UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 8-K

Current Report Pursuant to Section 13 or 15(d)

Of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 1, 2008

WINLAND ELECTRONICS, INC.

(Exact name of registrant as specified in its charter)

Minnesota

(State or Other Jurisdiction of Incorporation)

1-15637 (Commission File Number) 41-0992135 (IRS Employer Identification No.)

1950 Excel Drive Mankato, Minnesota 56001 (Address of Principal Executive Offices) (Zip Code)

(507) 625-7231 (Registrant's telephone number, including area code)

Not Applicable (Former Name or Former Address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Disclosure of Results of Operations and Financial Condition.

On May 1, 2008, Winland Electronics, Inc. issued a press release announcing its 2008 first quarter financial results. The full text of the press release is set forth in Exhibit 99.1 attached hereto and is incorporated in this Report as if fully set forth herein.

Item 9.01 Financial Statements and Exhibits.

- (a) Financial statements: None.
- (b) Pro forma financial information: None.
- (c) Shell company transactions: None.
- (d) Exhibits:
- 99.1 Press release dated May 1, 2008 announcing Winland's financial results for the period ended March 31, 2008

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: May 2, 2008

WINLAND ELECTRONICS, INC.

By: /s/ Thomas J. de Petra

Thomas J. de Petra

President and Chief Executive Officer

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

EXHIBIT INDEX TO FORM 8-K

Date of Report: Commission File No.: May 2, 2008 1-15637

WINLAND ELECTRONICS, INC.

EXHIBIT ITEM NO.

Press release dated May 2, 2008 announcing Winland's financial results for the period ended March 31, 2008