



ACN 109 200 900

## AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

1 October 2015

### EDENCRETE™ - US UPDATE

#### 28 DAY RESULTS FROM SECOND GDOT FIELD TRIAL ON I-20 SHOW 26.3% IMPROVEMENT

Perth-based Eden Energy Limited (ASX: EDE) is pleased to announce that the 28 day compressive strength results from the recent Georgia Department of Transport (GDOT) field trial of EdenCrete™ enriched concrete on the Interstate Highway I-20 in Augusta, Georgia showed a 26,3% improvement over the control mix.

#### 28 Day Strength Results from Independent Laboratory Show 26.3% Improvement

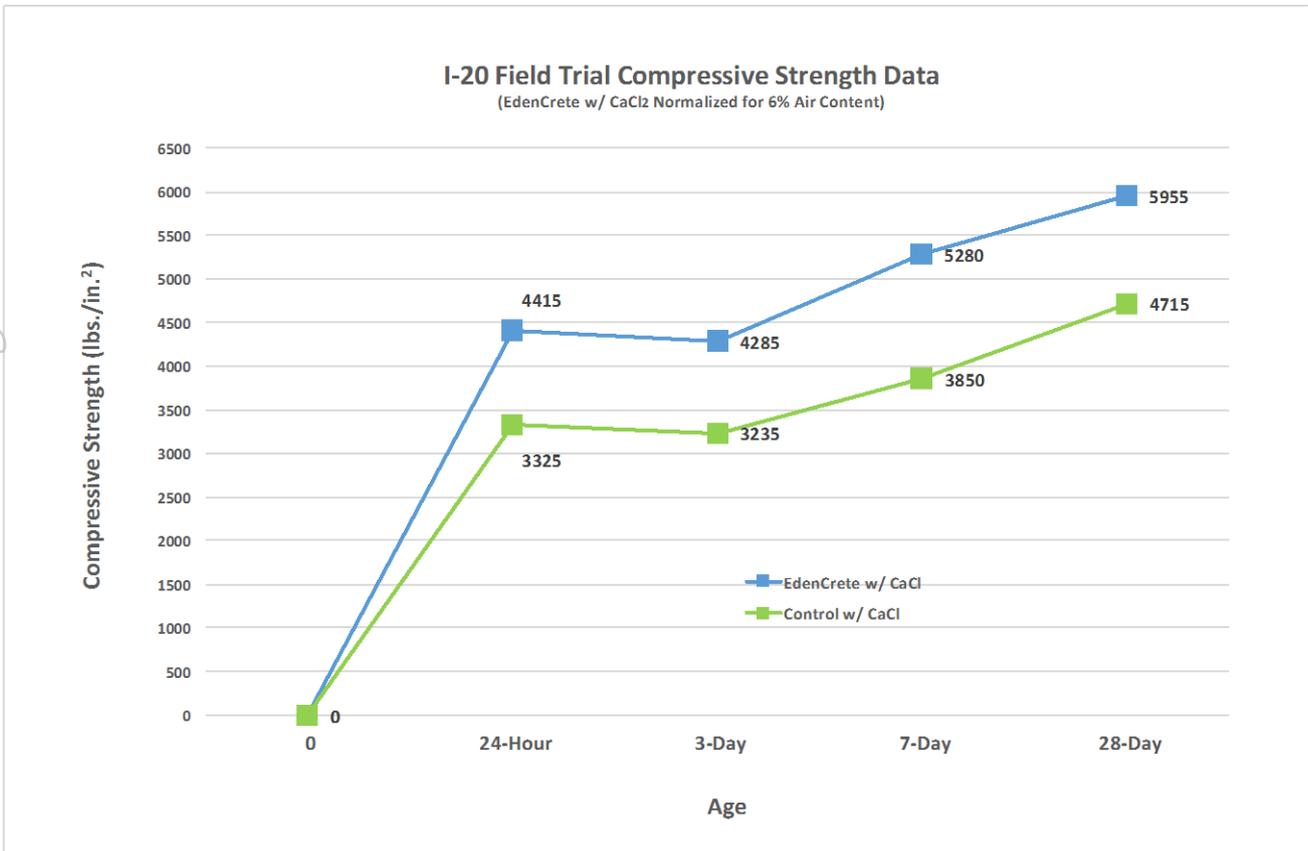
The strength results, which now include the results at 28 days, of EdenCrete™ concrete where the accelerant (calcium chloride) was used, continue the same trend showing that EdenCrete™ concrete exceeded the compressive strength of the control mixture (with the accelerant but without EdenCrete™) by the following:

- At 24 Hours - 32.8%
- At 3 Days - 32.5%
- At 7 Days - 37.1%
- At 28 Days - 26.3%

The concrete mix used in the 28 day tests from the second field trial was made with the addition of a 24-hour chemical accelerant. Accelerants reduce the time required for the concrete to harden, which is important in enabling GDOT to re-open, for public use, earlier than if the accelerant were not added, the section of highway that is being repaired. The independent laboratory that conducted the tests is a GDOT-approved laboratory in Augusta, Georgia.

