#### KLA TENCOR CORP

Check this box if

no longer subject

to Section 16.

5 obligations

may continue.

Form 4 or Form

Form 5

August 11, 2006

#### **OMB APPROVAL** FORM 5

**OMB** 3235-0362 Number:

January 31,

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ANNUAL STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

See Instruction Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, 1(b). Form 3 Holdings Section 17(a) of the Public Utility Holding Company Act of 1935 or Section Reported 30(h) of the Investment Company Act of 1940

Form 4

Transactions Reported

1. Name and Ad URBANEK 1	•	orting Person *	2. Issuer Name <b>and</b> Ticker or Trading Symbol	5. Relationship of Reporting Person(s) to Issuer		
(Last)	(First)	(Middle)	KLA TENCOR CORP [klac] 3. Statement for Issuer's Fiscal Year Ended	(Check all applicable)		
			(Month/Day/Year) 06/30/2006	X Director 10% Owner Officer (give title Other (specify below)		
160 RIO RO	BLES			below)		
	(Street)		4. If Amendment, Date Original Filed(Month/Day/Year)	6. Individual or Joint/Group Reporting		
				(check applicable line)		

### SAN JOSE, CAÂ 95134

\_X\_ Form Filed by One Reporting Person Form Filed by More than One Reporting Person

(City)	(State) (	Zip) Tabl	e I - Non-Deri	ivative Sec	curitie	s Acqu	ired, Disposed	of, or Benefic	ially Owned
1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securi Acquired Disposed (Instr. 3,	d (A) of (D) 4 and (A) or	))	5. Amount of Securities Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
Common Stock	Â	Â	Â	Â	Â	Â	1,946	D	Â
Common Stock	Â	Â	Â	Â	Â	Â	29,555	I	Family Foundation
Common Stock	Â	Â	Â	Â	Â	Â	1,271,414	I	by Trust
Common Stock - Restricted	Â	Â	Â	Â	Â	Â	1,000	D	Â

#### Stock Units

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

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SEC 2270 (9-02)

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

		, 0,1	, , ,	,		Í				
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Num of Deriv Secu Acqu (A) of Disport of (D (Instrument))	vative rities nired or osed 0) r. 3,	6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amoun Underlying Securit (Instr. 3 and 4)	
					(A)	(D)	Date Exercisable	Expiration Date	Title	Amor or Numb
Non-Qualified Stock Option	\$ 13.44	Â	Â	Â	Â	Â	07/22/1999	07/22/2008	Common Stock	5,0
Non-Qualified Stock Option	\$ 17.59	Â	Â	Â	Â	Â	11/17/1998	11/17/2008	Common Stock	6,6
Non-Qualified Stock Option	\$ 26.25	Â	Â	Â	Â	Â	11/10/2000	11/10/2010	Common Stock	10,0
Non-Qualified Stock Option	\$ 29	Â	Â	Â	Â	Â	07/22/1998	07/22/2007	Common Stock	5,0
Non-Qualified Stock Option	\$ 37.05	Â	Â	Â	Â	Â	11/08/2002	11/08/2012	Common Stock	10,0
Non-Qualified Stock Option	\$ 40.24	Â	Â	Â	Â	Â	05/11/2005	05/11/2015	Common Stock	2,5
Non-Qualified Stock Option	\$ 40.68	Â	Â	Â	Â	Â	10/18/2004	10/18/2014	Common Stock	2,5
Non-Qualified Stock Option	\$ 44.76	Â	Â	Â	Â	Â	01/25/2005	01/25/2015	Common Stock	2,5
Non-Qualified Stock Option	\$ 46.28	Â	Â	Â	Â	Â	11/16/1999	11/16/2009	Common Stock	10,0
Non-Qualified Stock Option	\$ 47.23	Â	Â	Â	Â	Â	11/09/2001	11/09/2011	Common Stock	10,0
Non-Qualified Stock Option	\$ 47.86	Â	Â	Â	Â	Â	05/02/2006	05/02/2013	Common Stock	1,2
	\$ 49.99	Â	Â	Â	Â	Â	11/04/2005	11/04/2012		1,2

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Non-Qualified Stock Option									Common Stock	
Non-Qualified Stock Option	\$ 51.35	Â	Â	Â	Â	Â	08/02/2005	08/02/2015	Common Stock	2,5
Non-Qualified Stock Option	\$ 51.98	Â	Â	Â	Â	Â	01/31/2006	01/31/2013	Common Stock	1,2
Non-Qualified Stock Option	\$ 59.44	Â	Â	Â	Â	Â	11/05/2003	11/05/2013	Common Stock	10,0

# **Reporting Owners**

Reporting Owner Name / Address	Relationships								
1 8	Director	10% Owner	Officer	Other					
URBANEK LIDA 160 RIO ROBLES SAN JOSE, CA 95134	ÂX	Â	Â	Â					

# **Signatures**

Lida Urbanek 08/11/2006

\*\*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).

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### **Remarks:**

Voluntary filing to show all holdings as of 6/30/2006

Note: File three copies of this Form, one of which must be manually signed. If space provided 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.

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