UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 7, 2015

Axcelis Technologies, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation) **000-30941** (Commission File Number) **34-1818596** (IRS Employer Identification No.)

01915 (Zip Code)

108 Cherry Hill Drive, Beverly, Massachusetts

(Address of principal executive offices)

Registrant's telephone number, including area code: (978) 787-4000

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01 Amendment of a Material Definitive Agreement.

On January 7, 2015, Axcelis Technologies, Inc. ("Axcelis") and Middleton Beverly Investors LLC ("Middleton") entered into an amendment to the Real Estate Sale Agreement dated October 3, 2014 (the "Purchase Agreement"). The Purchase Agreement relates to the sale by Axcelis and the purchase by Middleton of the Company's headquarters building at 108 Cherry Hill Drive, Beverly, Massachusetts, in exchange for a purchase price of \$50 million, payable in cash on the closing date. In the amendment, the parties agreed that the closing date will occur no later than January 30, 2015. The parties also agreed that terms of the Lease to be signed at closing could be modified from the original agreed terms to conform to the requirements of Middleton's lender if mutually agreeable to Axcelis and Middleton.

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: January 12, 2015

Axcelis Technologies, Inc.

By: /s/ KEVIN J. BREWER

Kevin J. Brewer Executive Vice President and Chief Financial Officer

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