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

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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

MILPITAS, CA 95035 (City) (State) (Zip) Table I - Non-Derivative S 1.Title of Security 2. Transaction 2A. Deemed 3. Transaction 4. Security				
C/O KLA-TENCOR CORPORATION, ONE TECHNOLOGY DRIVE (Street) 4. If Amendment, Date Original Filed(Month MILPITAS, CA 95035 (City) (State) (State) (Zip) Table I - Non-Derivative State of Security 2. Transaction 2. Transaction 2. Transaction 2. Transaction 3. Transaction 4. Security	(Check all applicab	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner		
MILPITAS, CA 95035 (City) (State) (Zip) Table I - Non-Derivative S 1.Title of Security 2. Transaction 2A. Deemed 3. Transaction 4. Security	X Officer (give title below) Ott Executive Vice Pres	her (specify below) sident		
(City) (State) (Zip) Table I - Non-Derivative S 1.Title of Security 2. Transaction 2A. Deemed 3. Transaction 4. Security	4. If Amendment, Date Original Filed(Month/Day/Year) 6. Individual or Joint/Group Filing(Check Applicable Lin_X_ Form filed by One Reporting Person Form filed by More than One Reporting Person			
1.Title of Security 2. Transaction 2A. Deemed 3. Transaction 4. Security				
	Securities Acquired, Disposed of, or Beneficially O	wned		
(Month/Day/Year) any (Instr. 8) (Instr. 3	Reported Transaction(s)	Ownership of Indirect Beneficial		
(Month/Day/Year) Code V Amoun	(A) or (I	Ownership (Instr. 4) Instr. 4)		
Common Stock - Restricted Stock Units (1) A 26,764 (2)	4 A \$ 0 92,856 (3))		
Common Stock	12,778.917 E)		
contained in the form dis Table II - Derivative Securities Acquired, Disposed of	to respond to the collection of information in this form are not required to respond unless splays a currently valid OMB control number. of, or Beneficially Owned	SEC 1474 (9-02)		
	cisable on Date (Year) Year) 7. Title and Amount of Underlying Securities (Instr. 3 and 4) Amount of Underlying Security (Instr. 5) Securities (Instr. 5) Amount or Title Number Amount or Number Amount or Number Amount or Number	Ownership Form of Derivative Security: Direct (D) or Indirect		
Reporting Owners	of Shares			

	Relationships			
Reporting Owner Name / Address	Director	10% Owner	Officer	Other
Bell Bobby R C/O KLA-TENCOR CORPORATION ONE TECHNOLOGY DRIVE MILPITAS, CA 95035			Executive Vice President	

Signatures

Teri A. Little as Attorney-In-Fact for Bobby R. Bell		11/11/2016
**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) Each restricted stock unit ("RSU") represents a contingent right to receive one share of KLA-Tencor common stock.
- On November 11, 2016, the Reporting Person was granted RSUs for 26,764 shares of KLA-Tencor common stock which vest 25% annually beginning November 11, 2017, subject to continued service on each vesting date.
- (3) Does not include performance-based RSUs 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.