FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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| STATEMENT | OF CHANGES | IN BENEFICIAL | OWNERSHIP |
|-----------|-------------------|---------------|------------------|

| OMB APPR | OVAL |
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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 ar Senech | | of Reporting Person [*] | | | | | | | ker or Tradir NC. [M | | | | | heck | all applic Directo | r | Pers | on(s) to Issi 10% Ow Other (s | ner |
|---|--|--|---|------------|---------------------------------------|------|-----------|---|--|--------|---|--|---|---------------------------------|---|--|------|--|---------------------------------------|
| (Last) (First) (Middle) C/O METABOLIX, INC. 21 ERIE STREET | | | 3. Date of Earliest Transaction (Month/Day/Year) 09/18/2012 | | | | | | | | | X | Officer (give title below) VP, Bio-Based C | | | below) hemicals | | | |
| (Street) CAMBR (City) | | | 02139 (Zip) | | 4. If . | Amer | ndment, [| Oate o | of Original F | iled (| (Month/Da | ıy/Year) | | Indiv ne) X | Form fi | oint/Group I led by One led by More | Repo | orting Person | 1 |
| | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Date) | | | Execution Date | | r, Transaction Dis Code (Instr. 5) | | Disposed | urities Acquired (A) sed Of (D) (Instr. 3, | | d | 5. Amount of Securities Beneficially Owned Following Reported | | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | : Direct Indirect str. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | | | |
| | 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 Da if any (Month/Day/Y | Code (Inst | | | | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | | 7. Title and Amo of Securities Underlying Derivative Secu (Instr. 3 and 4) | | Di Si | Price of erivative ecurity nstr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction((Instr. 4) | y | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership (Instr. 4) |
| | | | | Co | ode \ | v | (A) | (D) | Date Exercisable | | xpiration ate | Title | Amount or Number of Shares | | | | | | |
| Stock Option | \$1.55 | 09/18/2012 | | I | A | | 60,000 | | (1) | 09 | 9/18/2022 | Common Stock | 60,000 | | \$0 | 60,000 | | D | |

Explanation of Responses:

1. This stock option will vest and become exercisable in 8 equal quarterly installments over a period of two years from the date of grant.

/s/ Sarah P. Cecil, attorney-in-

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** 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.