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

OMB APPROVAL OMB Number: 3235-0287 Estimated average burden hours per response... 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 * Bell Bobby R					2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC]							5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner				
(Last) (First) (Middle) C/O KLA-TENCOR CORPORATION, ONE TECHNOLOGY DRIVE					3. Date of Earliest Transaction (Month/Day/Year) 08/21/2017							X Officer (give title below) Other (specify below)  Executive Vice President				
(Street) MILPITAS, CA 95035				4. If	4. If Amendment, Date Original Filed(Month/Day/Year)							6. Individual or Joint/Group Filing(Check Applicable Line)  Form filed by One Reporting Person Form filed by More than One Reporting Person				
(City) (State) (Zip)					Table I - Non-Derivative Securities Acqu							ired, Disposed of, or Beneficially Owned				
1.Title of Security (Instr. 3)			2. Transaction Date (Month/Day/Year	Exec any	2A. Deemed Execution Date, if any (Month/Day/Year)		(Instr. 8)		4. Securities Acquired (A) or Disposed of (D (Instr. 3, 4 and 5)		of (D)	Beneficially Owned Following Reported Transaction(s)			Ownership Form:	Beneficial
				(Mo			Code	V	Amoun	(A) or (D)	Price	(Instr. 3 a	str. 3 and 4)		Direct (D) or Indirect (I) (Instr. 4)	Ownership (Instr. 4)
Common	Stock		08/21/2017				S		3,526 (1)		\$ 89.93	9,632.9	17		D	
Common Stock Un	Stock - R its <sup>(2)</sup>	estricted										69,956	(3)		D	
Reminder, 1	exeport on a s	oparate line is	Table II	Deriv	ative Sec	curiti	es Acqui	Personn cont the	sons whatained in	no responding this for splays a	orm ar a curre meficia	e not requently valid	OMB con	formation spond unle trol numbe	ss	2 1474 (9-02)
Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transactio Date (Month/Day/	Year) Execution D	ate, if	4. Transaction Code Year) (Instr. 8)		5.	6. D and (Mo	and Expiration Date (Month/Day/Year) Ar Ur Se			Title and ount of derlying urities str. 3 and	8. Price of Derivative Security (Instr. 5)	9. Number o Derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4)	Owners Form of Derivat Securit Direct or India	Beneficia Ownershi (Instr. 4)
					Code	V	(A) (D			Expiration Date	on Titl	Amount or e Number of Shares				
Repor	ting O	wners														

	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**

/s/ Teri A. Little as Attorney-In-Fact for Bobby R. Bell	08/22/2017
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 June 9, 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.