## 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 IPR2016-01506 Patent 7,861,774

## EXCLUSIVE LICENSEE RAPID COMPLETIONS LLC'S RESPONSE

Mail Stop "PATENT BOARD"
Patent Trial and Appeal Board

U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450



## **TABLE OF CONTENTS**

I.	Intro	roduction1				
II.	Ove	rview of the Patented Technology				
III.	Claim Interpretation					
	A.	Solid Body Packer				
	B.	The Second Annular Wellbore Segment				
IV.	Obviousness Analysis					
	A.	The Level of Ordinary Skill in the Art				
		1.	A POSITA Would Have Been Aware of a Variety of Different Completion Techniques	8		
		2.	A POSITA Would Have Expected Multi-Stage Hydraulic Fracturing Operations to Require Cemented Casing	11		
		3.	A POSITA Would Carefully Weigh the Risks, Reliability, and Economics of a Proposed Completion	15		
		4.	Baker Hughes Attempts to Conflate Acidizing and Fracturing.	18		
	В.	The Objective Indicia of Non-Obviousness		20		
		1.	The Claimed Technology Operates Contrary to the Accepted Wisdom That Prevailed at the Time of the Invention and it Demonstrated Unexpected Results	20		
		2.	The Claimed Technology Has Received Industry Praise and Recognition.	26		
		3.	Baker Hughes Copied the Claimed Technology	31		
		4.	The Claimed Technology Has Enjoyed Significant Commercial Success	37		
		5.	There Is a Nexus Between the Claimed Technology and Its Commercial Success.	41		



	6.	Prior	Length of Intervening Time Between the Asserted r Art Dates and the Claimed Invention Objectively constrate that the Invention Was Not Obvious	44			
C.	The Scope and Content of the Prior Art4						
	1.	Lane-Wells is a Product Catalog that Does not Describe Open Hole Multi-Stage Fracturing					
		a)	Petitioners Fail to Show that a POSITA Reviewing Lane-Wells Would Equate "Acidizing" with "Fracturing."	45			
		b)	Petitioners Remaining Assertions Regarding Lane-Wells Miss the Point.	48			
	2.		worth Describes Water Shut-Off Operations, Not raulic Fracturing.	50			
D.	The Differences Between the Prior Art and the Claimed Invention						
	1.	the S	ioners Fail to Show that Lane-Wells Discloses Solid Body Packers, Open Hole, Horizontal, and turing Limitations of the '774 Claims	51			
	2.	Vari	ioners Fail to Show That Ellsworth Discloses ous Ball-Activated Sleeve and Fracturing itations of the '774 Claims	53			
E.	Opinions of Learned Experts						
F.	The I	Petitio	n Fails to Establish Lane-Wells as Prior Art	56			
Over	all Cor	nclusio	ons on Obviousness	61			
A.	Petitioners Have Failed to Meet Their Burden of Showing that the Prior Art Taught Pumping Fracturing Fluid into Open Hole Segments or that a POSITA Would Combine References and Expect Success						
B.	The Objective Evidence Demonstrates that Petitioners'						



V.

### **TABLE OF AUTHORITIES**

#### Cases

Akamai Techs., Inc. v. Cable & Wireless Internet Servs., Inc. 344 F.3d 1186 (Fed.Cir.2003)	32
Apple Inc. v. Samsung Elecs. Co. No. 2015-1171, 2016 WL 5864573 (Fed. Cir. Oct. 7, 2016)	5, 38
Application of Bayer 568 F.2d 1357 (C.C.P.A. 1978)	7, 60
Ashland Oil, Inc. v. Delta Resins & Refractories, Inc. 776 F.2d 281 (Fed. Cir. 1985)	7, 38
Black & Decker, Inc. v. Positec USA, Inc. No. 2015-1646, 2016 WL 2898012 (Fed. Cir. May 18, 2016)	4, 62
Blue Calypso, LLC v. Groupon, Inc. 815 F.3d 1331 (Fed. Cir. 2016)	7, 60
Brown & Williamson Tobacco Corp. v. Philip Morris Inc. 229 F.3d 1120 (Fed. Cir. 2000)	41
Bruckelmyer v. Ground Heaters, Inc. 445 F.3d 1374 (Fed. Cir. 2006)	57
Carella v. Starlight Archery & Pro Line Co. 804 F.2d 135 (Fed. Cir. 1986), amended on reh'g sub nom. Carella v. Starlight Archery, No. 86-728, 1986 WL 1154370 (Fed. Cir. Dec. 16, 1986)	9, 60
Crocs, Inc. v. Int'l Trade Comm'n 598 F.3d 1294 (Fed.Cir.2010)	0, 55
dunnhumby USA, LLC v. emnos USA Corp. No. 13-CV-0399, 2015 WL 1542365 (N.D. III, Apr. 1, 2015)	5



Dynamic Drinkware, LLC v. Nat'l Graphics, Inc. 800 F.3d 1375 (Fed. Cir. 2015)62	2
Eli Lilly & Co. v. L. A. Biomedical Research Inst. 849 F.3d 1073 (Fed. Cir. 2017)63	3
Envtl. Designs, Ltd. v. Union Oil Co. of California 713 F.2d 693 (Fed. Cir. 1983)	7
Gambro Lundia AB v. Baxter Healthcare Corp. 110 F.3d 1573 (Fed. Cir. 1997)42	2
Graham v. John Deere Co. of Kansas City 383 U.S. 1 (1966)	5
In re Cyclobenzaprine Hydrochloride Extended–Release Capsule Patent Litig. 676 F.3d 1063 (Fed. Cir. 2012)	7
In re Hall 781 F. 2d 897 (Fed. Cir. 1986)	7
In re Hedges 783 F.2d 1038 (Fed.Cir.1986)20	Э
In re Kahn 441 F.3d 977 (Fed Cir. 2006)63	1
In re Klopfenstein 380 F.3d 1345 (Fed. Cir. 2004)58	3
In re Lister 583 F.3d 1307 (Fed. Cir. 2009)	9
In re Magnum Oil Tools Int'l, Ltd. 829 F.3d 1364 (Fed. Cir. 2016)59, 62	2
InTouch Techs., Inc. v. VGO Commc'ns, Inc. 751 F 3d 1327 (Fed. Cir. 2014)	<b>~</b>



# DOCKET

## Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

### **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

#### **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

#### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

#### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

#### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

#### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

