Abstract Submitted
for the SHOCK17 Meeting of
The American Physical Society

Fireset and Cable Design for Support of Detonator Diagnostic Development CHRISTOPHER TRUJILLO, ELIZABETH FRANCOIS, JOHN GIBSON, RYLIE LODES, TEAGAN NAKAMOTO, DALTON SMITH, DOUGLAS TASKER, KRISTINA PARRACK, ZAKARY WILDE, Los Alamos National Laboratory — The performance of detonators can be affected by porosity effects in high explosive (HE) materials. In an effort to understand how these effects characterize performance, experiments are to be performed implementing new approaches with advanced diagnostics. This presentation will include the design choices and implementation of diagnostics within two primary components in the experimental test set up, the fire-set and cables. The fire-set contains a current viewing resistor (CVR) which characterizes the electrical performance of the detonator. The cable between the fire-set and detonator includes a Rogowski coil to measure the induced current passing to the detonator. We will present the experimental results and discuss the relevance of these data in the context of the overall experiments.

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Date submitted: 02 Feb 2017 Electronic form version 1.4