FORM 4

[] Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL

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| | 1 | | | <u> </u> |
|--------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|
| 1. Name and Address of Reporting Pe Bisson, Kevin | rson* | Issuer Name and Ticker or Trading Symbol | Statement for Month/Day/Year | 6. Relationship of Reporting Person(s) to Issuer (Check all applicable) |
| (Last) (First) c/o Axcelis Technologies, Inc. 55 Cherry Hill Drive | Axcelis Technologies, Inc. | | 12/20/2002 | _ Director _ 10% Owner X Officer (give title below) _ Other (specify below) |
| (Street) Beverly, MA 01915 | | 3. I.R.S. Identification Number of Reporting Person, if an entity | 5. If Amendment, Date of Original | Description <u>Vice President, Finance</u> |
| (City) (State) | (Zip) | (voluntary) | (Month/Day/Year) | 7. Individual or Joint/Group Filing (Check Applicable Line) |
| | | | | X Form filed by One Reporting Person Form filed by More than One Reporting Person |

| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | |
|----------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------|---|--------|-----|-------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------|--|--|
| 1. Title of Security (Instr. 3) | 2.Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) 4. Securities Of (D) (Instr. 3, 4 | | | , | or Disposed | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) | 6. Owner- ship Form: Direct (D) or Indirect (I) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | | Code | V | Amount | A/D | Price | (Instr. 3 and 4) | (Instr. 4) | | | |

| | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | | | | | | | |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|-------------------------------|---|------------|---|------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/ Day/ Year) | 3A. Deemed Execution Date, if any (Month/ Day/ Year) | 4. Transa Code (Insi | | Securities | | 6. Date Exercisable(DE) and Expiration Date(ED) (Month/Day/Year) | | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr.5) | 9. Number of Derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr.4) | 10. Owner- ship Form of Deriv- ative Securities: Direct (D) or Indirect (I) | 11. Nature of Indirect Beneficial Ownership (Instr.4) |
| | | | | Code | V | А | D | DE | ED | Title | Amount or Number of Shares | | | (Instr.4) | |
| Stock option (right to buy) | \$5.85 | 12/20/2002 | | A(1) | | 6,250 | | (2) | 6/21/2012 | Common Stock | 6,250 | \$ | 6,250 | D | |

Explanation of Responses:

- (1) Granted pursuant ot hte Axcelis Technologies, Inc. 2000 Stock Plan.
- (2) Exercisable as to 25% of the total shares on each of 6/21/03, 6/21/04, 6/21/05 and 6/21/06.

By:

/s/ Lynnette C. Fallon, Attorney-in-fact on behalf of Kevin Bisson

** Signature of Reporting Person

12/20/02

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1474 (9-02)

* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

*Interform is filed by more reporting person, see instruction (40)(v).

*Interform is filed by more reporting person, see instruction (40)(v).

*Interform is filed by more reporting person, see instruction See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.