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AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

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EDEN'S CNT IN PLASTICS

RESEARCH SHOWS ENCOURAGING PRELIMINARY RESULTS

The 2014 collaborative research project, partially funded by the Australian Research Council ("ARC") (to the extent of A$255,000), that Eden Energy Ltd ('Eden") (ASX:EDE) and the University of Queensland have been undertaking into carbon nanotubes in plastics, has achieved very encouraging preliminary results.

The following conclusions, along with full details of the actual results achieved to date with Eden's new product (**EdenPlast™**), including comparisons with the published performance of other commercial Nylon 6 products, are shown in Figure 1 below.

- **Excellent combination of high modulus (stiffness) and outstanding ductility (elongation-at-break) achieved** for Nylon containing <1% Eden's CNTs compared to commercial grades of nano Nylon 6**.**
- **Superior ductility with comparable tensile strength (> 75 MPa, 50% Relative Humidity ("RH") conditions) compared to super-tough commercial Nylons** containing higher levels (4wt%) of nanoclays.
- **Higher tensile strength** than comparable Nylon based materials with similar ductility.
- **Excellent dispersion** of the Eden's CNTs in EdenPlast™ (see the two TEM micrographs in Figure 2 below)**.**
- **Visual clarity and transparency suggests suitability for a super-tough-film grade.**
- The **relatively low-cost** processing method of EdenPlast™ could potentially result in production of **cost-effective, high-stiffness and/or high-toughness grades of nano Nylon 6.**
- **Possible suitable future markets** for EdenPlast™, indicated by the results to date, are the **automotive and packaging markets.**
- Whilst fundamental studies (XRD, rheology, thermal and electrical analysis) and further standard characterization (ASTM, ISO) need to be carried out (impact, flexural, tensile, dynamical, fatigue) before possible commercialisation, **these preliminary results from extruded filaments are considered very encouraging.**

Level 15, 197 St Georges Terrace, Perth, Western Australia 6000
Telephone: (08) 9282 5889 Facsimile: (08) 9282 5866
Email: mailroom@edenenergy.com.au

	EdenPlast High Toughness ¥	UNITIKA M1030DH (Ref#1)	ARDLON NE2740M5 (Ref#2)	Hybrid Plastics MS0825 (Ref#3)	Cresset NE2740, 4 wt% nanoclay (Ref#4)	Cresset NE6040-ST, 4 wt% nanoclay, Super tough grade (Ref#4)
Tensile Modulus (DAM*), MPa	5090 ± 638	4300				
Tensile Modulus (50 % RH), MPa	1463 ± 289	2600				
Flexural Modulus (DAM*), MPa			4070		4500	
Flexural Modulus (50 % RH), MPa			3600		3700	
Tensile Strength (DAM*), MPa	82 ± 6	95	78	61	103	47
Tensile Strength (50 %RH), MPa	75 ± 5	63	74		96	45
Yield Stress (DAM*), MPa	76 ± 8			45	103	
Yield Stress (50 %RH), MPa	40 ± 2				96	
Elongation-at-break (DAM*), %	184 ± 43	3.4	3.5	230	1.4	71
Elongation-at-break (50 %RH), %	205 ± 18	4.0	4.0		2.4	182

Figure 1. Comparative EdenPlast™ Test Performance Results vs Other Published Performance Results

*DAM: Dried as moulded

¥ EdenPlast™- Conditioned at 55-60 % Relative Humidity (RH) values instead at 50%RH, and mechanical characterization of extruded composite filaments of 1.5-2.0 mm in diameter at 25 mm/min, instead of ASTM D638.

