



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

February 24, 2014

Via E-mail

William P. Noglows
Chief Executive Officer
Cabot Microelectronics Corporation
870 North Commons Drive
Aurora, Illinois 60504

Re: Cabot Microelectronics Corporation
Form 10-K for Fiscal Year Ended September 30, 2013
Filed November 20, 2013
File No. 000-30205

Dear Mr. Noglows:

We have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or the filing and the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief

cc (via e-mail): H. Carol Bernstein, General Counsel
Cabot Microelectronics Corporation