et al.</i> , “Gaseous Fuel Compression and Control System for Gas Turbine Engine,” (“ <i>Birch</i> ”) filed April 28, 1995 and issued on March 4, 1997.
1006	U.S. Patent Publication No. 2008/0236818 by Dykstra, “Method and Apparatus for Controlling the Manufacture of Well Treatment Fluid,” (“ <i>Dykstra</i> ”) filed March 27, 2007 and published on October 2, 2008.
1007	U.S. Patent Publication No. 2008/0288115 by Rusnak <i>et al.</i> , “Intelligent Pump System,” (“ <i>Rusnak</i> ”) filed May 14, 2007 and published November 20, 2008.
1008	U.S. Patent Publication No. 2010/0038907 by Hunt <i>et al.</i> , “Power Generation,” (“ <i>Hunt</i> ”) filed April 30, 2009 and published February 18, 2010.

¹ Citations to patents are made by column and line cite; citations to patent publications are made by paragraph number; citations to Exhibit 1002 are made with reference to the Bates-stamped pagination; citations to other exhibits are made to the page number of the document itself.

Exhibit No. ¹	Description
1009	IEEE100: The Authoritative Dictionary of IEEE Standards Terms, 7th ed. (IEEE Press: 2000), ISBN: 0-7381-2601-2 (“ <i>IEEE Standards Dictionary</i> ”).
1010	U.S. Patent No. 9,410,410 by Broussard <i>et al.</i> , “System for Pumping Hydraulic Fracturing Fluid Using Electric Pumps,” (“ <i>Broussard410</i> ”), filed November 16, 2012 and published August 9, 2016.
1011	U.S. Patent No. 9,970,278.
1012	Chart Comparing Claims of the ’992 Patent and the ’278 Parent Patent.
1013	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).
1014	Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (June 21, 2022).
1015	Federal Court Management Statistics (June 30, 2024), available at < https://www.uscourts.gov/sites/default/files/data_tables/fcms_na_appprofile0630.2024.pdf >
1016	Lionel B. Roe, Practices and Procedures of Industrial Electrical Design (McGraw-Hill: 1972), ISBN: 0-07-053390-3 (“ <i>Roe</i> ”)
1017	John A. Camara, Electrical Engineering Reference Manual for the Electrical and Computer PE Exam, 6th ed. (Professional Publications, Inc.: 2002), ISBN: 1-888577-56-8 (“ <i>EE-Reference</i> ”).
1018	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> ”).
1019	Donald G. Fink, Standard Handbook for Electrical Engineers, 13th ed. (McGraw-Hill, New York: 1993), ISBN: 0-07-020984-7 (“ <i>Fink</i> ”).
1020	U.S. Patent Publication No. 2011/0241590 to Horikoshi <i>et al.</i> , entitled “Motor Driving Apparatus Having Fault Diagnostic

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	Function” (“ <i>Horikoshi</i> ”), filed February 11, 2011 and published October 6, 2011.
1021	IEEE Recommended Practice for Electric Power Distribution for Industrial Plants (IEEE Red Book), 1986, ANSI/IEEE Std 141-1986: 1-609 (“ <i>Red Book</i> ”).
1022	Second Declaration of Dr. Robert Durham.
1023	Deposition Transcript of Dr. Michael Nikolaou in IPR2024-01274.
1024	U.S. Patent Pub. No. 2014/0138079 by Broussard <i>et al.</i> , “System for Pumping Hydraulic Fracturing Fluid Using Electric Pumps,” (“ <i>Broussard079</i> ”), filed November 16, 2012, published May 22, 2014.
1025	U.S. Patent No. 8,789,601 by Broussard <i>et al.</i> , “System for Pumping Hydraulic Fracturing Fluid Using Electric Pumps,” (“ <i>Broussard601</i> ”), filed February 26, 2014, published June 26, 2014, and issued July 29, 2014.
1026	U.S. Patent No. 5,790,972 by <i>Kohlenberger</i> , “Method and Apparatus for Cooling the Inlet Air of Gas Turbine and Internal Combustion Engine Prime Movers,” (“ <i>Kohlenberger</i> ”), filed August 24, 1995, and issued August 4, 1998.
1027	U.S. Patent No. 8,747,533 by <i>Ekanayake</i> and Scipio, “Systems and Methods to Determine Fouling in a Gas Turbine Filter,” (“ <i>Ekanayake</i> ”), April 30, 2013, and issued June 10, 2014.
1028	U.S. Patent No. 8,552,728 by Weiher, “Sluggish Circuit Breaker Detection System and Method,” (“ <i>Weiher</i> ”), filed November 30, 2010, and issued October 8, 2013.
1029	European Patent No. 0023879 by Newman, “Engine module life tracking system,” (“ <i>Newman</i> ”), filed August 4, 1980, and published January 30, 1985.
1030	Rosemount Model 3051 Transmitter Product Manual, available as of March 22, 2012, at https://web.archive.org/web/20120322124738/http://www2.emer

