Physics During the 1995 AGS-to-RHIC Transfer Line Commissioning^{*}, L. AHRENS, K. BROWN, T. CLIFFORD, R. CONNOLLY, G.F. DELL, D.P. DENG, L. HOFF, J. KEWISCH, W. MACKAY, G. MALDONADO, B. MARTIN, R. OLSEN, S. PEGGS, F. PILAT, T. SATOGATA, S. SATHE, D. SHEA, S. TANAKA, S. TEPIKIAN, P. THOMPSON, C.G. TRAHERN, D. TRBOJEVIC, C.N. TSOUPAS, J. WEI, P. ZHOU, BNL - This paper presents beam physics results from the fall 1995 AGSto-RHIC (ATR) transfer line commissioning run with completely ionized gold nuclei. We describe the instrumentation present, including position, loss, current, and transverse profile monitors. Measured and corrected beam trajectories demonstrate agreement with design optics to a few percent, including optical transfer functions and beamline dispersion. The digitized video profile monitors are used to measure extracted beam emittance using various methods.

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