

**Form 51-102F3**  
**Material Change Report**

**Item 1 Name and Address of Company**

**ELCORA ADVANCED MATERIALS** (the “Company”)

Suite 2630 – 1075 West Georgia Street  
Vancouver, BC V6E 3C9

**Item 2 Date of Material Change**

May 8, 2018

**Item 3 News Release**

The news release was disseminated on May 8, 2018 by way of the facilities of Newsfile. Copies were also filed on SEDAR with the applicable securities commission.

**Item 4 Summary of Material Change**

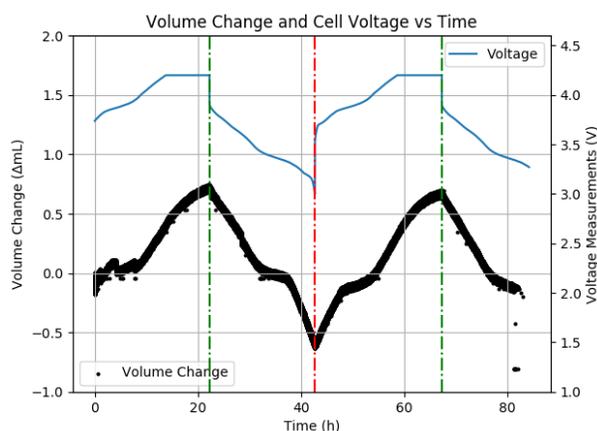
The Company announced the offering of advanced battery testing services. The company also announced that it has closed on an investment of \$1,000,000 which is part of a non-brokered private placement financing announced on April 10, 2018.

**Item 5 Full Description of Material Change**

**Item 5.1 Full Description of Material Change**

The Company is pleased to announce the offering of advanced battery testing services. Elcora has developed expertise in the measurement of volume change while a battery is being charged/discharged.

The measurement technique is based on a paper published by Dr. Jeff Dahn ‘[An Apparatus for the Study of In Situ Gas Evolution in Li-Ion Pouch Cells](#)’. In the paper Dr. Dahn describes how to use the Archimedes principal to measure volume changes in situ, while a cell is being charged/discharged (e.g. Figure 1).



*Figure 1 - Voltage/volume change vs. time*

Elcora uses optimized volume expansion measurement hardware and in-house battery testing channels to monitor the expansion/contraction of pouch cells in situ as they are being charged/discharged. The technique is useful for studying the following:

1. Continuous electrolyte degradation/decomposition during cycling
2. Volume expansion due to de/lithiation
  - a. Especially useful for high-capacity/large volume expansion materials like silicon
  - b. Volume expansion due to blended electrode formulations, for example:
    - i. Natural/Artificial graphite
    - ii. Graphite/Silicon
    - iii. NMC/LMO
3. Gas evolution during formation
4. Gas evolution as a function of cycling rate
5. Gas evolution as a function of temperature

6. Gas evolution as a function of additives (e.g. FEC)

Elcora has several channels dedicated to volume expansion measurements. Elcora is open to collaborations with battery cell manufacturers, researchers, and end-users (e.g. mobile electronics and automotive).

Dr. Shane Beattie, Ph.D., is the Qualified Person as defined under NI 43-101 who has reviewed and is responsible for the technical information presented in this news release

**Investment**

The Company is pleased to announce that it has closed on an Investment of \$1,000,000 which is part of a non-brokered private placement financing (the “Private Placement”) announced on April 10, 2018. Elcora has issued 3,125,000 units (“Units”) at a price of \$0.32 per Unit. Each Unit is comprised of one common share and one common share purchase warrant entitling the holder to purchase one additional common shares of Elcora at an exercise price of \$0.36 for two years following the closing of the Private Placement.

All securities issued pursuant to the Private Placement are subject to final TSX.V approval and to a statutory four-month hold period. The proceeds from the Private Placement will be used for funding additional graphite processing, graphene coating and lithium-Ion battery testing, and for general corporate purposes.

**Item 5.2 Disclosure for Restructuring Transactions**

Not applicable.

**Item 6 Reliance on subsection 7.1(2) or (3) of National Instrument 51-102**

Not applicable.

**Item 7 Omitted Information**

Not applicable.

**Item 8 Executive Officer**

Troy Grant, Director, President and CEO

Business Telephone: 902 802-8847

Facsimile: 902 446-2001

**Item 9 Date of Report**

May 8, 2018