Exhibit No. ¹	Description
	sonprocess.com/siteadmincenter/PM%20Rosemount%20Documents/00809-0100-4774.pdf.
1031	Rosemount 848T High Density Temperature Transmitter Reference Manual, available as of January 18, 2012, at https://web.archive.org/web/20120118001644/http://www2.emersonprocess.com/siteadmincenter/PM%20Rosemount%20Documents/00809-0100-4697.pdf .
1032	Declaration of Mina Ching, Internet Archive
1033	U.S. Patent App. Pub. No. 2009/0188682 by Gensel <i>et al.</i> , “Fire Extinguishing System for a Casing,” (“ <i>Gensel</i> ”), filed March 31, 2009, and published Jul. 30, 2009.
1034	Whitaker, “AC Power System Handbook,” 3rd ed., CRC Press (2007).
1035	U.S. Patent No. 1,717,071, by Smith and Smith, “Shutting Down Means for Hydraulic Turbines,” (“ <i>Smith</i> ”), filed May 4, 1925, issued June 11, 1929.
1036	U.S. Patent No. 3,605,919, by Bromell and Homanick, “Drilling Rig Control” (“ <i>Bromell</i> ”), filed May 16, 1969, issued September 20, 1971.
1037	U.S. Patent App. Pub. No. 2009/0181582 by Thompson, “Enhanced Cable for Field Data Distribution System” (“ <i>Thompson</i> ”), filed January 16, 2009, published July 16, 2009.
1038	U.S. Patent No. 7,949,483 by Discenzo <i>et al.</i> , “Integration of Intelligent Motor with power Management Device,” (“ <i>Discenzo</i> ”), filed September 30, 2005, issued May 24, 2011.
1039	U.S. Patent App. Pub. No. 2013/0142601 by McIver and Cunningham, “Fracture Sand Silo System and Methods of Deployment and Retraction of Same” (“ <i>McIver</i> ”), filed October 23, 2012, published June 6, 2013.
1040	International Publication No. WO2016/019219 by Omont <i>et al.</i> , “Monitoring Health of Additive Systems,” (“ <i>Omont</i> ”), filed July 31, 2015, published February 4, 2016.

Exhibit No. ¹	Description
1041	Gardner Denver GD-2500 Quintuplex Well Servicing Pump Operating and Service Manual, captured by the Internet Archive on Sep. 17, 2005, available at < https://web.archive.org/web/20120917102614/http://www.quincieoilfield.com/pdf/3.0%20Gardner%20Denver/2500/GD2500Q%20Op%20&%20Service%20Manual.pdf >
1042	Tutterow, V. and McKane, A. T., “Variable Speed Pumping: A Guide to Successful Applications,” Europump and Hydraulic Institute, 2004.
1043	Mark’s Standard Handbook for Mechanical Engineers, Eleventh Edition, McGraw-Hill Companies, New York, 2007.
1044	Langewis, Jr., C. and Gleeson, C. W., “Practical Hydraulics of Positive Displacement Pumps for High-Pressure Waterflood Installations,” Society of Petroleum Engineers, February 1971.
1045	Email from the Board RE: IPR2024-01274 – Additional Pages Request, dated September 3, 2025.
1046	NFPA 79, “Electrical Standard for Industrial Machinery” National Fire Protection Association, Quincy, Mass, 1962-2007.
1047	Pearson, “Proposed HSE guidelines on emergency shutdown systems,” 1989 A First International Conference on the Use of Programmable Electronic Systems in Safety Related Applications Computers and Safety, 1989, pp. 55-58.
1048	Gilson, Bill. "Fast Response System for Large-Volume Acid Stimulation." Paper presented at the Offshore Technology Conference, Houston, Texas, May 1996. doi: https://doi.org/10.4043/8096-MS
1049	Rex Burgos; Marc Allcorn; Robin Mallalieu; Jorge Vicens “Eliminating Human Error during Coiled Tubing Operations,” SPE Production & Operations 22 (03) (June 2006): 335–338. DOI: 10.2118/100164-PA.
1050	J. J. Sammarco, “Programmable electronic and hardwired emergency shutdown systems: a quantified safety analysis,” Fortieth IAS Annual Meeting. Conference Record of the

