



LIGHTWAVELOGIC™

For Immediate Release

Lightwave Logic, Inc. Prepares to Resume r33 Test Program

NEWARK, Del., April 2, 2009/ PRNewswire-FirstCall/-Lightwave Logic, Inc. (OTC Bulletin Board: LWLG- News; <http://lightwavelogic.com>), a technology company focused on the development of electro-optic polymer materials for applications in high speed fiber-optic telecommunications and optical computing, announced today it intends to start its next phase of testing for material performance (r33) Teng-Man testing protocol in order to re-confirm previous test results.

Lightwave is currently preparing samples to start our next phase of testing as we are finishing the Perkinamine material characterization. We anticipate having the test samples ready within the next week and we expect to measure the electro-optic properties of these materials (r33 testing) shortly thereafter.

Fred Goetz Jr., co-founder of Lightwave stated, “Extrapolations based on previous test results suggest that a reasonable density of Perkinamine should radically surpass existing telecom standards. We are both excited and relieved to finally have this opportunity to prove out our technology.”

Jim Marcelli, CEO added, “The r33 test results should be completed along with other material measurements and parameters within the next four to six weeks or sooner. The company’s material is complex and requires numerous measurements necessary for commercialization.”

About Light wave Logic, Inc.

Lightwave Logic, Inc. is a development stage company, moving toward prototype demonstration and commercialization of its high-activity, high-stability organic polymers for applications in electro-optical device markets. Electro-optical devices convert data from electric signals into optical signals for use in high-speed fiber-optic telecommunications systems and optical computers. Please visit the Company's website, www.lightwavelogic.com, for more information.

Safe Harbor Statement

The information posted in this release may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You can identify these statements by use of the words “may,” “will,” “should,” “plans,” “explores,” “expects,” “anticipates,” “continue,” “estimate,” “project,” “intend,” and similar expressions. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. These risks and uncertainties include, but are not limited to, general economic and business conditions, effects of continued geopolitical unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing various engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering

technological innovations, shortages in components, production delays due to performance quality issues with outsourced components, and various other factors beyond the Company's control.

For more information contact:

Jim Marcelli, CEO

302-356-2717

jmarcelli@lightwavelogic.com