

**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): **August 7, 2009**

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.)

108 Cherry Hill Drive, Beverly, Massachusetts
(Address of principal executive offices)

01915
(Zip Code)

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:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition

On August 7, 2009, Axcelis Technologies, Inc. (the "Company") issued a press release regarding its financial results for the quarter ended June 30, 2009. The Company's press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits

(c) Exhibits

99.1 Press Release dated August 7, 2009. Filed herewith.

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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: August 7, 2009

Axcelis Technologies, Inc.

By: /s/ STEPHEN G. BASSETT

Stephen G. Bassett
Executive Vice President and Chief Financial Officer

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AXCELIS ANNOUNCES FINANCIAL RESULTS FOR SECOND QUARTER 2009

BEVERLY, Mass.—August 7, 2009—Axcelis Technologies, Inc. (Nasdaq: ACLS) today announced financial results for the second quarter ended June 30, 2009. The Company reported second quarter revenue of \$33.6 million, compared to \$25.7 million for the first quarter of 2009. Net loss for the second quarter was \$22.4 million, or \$0.22 per share of which \$4.1 million (\$.04 per share) was attributable to restructuring charges. This compares to a net loss for the first quarter of 2009 of \$29.2 million, or \$0.28 per share. In the corresponding quarter for the previous year, the Company reported revenues of \$76.9 million, and net loss of \$19.4 million, or \$0.19 per share of which \$3.0 million was attributable to restructuring charges.

Second Quarter Detail

Shipments

Shipments, including aftermarket business, before provision for deferred revenue for the second quarter totaled \$28.0 million. Geographically, Axcelis' systems shipments were to: North America, 21%, Europe 10%, and Asia, 69%. The ion implantation business accounted for 69% of total shipments in the second quarter.

Orders and Backlog

Orders (new systems bookings and aftermarket) received for the second quarter totaled \$27.0 million. New systems bookings, excluding aftermarket, amounted to \$3.1 million. Backlog plus deferred systems revenue at quarter end was \$10.1 million. Backlog consists of systems orders (aftermarket orders are excluded) that are generally scheduled to ship within six months

Balance Sheet

Cash and cash equivalents, including restricted cash, were \$56.7 million at June 30, 2009. The Company ended the quarter with working capital of \$187.7 million.

Second Quarter 2009 Conference Call

The Company will also be hosting a conference call today, August 7th, beginning at 10:00 am ET to discuss the second quarter. The call will be available to interested listeners via an audio webcast that can be accessed through Axcelis' home page at www.axcelis.com, or by dialing 1-800.265.0241 (1-617.847.8704 outside North America). Participants calling into the conference call will be requested to provide company name, Axcelis Technologies, and passcode: 46861580. An audio replay will be available at 1-888-286-8010 (1-617-801-6888 outside North America) from 1:00 pm ET on August 7, 2009 until 11:59 pm ET August 21, 2009. Please use passcode 43415458 to access this replay.

About Axcelis

Axcelis Technologies, Inc. (Nasdaq: ACLS) headquartered in Beverly, Massachusetts, provides innovative, high-productivity solutions for the semiconductor industry. Axcelis is dedicated to developing enabling process applications through the design, manufacture and complete life support of ion implantation and cleaning systems. The company's Internet address is: www.axcelis.com.

Company Contacts:

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Axcelis Technologies, Inc.
Consolidated Statements of Operations
In thousands, except per share amounts
(Unaudited)

	Three Months ended June 30,		Six Months ended June 30,	
	2009	2008	2009	2008
Revenue	33,550	76,889	59,278	161,783
Cost of revenue	27,664	49,799	50,385	105,477
Gross profit	5,886	27,090	8,893	56,306
Operating expenses				

Research and development	7,752	16,954	17,287	33,807
Sales and marketing	6,285	12,475	13,164	24,380
General and administrative	8,531	10,878	19,201	20,692
Amortization of intangible assets	—	656	—	1,312
Restructuring charges	4,114	3,017	5,098	3,068
	<u>26,682</u>	<u>43,980</u>	<u>54,750</u>	<u>83,259</u>
Loss from operations	(20,796)	(16,890)	(45,857)	(26,953)
Other income (expense)				
Gain on sale of SEN	—	—	1,080	—
Equity income (loss) of SEN	—	(133)	(3,238)	(132)
Interest income	30	391	93	1,081
Interest expense	—	(1,680)	(1,676)	(3,281)
Other-net	(1,311)	(767)	(1,516)	(449)
	<u>(1,281)</u>	<u>(2,189)</u>	<u>(5,257)</u>	<u>(2,781)</u>
Loss before income taxes	(22,077)	(19,079)	(51,114)	(29,734)
Income taxes	302	318	420	744
Net loss	<u>\$ (22,379)</u>	<u>\$ (19,397)</u>	<u>\$ (51,534)</u>	<u>\$ (30,478)</u>
Net loss per share				
Basic and diluted net loss per share	<u>\$ (0.22)</u>	<u>\$ (0.19)</u>	<u>\$ (0.50)</u>	<u>\$ (0.30)</u>
Shares used in computing basic and diluted net loss per share				
Weighted average common shares	<u>103,286</u>	<u>102,450</u>	<u>103,285</u>	<u>102,449</u>

Axcelis Technologies, Inc.
Consolidated Balance Sheets
In thousands
(Unaudited)

	<u>June 30,</u> <u>2009</u>	<u>December 31,</u> <u>2008</u>
Assets		
Current assets		
Cash and cash equivalents	\$ 49,771	\$ 37,694
Restricted cash	6,927	8,654
Accounts receivable, net	23,305	27,486
Inventories, net	132,985	150,113
Prepaid expenses and other current assets	11,160	17,231
Total current assets	<u>224,148</u>	<u>241,178</u>
Property, plant and equipment, net	42,876	44,432
Investment in SEN	—	156,677
Other assets	11,157	12,894
	<u>\$ 278,181</u>	<u>\$ 455,181</u>
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	\$ 6,796	\$ 8,066
Accrued compensation	16,095	15,841
Warranty	1,251	3,137
Income taxes	504	337
Deferred revenue	7,906	12,508
Other current liabilities	3,866	6,897
Current portion of convertible subordinated debt	—	83,210
Total current liabilities	<u>36,418</u>	<u>129,996</u>
Long-term deferred revenue	1,402	1,872
Other long-term liabilities	<u>3,567</u>	<u>3,936</u>
Stockholders' equity		
Preferred Stock	—	—
Common stock	104	103
Additional paid-in capital	484,929	483,546
Treasury stock	(1,218)	(1,218)

Accumulated deficit	(250,013)	(198,479)
Accumulated other comprehensive income	<u>2,992</u>	<u>35,425</u>
	236,794	319,377
	<u>\$ 278,181</u>	<u>\$ 455,181</u>