Exhibit No.¹	Description
	Industry Applications Conference, 2005, pp. 210-217 Vol. 1, doi: 10.1109/IAS.2005.1518312.
1051	Kurz, Rainer, and Robert C. White. "Modeling Emergency Shutdowns of Centrifugal Compressors." Paper presented at the PSIG Annual Meeting, Galveston, Texas, May 2009.
1052	Third Declaration of Dr. Robert Durham, dated December 1, 2025.
1053	Deposition Transcript of Dr. Michael Nikolaou, dated November 20, 2025 in IPR2024-01274.
1054	International Application No. WO 2004/099587 (" <i>Armstrong</i> "), filed March 24, 2004, published November 18, 2004.
1055	U.S. Patent No. 7,909,585 (" <i>Clancy</i> "), filed March 28, 2007, published November 22, 2007.
1056	WO Pub. No. 2016/044509 (" <i>Trobaugh</i> "), filed September 17, 2015, published March 24, 2016.
1057	European Patent Application EP 1380740 (" <i>Teets</i> "), filed December 3, 1997, published January 14, 2004.
1058	U.S. Patent No. 6,576,849 (" <i>Bliss</i> "), filed December 1, 2000, published June 10, 2003.
1059	U.S. Patent No. 7,455,138 (" <i>Delaney</i> "), filed November 10, 2006, published November 25, 2008.
1060	Weir SPM General Catalog (2009) (" <i>Weir</i> ")
1061	Declaration of Nathaniel E. Frank-White, dated September 20, 2022.
1062	U.S. Patent Application Publication No. 2016/0258267 (" <i>Payne</i> "), effectively filed March 4, 2015, published September 8, 2016.
1063	Provisional App. No. 62/128,291 (" <i>Payne Provisional</i> "), filed March 4, 2015.
1064	U.S. Patent 9,523,312 (" <i>Allam</i> "), filed Nov. 1, 2012, and published May 2, 2013.

Exhibit No.¹	Description
1065	IEEE100: The Authoritative Dictionary of IEEE Standards Terms, 7th ed. (IEEE Press: 2000), ISBN: 0-7381-2601-2.
1066	U.S. Patent Pub. No. 2013/0306322 (“ <i>Sanborn</i> ”), filed December 7, 2012, and published November 21, 2013.
1067	S.V. Stephenson et al., “Fracturing Process and Control Automation: Phase 2,” SPE 26220 (1993) (“ <i>Stephenson</i> ”).
1068	U.S. Patent Pub. No. 2008/0183415 (“ <i>Dykstra415</i> ”), Filed January 31, 2007, and published July 31, 2008.
1069	What is LNG?, available at: https://web.archive.org/web/20040712131010/http://fossil.energy.gov/features/lng/whatisit.html .
1070	Merriam Webster, Definition of “Fouling,” available at: https://web.archive.org/web/20111018124705/http://www.merriam-webster.com/dictionary/fouling
1071	Tomlinson, H.L. et al., “Fracturing Process Control and Automation,” SPE 17315 (1988)
1072	Excerpts from NFPA 79, “Electrical Standard for Industrial Machinery” National Fire Protection Association, Quincy, Mass, 1962-2007.
1073	Petitioners’ Demonstrative for Hearing

Date: January 19, 2026

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

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CERTIFICATE OF SERVICE

The undersigned hereby certifies on this 19th day of January, 2026, that true and correct copies of the foregoing PETITIONERS' UPDATED EXHIBIT LIST and Exhibit 1073 were served in their entirety on Patent Owner via electronic mail at the following addresses:

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