FORM	4
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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).

(Print or Type Pespo

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

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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 P Lorig Brian	2. Issuer Name an KLA TENCOR			0 2	ibol	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner				
(Last) (First) ONE TECHNOLOGY DRIVI	3. Date of Earliest 09/03/2017	Transaction	n (Mo	onth/Day/	Year)	X_Officer (give title below) Other (specify below) SVP				
(Street) MILPITAS, CA 95035	4. If Amendment, I	Date Origin	al Fi	led(Month/I	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)	Tal	ble I - Non	-Der	ivative Se	red, Disposed of, or Beneficially Owned					
1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)		ction	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	Ownership Form:	Beneficial
		(Wolitik Day Tear)	Code	v	Amount	(A) or (D)	Price	(IIISU: 5 aliu 4)		Ownership (Instr. 4)
Common Stock	09/03/2017		М		662 <mark>(1)</mark>	А	\$ 0	1,228	D	
Common Stock	09/03/2017		F		249 <mark>(2)</mark>	D	\$ 94.08	979	D	
Common Stock	09/04/2017		М		1,528 (<u>3</u>)	А	\$ 0	2,507	D	
Common Stock	09/04/2017		F		575 <mark>(2)</mark>	D	\$ 94.08	1,932	D	
Common Stock	09/04/2017		М		611 <mark>(4)</mark>	А	\$ 0	2,543	D	
Common Stock	09/04/2017		F		230 (2)	D	\$ 94.08	2,313	D	
Common Stock	09/04/2017		М		550 <mark>(5)</mark>	А	\$ 0	2,863	D	
Common Stock	09/04/2017		F		207 <mark>(2)</mark>	D	\$ 94.08	2,656	D	
Common Stock - Restricted Stock Units (6)	09/04/2017		А		2,574 (7)	А	\$ 0	21,971 (8)	D	
Common Stock - Restricted Stock Units	09/04/2017		М		1,287 (9)	D	\$ 0	20,684	D	
Common Stock	09/04/2017		М		1,287 (9)	А	\$ 0	3,943	D	
Common Stock	09/04/2017		F		484 <mark>(2)</mark>	D	\$ 94.08	3,459	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1474 (9-02)

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 Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned

 (e.g., puts calls warrants options convertible securities)

			(e.g.,	puts, cans, w	arrants, op	tions, convertible securi	illes)				
1. Title of	2.	3. Transaction	3A. Deemed	4.	5.	6. Date Exercisable	7. Title and	8. Price of	9. Number of	10.	11. Nature
Derivative	Conversion	Date	Execution Date, if	Transaction	Number	and Expiration Date	Amount of	Derivative	Derivative	Ownership	of Indirect
Security	or Exercise	(Month/Day/Year)	any	Code	of	(Month/Day/Year)	Underlying	Security	Securities	Form of	Beneficial
(Instr. 3)	Price of		(Month/Day/Year)	(Instr. 8)	Derivative		Securities	(Instr. 5)	Beneficially	Derivative	Ownership
	Derivative				Securities		(Instr. 3 and		Owned	Security:	(Instr. 4)
	Security				Acquired		4)		Following	Direct (D)	
					(A) or				Reported	or Indirect	
					Disposed				Transaction(s)	(I)	
					of (D)				(Instr. 4)	(Instr. 4)	
					(Instr. 3,						
					4, and 5)						
						I <u></u>					

					Date Exercisable	Expiration Date	Amount or Number		
	Code	v	(A)	(D)			of Shares		

Reporting Owners

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

Signatures

 /s/ Teri A. Little, attorney-in-fact for Brian Lorig
 09/06/2017

 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) On September 3, 2015, the Reporting Person received a grant of restricted stock units ("RSUs") covering 2,647 shares of KLA-Tencor common stock. On September 3, 2017, the Reporting Person vested in twenty-five percent (25%) of such RSUs.
- Pursuant to the terms of the grant, shares of KLA-Tencor common stock were automatically withheld at vesting to cover required tax withholding. The fair market value of (2) KLA-Tencor common stock used for purposes of calculating the number of shares to be withheld was the closing price of KLA-Tencor common stock as reported on September 1, 2017.
- (3) On September 4, 2013, the Reporting Person received a grant of performance-based RSUs that was determined by the Compensation Committee of KLA-Tencor's Board of directors to cover 3,056 shares of KLA-Tencor common stock. On September 4, 2017, the Reporting Person vested in fifty percent (50%) of such performance-based RSUs.
- (4) On September 4, 2013, the Reporting Person received a grant of restricted stock units ("RSUs") covering 2,445 shares of KLA-Tencor common stock. On September 4, 2017, the Reporting Person vested in twenty-five percent (25%) of such RSUs.
- (5) On September 4, 2014, the Reporting Person received a grant of restricted stock units ("RSUs") covering 2,200 shares of KLA-Tencor common stock. On September 4, 2017, the Reporting Person vested in twenty-five percent (25%) of such RSUs.
- (6) Each restricted stock unit ("RSU") represents a contingent right to receive one share of KLA-Tencor common stock.
- On September 4, 2014, in addition to the RSUs granted on that date that were subject only to service-vesting requirements (which RSUs were previously reported on Form (7) 4), the Reporting Person was also granted RSUs covering up to a maximum of 2,750 shares (based on 125% of the target shares of 2,200) of KLA-Tencor common stock, subject to both performance-vesting and service-vesting requirements. On August 31, 2017 the Compensation Committee of KLA-Tencor's Board of Directors determined
- the level at which the corporate performance goals were attained and, based on the assessment, determined that the number of shares subject to the RSUs is 2,574. 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
- (8) performance goals. Any such holdings will be reported on a Form 4 within two business days of the date such assessment is made. Reflects the vesting of awards reflected above.
- The Reporting Person vested fifty percent (50%) of the performance-based RSUs on September 4, 2017 and will vest in the remaining fifty percent (50%) upon his (9) completion of four years of service following the grant date of the award (September 4, 2014). The shares of common stock will be issued as the performance-based RSUs vest.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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