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

Name and Address of Reporting Person * Kirk Michael			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) C/O KLA-TENCOR CORPORATION, ONE TECHNOLOGY DRIVE			3. Date of Earliest Transaction (Month/Day/Year) 02/08/2016						X Officer (give title below) Other (specify below) Executive Vice President					
(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 PersonForm 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)	2A. Deemed Execution Date, any	(Instr. 8)		(A) or	n 4. Securities Acquire (A) or Disposed of (I (Instr. 3, 4 and 5)		D) Beneficially Owned Followin Reported Transaction(s)		Following (s)	Form:	Beneficial	
				(Month/Day/Yea	co Co	de	V Amoun	(A) or (D)	Price	(Instr. 3 a	3 and 4)		Direct (D) Ownership or Indirect (I) (Instr. 4)	Ownership (Instr. 4)
Common	Stock		02/08/2016		S	1)	3,844	D	\$ 64.6	916			D	
	Stock - R	estricted								61 140	(3)		D	
Stock Ur	nits (2)			1 6 . 11						61,148	<u> </u>		D	
Stock Ur	nits (2)			Derivative Securi	ties Acc	P c th quired	ersons whontained in the form disposed	o respo n this fo splays a of, or Be	nd to rm are curre	the collect not requ	ction of inf		SEC	1474 (9-02)
Stock Ur Reminder: 1. Title of	nits (2) Report on a s	3. Transaction	Table II - I (n 3A. Deemed Execution Da any	Derivative Securi e.g., puts, calls, v	ities Acovarrant	quired s, option er a a (tive ties red sed 3,	ersons whontained in the form disposed	no respondent this for splays a sof, or Bertible secutible on Date	nd to rm are currel neficial urities) 7. The American Und Security	the collect not requ	ction of inf uired to res OMB conf	formation spond unle trol number	SEC SS 10. Ownersh Form of Derivati Security Direct (I or Indire	11. Natur of Indire Beneficia Ownersh (Instr. 4)

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

Signatures

Teri A. Little as Attorney-in-Fact for Michael Kirk	02/10/2016

****	Date
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 is effected pursuant to the terms of a rule 10b5-1 trading plan adopted by the Reporting Person on June 1, 2015.
- (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.