FORM	4
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#### 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 R URBANEK LIDA	2. Issuer Name and KLA TENCOR			ng Symbo	l	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner					
C/O KLA TENCOR,	(Middle) LES	3. Date of Earliest T 08/02/2005	ransaction (	Mont	h/Day/Ye	ar)	Officer (give title below)	Other (specify b	pelow)		
SAN JOSE, CA 9513	4. If Amendment, D	ate 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 Owned								
1.Title of Security (Instr. 3)		2. Transaction Date2A. Deemed Execution Date, if (Month/Day/Year)3. Transaction Code4. Securities Acquired (A) or Disposed of (D) (Instr. 8)					Beneficial				
			(Month/Day/Year)	Code	v	Amount	(A) or (D)	Price	(Instr. 3 and 4)	Direct (D) or Indirect (I) (Instr. 4)	Ownership (Instr. 4)
Common Stock									1,946	D	
Common Stock									29,555	11	Family Foundation
Common Stock									1,271,414	Ι	by Trust

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

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 Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
 (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	Conversion	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if	4. Transac Code	tion )	5. Num of	ber vative rities uired or osed	Expiration Date (Month/Day/Year)		Expiration Date (Month/Day/Year)		n Date of Underlying		8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	Ownership Form of Derivative Security: Direct (D) or Indirect	Beneficial
				Code	v	4, an	,	Date Exercisable	Expiration Date	Title	Amount or Number of Shares						
Call Option (obligation to sell)	\$ 67.03	08/02/2005		J <u>(1)</u>			0 (1)	08/04/2008	08/04/2008	Common Stock	100,000	(1)	0 (1)	Ι	by Trust		
Put Option (right to sell)	\$ 43.79	08/02/2005		Р		0 (1)		08/04/2008	08/04/2008	Common Stock	100,000	<u>(1)</u>	0 (1)	Ι	by Trust		
Non- Qualified Stock Option	\$ 12.50							06/13/1996	05/13/2006	Common Stock	280		280	D			
Non- Qualified Stock Option	\$ 13.44							07/22/1999	07/22/2008	Common Stock	5,000		5,000	D			
Non- Qualified Stock Option	\$ 17.59							11/17/1998	11/17/2008	Common Stock	6,666		6,666	D			
Non- Qualified Stock Option	\$ 26.25							11/10/2000	11/10/2010	Common Stock	10,000		10,000	D			

Non- Qualified Stock Option	\$ 29			07/22/1998	07/22/2007	Common Stock	5,000	5,000	D	
Non- Qualified Stock Option	\$ 37.05			11/08/2002	11/08/2012	Common Stock	10,000	10,000	D	
Non- Qualified Stock Option	\$ 40.24			05/11/2005	05/11/2015	Common Stock	2,500	2,500	D	
Non- Qualified Stock Option	\$ 40.68			10/18/2004	10/18/2014	Common Stock	2,500	2,500	D	
Non- Qualified Stock Option	\$ 44.76			01/25/2005	01/25/2015	Common Stock	2,500	2,500	D	
Non- Qualified Stock Option	\$ 46.28			11/16/1999	11/16/2009	Common Stock	10,000	10,000	D	
Non- Qualified Stock Option	\$ 47.23			11/09/2001	11/09/2011	Common Stock	10,000	10,000	D	
Non- Qualified Stock Option	\$ 51.35			08/02/2005	08/02/2015	Common Stock	2,500	2,500	D	
Non- Qualified Stock Option	\$ 59.44			11/05/2003	11/05/2013	Common Stock	10,000	10,000	D	

## **Reporting Owners**

	Relationships							
Reporting Owner Name / Address	Director	10% Owner	Officer	Other				
URBANEK LIDA C/O KLA TENCOR 160 RIO ROBLES SAN JOSE, CA 95134	Х							

### Signatures

Lida Urbanek	08/04/2005
***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) The reporting person entered into a "zero-cost collar" arrangement pursuant to which she wrote a covered call option and purchased a put option. Only one of the options can be in the money on the expiration date, at which time the in-the-money option will be exercised (and settled for cash), and the other option will expire.

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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