# FORM 4

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

OMB APPROVAL
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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

(Print or Ty)			rson *	2 Issuer	Name a	nd Ticke	er or T	rading Sy	mhol		5. Relation	nship of Ren	orting Perso	n(s) to Issue	r
Name and Address of Reporting Person  Little Teri A.				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) ONE TECHNOLOGY DRIVE				3. Date of Earliest Transaction (Month/Day/Year) 08/04/2017						X Officer (give title below) Other (specify below)  SVP, GC and Secretary					
(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 Acquired, Disposed of, or Beneficially Owne					Owned						
1.Title of S (Instr. 3)	Title of Security 2. Transaction Date (Month/Day/Year)		2A. Deemed Execution Date, if		f Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		d of (D)	D) Beneficially Owned Following Reported Transaction(s)			Ownership of Form:	Beneficial	
					Code	e V	Amou	(A) or (D)	Price	(Instr. 3 and 4)				Ownership (Instr. 4)	
Common Stock 0		08/04/2017			M		1,900 (1)	A	\$ 0	11,349			D		
Common Stock 0		08/04/2017			F		715	2) D	\$ 88.83	10,634		D			
Common Stock - Restricted Stock Unit (3)										30,623 (4)		D			
Reminder:	Report on a s	separate line fo	or each class of secur		,		Per cor the	sons w ntained i form di	no resp in this f splays	orm are a curre	e not requ ntly valid	OMB con	formation spond unle trol numbe	ss	1474 (9-02)
			,	Derivative ( e.g., puts, c							lly Owned		1		
1. Title of Derivative Security (Instr. 3) Price of Derivative Security		3. Transaction Date (Month/Day/	Year) Execution Data	Code of Deri Sect Acq (A) Disp of (I (Instr. 8)		Number of Derivativ Securitie	Number of (Moro Derivative securities Acquired AA) or Disposed of (D) Instr. 3,		ate Exercisable Expiration Date nth/Day/Year)		itle and ount of lerlying urities tr. 3 and	Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned Following Reported Transaction(s (Instr. 4)	Ownersh Form of Derivati Security Direct (I or Indire	Benefici Ownersh (Instr. 4)
				Cod	e V	(A) (E		te ercisable	Expirati Date	Title	Amount or Number of Shares				

### **Reporting Owners**

	Relationships						
Reporting Owner Name / Address	Director	10% Owner	Officer	Other			
Little Teri A. ONE TECHNOLOGY DRIVE MILPITAS, CA 95035			SVP, GC and Secretary				

## **Signatures**

Teri A. Little	08/07/2017

#### **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) On August 4, 2016, the Reporting Person received a grant of RSUs covering 7,600 shares of KLA-Tencor common stock. On August 4, 2017, the Reporting Person vested in 25% of such RSUs.
- (2) Pursuant to such terms of the August 4, 2016 RSU grant, 715 shares of KLA-Tencor common stock were automatically withheld at vesting to cover required tax withholding.
- (3) Each restricted stock unit ("RSU") represents a contingent right to receive one share of KLA-Tencor common stock.
- 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.