**Further tests are yet to be undertaken at 56 days. Abrasion testing (ASTM C779) in Colorado at 56 days of age of test cylinders will also take place.**

The 28 day results, (which, as with the earlier results at 24 hours, 3 days and 7 days, have been normalised to adjust for the variations between the various delivered batches in the amount of contained air in the concrete, which impacts its compressive strength), confirm a trend of increased compressive strength achieved by the Class 24-Hour Accelerated EdenCrete™ over that of the Class 24-Hour Accelerated Control mixture without added EdenCrete™ as shown on the chart below.



As previously foreshadowed, the magnitude in strength difference did not continue to grow at the same rate, and may tend to level off further with the 56 days test.

Further, also as previously advised, concurrent tests are also being undertaken by GDOT, using test cylinders, cast by the independent laboratory.

After normalizing the EdenCrete™ strength data for the varied air content of the control mixture, the 28 day compressive strength measured by the GDOT laboratory shows EdenCrete™ to have exceeded the compressive strength of the control mixture by 16.2%.

The earlier compressive strength results obtained by the GDOT laboratory showed an improvement of EdenCrete™ of 40.5% at 24 hours, 25.1% at 3 days, and 26.3% at 7 days, compared with the strengths measured by the independent laboratory which showed increased compressive strengths of 32.8% at 24-hour, and increases of 32.5% at 3 days and 37.1% at 7 days.

Whilst the improvement in compressive strength of the EdenCrete™ sample in the last three GDOT laboratory results is less than the comparable results from the independent laboratory, nevertheless the differences are within the range permitted under the ASTM standards for tests conducted at different laboratories using the same concrete mix, with both data sets clearly confirming the trend of the EdenCrete™ concrete significantly out-performing the control mix.

### EdenCrete™ I-20 Field Trials

As previously announced (ASX: 27 August 2015 and 17 September 2015), on 26 August 2015 a second field trial of EdenCrete™ enriched concrete was undertaken on I-20 in Augusta. This trial involved the pouring of an additional replacement concrete slab on I-20 abutting the first EdenCrete™ enriched slab poured in the first field trial on 11 August 2015. The concrete used in the slab included EdenCrete™ and this was compared with the results from a second slab that was poured using the same concrete mix but with no added EdenCrete™, giving a basis for comparison of the benefits EdenCrete™ delivers.

Samples of all the concrete from the trial were made on the job-site by an independent, GDOT approved, laboratory, which is conducting the independent comparative compressive strength testing. The longer term performance results from both the EdenCrete™ enriched slabs from the field trials and the control slab will be monitored and assessed by GDOT against the results from the laboratory tests.

Whilst neither the timetable of this process nor the outcome are certain, Eden is nevertheless further encouraged by the results to date and the possible performance and commercial benefits that the use of EdenCrete™ could potentially deliver to GDOT on its future highway (and other infrastructure) maintenance and construction programmes.

### **Georgia Infrastructure Market**

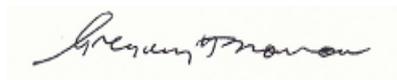
In addition to thousands of miles of concrete roads and highways, Georgia has in excess of 15,000 concrete bridges (ranging from small to large), a recent audit of which indicated that over 4,000 were not suitable for repair and need to be replaced over the next 20 years, at an estimated annual cost in excess of \$300 million per year.

If this process in Georgia results in an approval by GDOT of the use of EdenCrete™ in concrete for its infrastructure is obtained, it is considered likely to accelerate the process of obtaining similar approvals by the Departments of Transport in other US states, with Eden's longer term objective being the opening up of the national infrastructure market.

These on-going developments with the I-20 test results represent further encouraging progress towards Eden eventually achieving its longer-term goal of broad penetration of EdenCrete™ into the huge US infrastructure market.

### **BACKGROUND**

*EdenCrete™ is Eden's 100% owned, proprietary carbon-strengthened concrete additive, one of the primary target markets for which is improving the performance of concrete used in the construction and maintenance of concrete roads, bridges and other infrastructure. Additionally, it has potential for use in a range of other applications including high-rise building construction, marine and coastal applications, water storage and pipelines, and pre-fabricated concrete structures and products.*



**Gregory H. Solomon**  
Executive Chairman