

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DYNAENERGETICS EUROPE GMBH and
DYNAENERGETICS US, INC.

Petitioner

v.

QINETIQ LIMITED

Patent Owner

Case: PGR2023-00003
Patent No. 11,215,039

DECLARATION OF ELIZABETH FULLER

I, Elizabeth Fuller, being over the age of 18 and competent to make the declarations herein, do hereby declare that:

1. I am a paralegal in the law firm of Moyles IP, LLC, working under supervision of Lisa J. Moyles, lead counsel for Petitioners DynaEnergetics Europe GmbH and DynaEnergetics US, Inc., in the matter of this post-grant review of U.S. Patent 11,215,039. I have personal knowledge of the facts set forth herein and could competently testify to the statements made herein.

2. Exhibit 1007 is an accurate copy of an article by Clinton C. Quattlebaum, Kenneth Lee Borgen, Zhenyu Xue, and Peter B. Wilkinson entitled Optimizing Perforating Charge Design for Stimulation and dated October 2012 that I obtained at https://www.researchgate.net/publication/267461122_Optimizing_Perforating_Charge_Design_for_Stimulation on August 31, 2022.

3. Exhibit 1009 is an accurate copy of a presentation by David Davison and Dan Pratt entitled A Hydrocode-Designed well Perforator with Exceptional Performance from the 17th International Symposium on Ballistics in Midrand, South Africa and dated March 1998 that I obtained at <http://www.shocktrans.com/DownloadableFiles/STI.BlastingSymposium.1998.pdf> on August 31, 2022.

4. Exhibit 1014 is an accurate copy of a book by William P. Walters and Jonas A. Zukas entitled Fundamentals of Shaped Charges and dated October 2012 that I reviewed in hard copy on August 31, 2022.

5. Exhibit 1015 is an accurate copy of a paper presented at the SPE European Formation Damage Conference, The Hague, Netherlands by P.S. Smith, L.A. Behrmann, and Wenbo Yang entitled Improvements in Perforating Performance in High Compressive Strength Rocks and dated June 2, 1997 that I obtained at <https://onepetro.org/SPEEFDC/proceedings-abstract/97EFDC/All-97EFDC/SPE-38141-MS/188624> on August 31, 2022.

6. Exhibit 1016 is an accurate copy of a published thesis submitted for the degree of Doctor of Philosophy entitled Penetration of a Shaped Charge by Chris Poole that I obtained at <https://core.ac.uk/download/pdf/40087594.pdf> on September 30, 2022.

I hereby declare that all statements of my knowledge made in this declaration are true and that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: October 4, 2022



Elizabeth Fuller