

**29<sup>th</sup> January 2016**

**QUARTERLY ACTIVITIES REPORT FOR THE QUARTER ENDED  
31<sup>st</sup> December 2015**

The Directors of K2 Energy Limited (ASX: KTE) ("K2") provide the following report for the quarter ended 31<sup>st</sup> December 2015.

K2 Energy had 3 major activities during the quarter being its oil and gas activities in the USA, its solar energy activities and its interest in MEARS Technologies Inc. ("MEARS").

**OIL AND GAS ACTIVITIES**

K2 Energy owns 10.68% of Trey Resources I, LLC, which is an oil and gas producer based in Texas, USA. Trey Resources has substantial acreage of approximately 19,000 net acres, predominantly in Texas and Oklahoma.

Production generated from the assets at 31<sup>st</sup> December 2015 is approximately 580 BOEPD (Barrels of Oil Equivalent Per Day) gross and approximately 410 BOEPD net.

Oil and gas prices remained depressed, and consequently so as to comply with accounting standards, K2 will provide against the carrying value of this asset in its half yearly accounts to 31<sup>st</sup> December 2015. The amount of this provision will be determined at the time of the completion of these accounts.

**MEARS TECHNOLOGIES, INC.**

K2 Energy has an investment in MEARS, which has made good progress in relation to the commercialisation and adoption of its technology by firms in the semi-conductor industry.

MEARS entered into an engagement agreement with a West Coast USA based investment firm to prepare MEARS for an IPO, which is expected to occur in the first half of the 2016 calendar year. In November 2015 Mears appointed a highly experienced CEO, Scott Bibaud to lead the company and join its Board of Directors.

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## **MEARS TECHNOLOGIES, INC. (continued)**

In preparation for the listing, Mears has converted many of its options on issue into shares, which has resulted in an increase in K2's shareholder interest to 10.3% (or 6.8% on a fully diluted basis). K2 also holds a USD1.3 million convertible note in Mears which converts into Mears shares at a discount to the listing price. MEARS is continuing to hire key personnel as well as the recently appointed CEO to take the company through to the IPO. A profile of the revamped senior team is set out below.

During late 2014 MEARS signed a Memorandum of Understanding with a Multinational Semiconductor Manufacturer\* for a program leading to a Product Qualification that incorporates MST Technology. MEARS also continues to engage with a number of other major international firms on the commercialisation of its Mears Silicon Technology ("MST™").

MST™ has been demonstrated to reduce gate leakage and increase drive current (performance) in CMOS semiconductors. It also has the benefit of reducing the increasing variability in key parameters, that is now one of the most significant problems facing the industry and which is limiting the yield, power and performance of leading products.

\* The name of the Multinational Semiconductor Manufacturer cannot be disclosed because of confidentiality agreements in place.

## **MEAR TECHNOLOGIES INC. SENIOR MANAGEMENT TEAM**

### **Scott Bibaud, Chief Executive Officer, Board Director**

Mr. Bibaud has been active in the semiconductor industry for over twenty years. He has successfully built a number of businesses in his career which grew to generate over \$1 Billion in revenue at some of the world's largest semiconductor companies. Most recently he was Senior Vice President and General Manager of Altera's Communications and Broadcast Division. Prior to that he was Executive Vice President and General Manager of the Mobile Platforms Group at Broadcom.

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## **MEAR TECHNOLOGIES INC. SENIOR MANAGEMENT TEAM (continued)**

### **Erwin Trautmann, Executive Vice President of Strategic Business Development, Board Director**

Mr. Trautmann has over 30 years of experience in the semiconductor industry. He has held various executive positions at Fortune 500 companies and possesses extensive experience in project management, product development and business leadership. Mr. Trautmann formerly served as Senior Vice President at KLA-Tencor and as Vice President at Texas Instruments with global responsibilities.

### **Dr. Robert Mears, Chief Technology Officer, Board Director, Founder**

Dr. Mears is a recognized pioneer and leading expert in nano-scale material science and engineering. In the mid-1980's, Dr. Mears re-engineered silica optical fiber by adding atoms of erbium (rare earth element) to silica to invent the Erbium Doped Fiber Amplifier (EDFA), a transformative technology for long-distance optical networks. A decade ago, Dr. Mears shifted his focus to the semiconductor industry, where he identified a similar scaling problem on the horizon. Dr. Mears founded MEARS Technologies in 2001 to leverage his unique insights in the engineering of new materials. As CTO, and supported by a talented R&D team, Dr. Mears developed the MEARS MST™ Platform and MST™ CMOS, its first commercial application. Dr. Mears has authored or co-authored approximately 250 publications and patents and is an Emeritus Fellow of Pembroke College, Cambridge, England

### **Dr. Rinn Cleavelin, Board Director, Chair Technical Advisory Board**

Dr. Cleavelin has more than 34 years of experience in the areas of Semiconductor Processing, Development, and Management. He held the position as Chief Operating Officer for International SEMATECH in Austin, TX until returning to Texas Instruments Inc. in Silicon Technology Development in June of 2002. During his career, he had the opportunity to lead several significant programs at Texas Instruments including the startup of three Wafer Fabs and the leadership role in the process development of several DRAM, EPROM, and Flash EEPROM products. He has also had the leadership role in the development of several new process technologies and tools in the areas of Ion Implantation, Thermal Processing, Surface Preparation, Defect Detection, and Metrology working with equipment suppliers worldwide.

**MEAR TECHNOLOGIES INC. SENIOR MANAGEMENT TEAM (continued)**

**Ron Cope, Chief Operating Officer**

Mr. Cope brings to MEARS Technologies more than 35 years of experience in various technical and operational positions with a proven record of success at both large Fortune 500 companies and venture capital backed technology start-ups. Mr. Cope formerly served as VP of Operations & General Manager for SyChip-Murata. Prior to SyChip-Murata, Mr. Cope held Executive and Sr. Management positions at Texas Instruments, National Semiconductor, VLSI Technology, Hitachi Semiconductor and other high-tech companies.

**MEARS SOLAR**

K2 Energy owns the exclusive worldwide rights to the Mears Silicon Technology ("MST™") for all solar energy applications.

K2 Energy funded a research and development solar program conducted by Mears with the aim being to develop more efficient silicon based cells utilising MST™. MEARS and K2 Energy have agreed that the solar activities have entered the commercialization/collaboration phase. K2 Energy, together with the assistance of MEARS, is actively seeking a major international solar group to joint venture or collaborate with, in order to commercialise the MST technology.

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