

Abstract Submitted
for the DPP16 Meeting of
The American Physical Society

Developing a Pre-Heat Platform for MagLIF with Z-Beamlet¹

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The majority of this effort has been done at the “Pecos” Target Area using Sandia’s Z-Beamlet laser to provide the pre-heat energy, just like for fully integrated MagLIF experiments. The nature and magnitude of Laser-Plasma-Instabilities during this process are particularly important, since they can lead to less energy in the fuel (backscatter processes) or to energy deposition in less desirable areas (filamentation/scatter). We present results for Stimulated Brillouin Backscatter and forward scatter, and show the effect of the laser pulse shape to laser-entrance-hole transmission and blast wave propagation in the fuel.

¹Sandia is a multi-program laboratory managed and operated by Sandia Corp., a wholly owned subsidiary of Lockheed Martin Corp., for the U.S. DOE’s Nat’l Nucl. Sec. Admin. under contract DE-AC04-94AL85000.

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Date submitted: 13 Jul 2016

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