



## UPDATE ON US PATENT FOR LIGHTWEIGHT PROPPANT

ASX ANNOUNCEMENT

22 February 2017

Energy technology company, **LWP Technologies Limited (ASX: LWP) ("LWP" "the Company")**, is pleased to report that the United States Patent and Trademark Office (USPTO) will issue U.S. Patent No. 9,587,170 on 7 March 2017 to Epropp LLC, a wholly owned subsidiary of LWP Technologies Limited, for the Company's lightweight, fly-ash based proppants that the Company is developing for use in hydraulic fracturing of unconventional oil & gas wells.

The US patent was originally lodged on 13 August 2013, and subsequently, post the patent being published, the examiner opined that a number of the inventive steps were not novel, and further, the examiner opined that some of the inventive steps were the subject of prior art. LWP's patent attorneys submitted a comprehensive rebuttal of the examiner's opinion, and subsequently submitted further information that supported LWP's claims.

The US patent office has now advised in writing that U.S. Patent No. 9,587,170 will be issued on March 7 with the entire wording of our initial patent application accepted, without any amendment to the wording whatsoever. This validates that there are no competing patents to LWP's novel technology anywhere in the World.

LWP has also filed a continuation patent application in the United States to pursue additional claims realised by the operations at the Clontarf Facility, as well as Internationally. We are advised that the continuation patent will carry the same 13 August 2013 Lodgement date.

As reported on 20 February 2017, LWP has stepped up the marketing of its lower cost, fly-ash based proppants to the US oil & gas sector at a time when energy prices have stabilised and higher levels of exploration and development drilling activity are occurring in the United States. Ensuring robust protection of the Company's technology through this patent is therefore timely, especially given the greater level of inquiry LWP is receiving from industry participants in the US.

As well, the granting of the patent demonstrates the company's ongoing commitment to leadership and innovation in low cost, light weight, and high strength proppants for hydraulic fracturing.

### Management Commentary

**LWP's Chairman Siegfried Konig said:** "We are gratified that the UPSTO has recognised the novelty and uniqueness of our method of manufacturing a round proppant material primarily composed of fly ash – an abundant, low cost, and widely available by-product of coal fired power stations around the world. We will continue to build on and strengthen our intellectual property portfolio and look forward to working with our partners to bring low cost, light weight, and high strength proppants to market."

**LWP's CEO Americas Dr David Henson added:** "The USPTO's decision to issue this patent is an important milestone for our company. It strengthens our advantage in the area of low cost, light weight, and high strength proppants, and highlights a number of financial, technical, and environmental advantages we may offer over ceramic proppants currently on the market. Our proppants provide outstanding conductivity, with low manufacturing costs, resulting in lighter weight proppants with higher crush resistance than many ceramic proppants on the market."

LWP continues its active marketing program in the United States and globally, and will update shareholders on licensing agreements and other routes to market when material agreements occur.

– ENDS –

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**About LWP Technologies**

LWP Technologies Limited (LWP) is an Australian oil and gas technology company focused on commercialising next generation, fly-ash based, proppants for use in hydraulic fracturing of oil and gas wells globally. LWP is seeking to commercialise its proppants as a cost effective, superior alternative to bauxite and clay based ceramic proppants, typically used in hydraulic fracturing operations currently. The Company commenced proppant production from its pilot scale proppant manufacturing plant in Queensland, Australia, in Q3, 2015. LWP is seeking joint venture partners and/or licensees to commercialise its proppant product, and deliver significant returns to shareholders.

**About Proppants**

Proppants are a sand-like commodity used to 'prop' open fractures in shale rocks which allows oil and gas to flow. Proppants are often the single largest cost item in the fracking process and represent a multi-billion dollar global market annually. Traditional ceramic proppants are made from clay and/or bauxite.

LWP Technologies ceramic proppants are majority manufactured from fly-ash, a by-product of coal fired power plants. The Company is of the view that its unique proppant product has the potential to lead the industry due to:

- The widespread abundant availability of fly-ash, often near to oil and gas shale resources;
- The ultra-light weight of LWP fly-ash proppants; and
- The ability of LWP proppants to withstand the very high pressures and heat of deep wells.

LWP proppants have been certified by Independent Experts to meet or exceed both the American Petroleum Institute standards and the ISO standards.