# UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD

# BAKER HUGHES INCORPORATED and BAKER HUGHES OILFIELD OPERATIONS, INC., Petitioners

v.

### PACKERS PLUS ENERGY SERVICES INC., Patent Owner

Case IPR2016-01380 (Patent 9,303,501)

Case IPR2016-01496 (Patent 7,134,505)

Case IPR2016-01505 (Patent 7,543,634)

Case IPR2016-01506 (Patent 7,861,774)

**Harold McGowen Declaration** 



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### **Expert Report of Harold E. McGowen III, PE**

- 2 My name is Harold E. McGowen, III. I have been a Registered Professional Engineer licensed in Texas since
- 3 1989. By my education and experience, reflected in my CV, I am qualified to render the opinions delivered
- 4 in this report. I have been retained by the Patent Owner in this matter.
- 5 The opinions provided herein are based upon the information reviewed by me at the time of the writing of
- 6 this report. Unless stated otherwise, the opinions contained in this report are based on a reasonable
- 7 degree of engineering probability. If I review, receive or discover new and pertinent information related
- 8 to the matter at hand I may augment, adjust, or change my opinions and request to file a supplemental
- 9 expert report.

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- 10 This report supplements that certain "Expert Report of Harold E. McGowen III, PE" dated 12/02/2016,
- 11 hereinafter referred to as (McGowen, 2016).

### 1 SUMMARY OF OIL AND GAS EXPERIENCE

- 13 I have been employed in the oil and gas industry since 1983 as a Petroleum Engineer, manager, and
- 14 executive. I am a Registered Professional Engineer in the State of Texas and I received a B.S. in Mechanical
- 15 Engineering from Texas A&M University in 1982. I was initially cross-trained as a Petroleum Engineer over
- 16 a four-year period at Union Pacific Resources Company and I have continued my education through self-
- 17 study and various industry schools ever since. I am a Registered Professional Engineer in the State of Texas
- 18 with decades of experience as a Petroleum Engineer having personally designed numerous hydraulic
- 19 fracturing treatments and/or directed the drilling, completion and operation of numerous wells.
- 20 I have considerable experience with downhole tools having started my career in the engineering
- 21 department at an oil tool/service company and subsequently having analyzed the inner workings of
- 22 numerous pieces of equipment over the years. I have also worked on several multi-million dollar patent
- 23 cases as an expert witness or engineering consultant. Over the past 33 years, I have studied and gained
- 24 considerable experience in various technologies, procedures, processes, and methods related to
- 25 stimulation of oil and gas wells, including but not limited to acidizing and hydraulic fracturing. I have
- 26 recently applied my training and experience to various horizontal drilling and horizontal stage fracturing
- 27 projects where I was the engineer responsible for the completion design, economic evaluation, and
- 28 execution; therefore, I have current knowledge concerning matters relevant to this case.



1 For more information on my qualifications, see McGowen, 2016 at pages 1-3.

### 2 COMPENSATION

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- 3 I was retained by the attorneys representing the Respondent to provide my expert opinion related to these
- 4 matters. I am currently billing counsel for the Respondent at an hourly rate of \$350 per hour for my efforts
- on this project. I am also being reimbursed for reasonable expenses I incur in relation to my work on this
- 6 proceeding. I will be compensated regardless of the outcome in the preceding.

### 3 SCOPE OF WORK

- 8 I have been engaged by counsel to provide engineering consulting, and expert witness services. I have
- 9 been asked to review the 774, 505, 634, and 501 Patents and the challenges to said patents and document
- 10 my opinions from the perspective of a person of ordinary skill in the art (hereinafter "POSITA") as defined
- 11 herein, having a knowledge of the pertinent art, as of November 19, 2001 (hereinafter referred to as "as
- of 2001" or "circa 2001"). This declaration supplements my previous declaration addressing these patents.

### 4 SUMMARY OF CONCLUSIONS

- 14 It is my opinion that the Baker Hughes has failed to prove obviousness. Neither Lane Wells nor Ellsworth
- describe fracturing through open-hole segments, which is a critical characteristic of the 774 claims. Prior
- 16 art and convention teaches away from the 774 Patent/Invention. Lane-Wells does not provide the POSITA
- 17 with enough information to evaluate the general concept presented, would have been interpreted by a
- 18 POSITA as an application for inflatable packers, and teaches away from the use of SBPs in an open-hole.
- 19 Thus, a POSITA would not have been motivated to combine the sliding sleeve components depicted in Lane-
- 20 Wells with the SBPs in Ellsworth in an open-hole portion of a well. Moreover, the POSITA would certainly
- 21 not have been motivated to combine Lane-wells and Ellsworth in a Hydraulic Fracturing application when
- the end result could not have been known.
- 23 Similarly, it is my opinion that the Weatherford has failed to prove obviousness. Weatherford fails to show
- 24 that a POSITA would have a reasonable expectation of success in using Yost or some modified version of
- 25 Yost, or that a POSITA would attempt to modify Yost as Weatherford proposes. Yost describes scientific
- 26 experiments, not the results of a commercially viable fracturing operation. And those experiments would
- 27 lead a POSITA to believe that attempting to fracture through multiple open hole segments will fail to create



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