FORM 4

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

| OMB APPROVAL | | | | | |
|--------------------|-----------|--|--|--|--|
| OMB Number: | 3235-0287 | | | | |
| Estimated average | burden | | | | |
| nours per response | e 0.5 | | | | |

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| (Print or Type Responses) 1. Name and Address of Reporting Person * Lorig Brian | | | 2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC] | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) | | | | | |
|--|---|--|--|--------------------|--------------------|--|---|--|---|------------------------------|--|--|-------------------------------------|-------------|
| (Last) (First) (Middle) ONE TECHNOLOGY DRIVE | | | 3. Date of Earliest Transaction (Month/Day/Year) 11/17/2017 | | | | | | Director 10% Owner X Officer (give title below) Other (specify below) SVP | | | | | |
| (Street) MILPITAS, CA 95035 | | | 4. If Amendment, Date Original Filed(Month/Day/Year) | | | | | 6. Individual or Joint/Group Filing(Check Applicable Line) _X_Form filed by One Reporting Person _Form filed by More than One Reporting Person | | | | | | |
| (City) (State) (Zip) | | | Table I - Non-Derivative Securities Acqui | | | | | ired, Disposed of, or Beneficially Owned | | | | | | |
| (Instr. 3) Date | | 2. Transaction Date (Month/Day/Year) | any | if Code (Instr. | Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) | | Following | Ownership Form: | Beneficial | |
| | | | | (Month/Day/Yea | Cod | e V | Amount | (A) or (D) | Price | (I) | | or Indirect | Ownership (Instr. 4) | |
| Common | Stock | | 11/17/2017 | | S | | 836 (1) | D | \$ 105.76 | 566 | | D | | |
| | Common Stock - Restricted Stock Units (2) | | | | | | | | 19,178 (3) | | | D | | |
| Reminder: 1 | Report on a s | separate line f | | Derivative Secu | rities Acq | Pe co the | rsons wh ntained in e form dis | no responding this factoring the second seco | form are a currei eneficial | not requesting noting valid | OMB conf | ormation spond unle trol numbe | ss | 1474 (9-02) |
| Security | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day) | on 3A. Deemed Execution Day (Year) any | 4. | 5. | and Expiration Date (Month/Day/Year) It ive ties red sed 3, | | 7. Ti Amo Und Secu | Title and nount of derlying curities attr. 3 and 8. Price of 9. Note that the privative between the privative security securities (Instr. 5) Ber Ow Fol Rep Tra | | 9. Number Derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Ownersl Form of Derivati Security Direct (I or Indire | Benefici Ownersh : (Instr. 4) | |
| | | | | Code | V (A) | | ate xercisable | Expirat Date | tion Title | or Number of Shares | per | | | |

Reporting Owners

| | Relationships | | | | | |
|--------------------------------|---------------|--------------|---------|-------|--|--|
| Reporting Owner Name / Address | Director | 10% Owner | Officer | Other | | |
| Lorig Brian | | | | | | |
| ONE TECHNOLOGY DRIVE | | | SVP | | | |
| MILPITAS, CA 95035 | | | | | | |

Signatures

| /s/ Teri A. Little, attorney-in-fact for Brian Lorig | 11/20/2017 |
|--|------------|
| **Signature of Reporting Person | Date |

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) This sale was effected pursuant to the terms of a Rule 10b5-1 trading plan adopted by the Reporting Person on May 10, 2017.
- (2) Each restricted stock unit ("RSU") represents a contingent right to receive one share of KLA-Tencor common stock.
- (3) Does not include performance-based RSUs, if any, held by the Reporting Person for which an assessment has not yet been made regarding the achievement of the applicable performance goals. Any such holdings will be reported on a Form 4 within two business days of the date such assessment is made.

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.