

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>Peters William P</u> (Last) (First) (Middle) 4620 CREEKSTONE DRIVE, SUITE 200 (Street) DURHAM NC 27703 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>ADHEREX TECHNOLOGIES INC [AMEX:ADH]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <p style="text-align: right;">Chairman and CEO</p>
	3. Date of Earliest Transaction (Month/Day/Year) 04/30/2007	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

Table I - Non-Derivative Securities Acquired, 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)	3. Transaction Code (Instr. 8)		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)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock							165,982	D		

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)	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. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Stock Options (Right to buy)	\$0.28							02/28/2007	02/28/2014	Common Stock	400,000		400,000	D	
Stock Options (Right to buy)	\$0.88							12/14/2006	12/14/2012	Common Stock	30,000		30,000	D	
Stock Options (Right to buy)	\$1.1							10/14/2006	10/14/2012	Common Stock	150,000		150,000	D	
Stock Options (Right to buy)	\$1.2							04/05/2005	04/05/2012	Common Stock	633,601		633,601	D	
Stock Options (Right to buy)	\$1.65							02/19/2003	02/19/2010	Common Stock	750,000		750,000	D	
Stock Options (Right to buy)	\$1.95							12/17/2004	12/17/2011	Common Stock	32,000		32,000	D	
Stock Options (Right to buy)	\$2.25							12/30/2003	12/30/2010	Common Stock	770,217		770,217	D	
Stock Options (Right to buy)	\$2.9							05/21/2004	05/21/2011	Common Stock	234,000		234,000	D	
Stock Options (Right to buy)	\$0.63	04/30/2007		A		3,000,000		04/30/2007 ⁽¹⁾	04/30/2014	Common Stock	3,000,000	\$0	3,000,000	D	
Warrants (Right to buy)	\$0.4							02/21/2007	02/21/2010	Common Stock	25,000		25,000	D	
Warrants (Right to buy)	\$2.15							12/19/2003	12/19/2008	Common Stock	30,591		30,591	D	
Warrants (Right to buy)	\$2.75							06/23/2003	06/23/2007	Common Stock	15,566		15,566	D	

Explanation of Responses:

1. The options to which this note relates are subject to vesting in three (3) installments with one-third vesting immediately and the remaining shares vesting on the first and second anniversary of the Grant Date reported

above.

D. Scott Murray, Attorney-in-Fact

05/02/2007

** Signature of Reporting Person

Date

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

* 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).

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

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.