Ref#1 - https://www.unitika.co.jp/plastics/e/nylon/nano-nylon6/index.html

Ref#2- http://www.nylon.com.tw/detail_b6.html

Ref#3 - http://3q5kmr43xszjufrhq2afw9w1.wpengine.netdna-cdn.com/wp-content/uploads/sites/57/2015/04/ms0825nylon.pdf

Ref#4-http://www.matweb.com/search/GetMatlsByManufacturer.aspx?navletter=C&manID=482&manname=Cresset

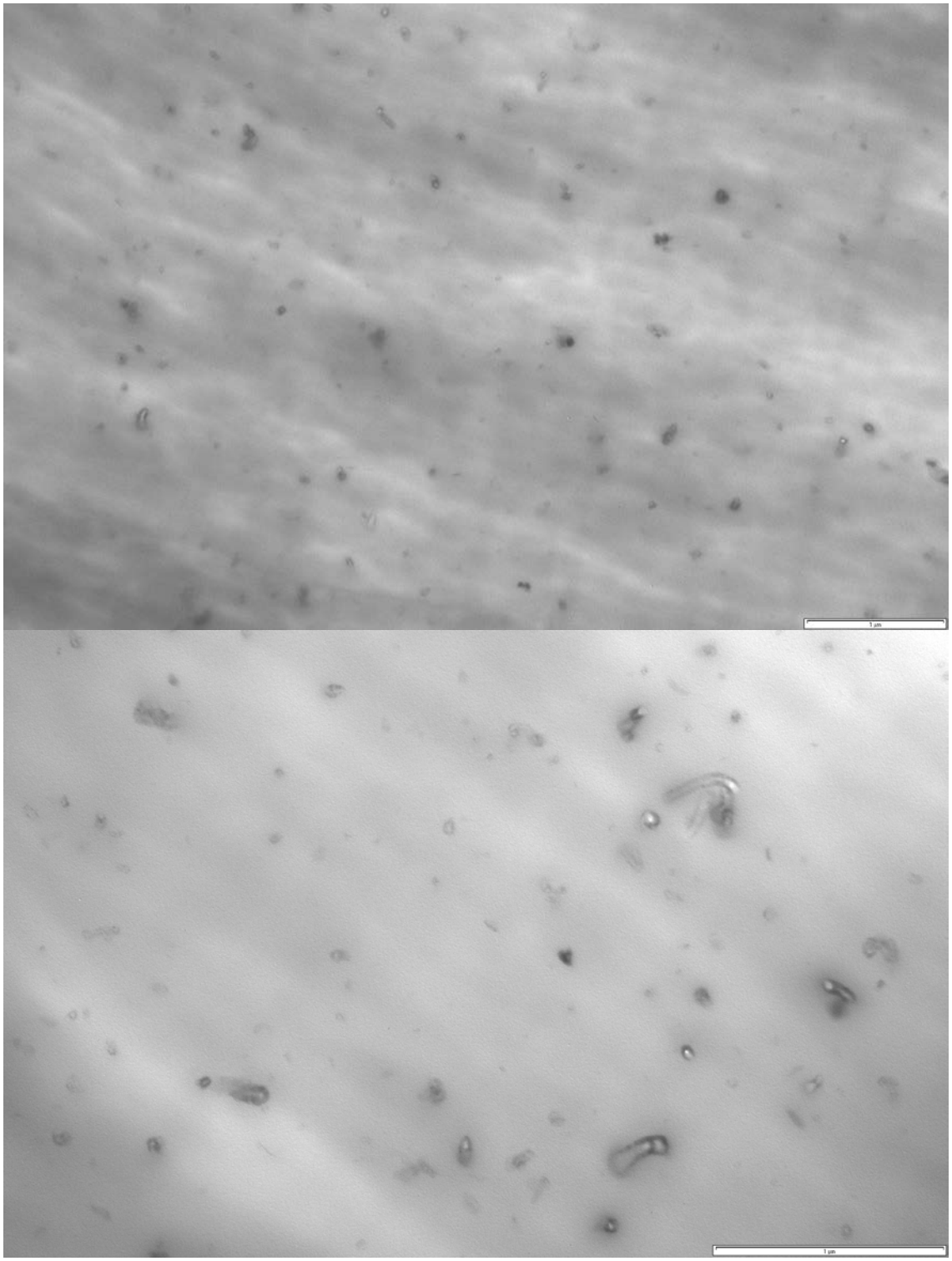

Figure 2. Excellent dispersion levels of both the CNT and other nanoparticles achieved with no significant agglomeration found in several TEM micrograph images.

Gregory H. Solomon
Executive Chairman