Abstract Submitted for the DNP12 Meeting of The American Physical Society

Measurement of Wire Tension for the New SeaQuest Drift Chamber ANDREW BOLES, Abilene Christian University, E906/SEAQUEST COL-LABORATION — Fermilab E-906/SeaQuest is a fixed target experiment at Fermi National Accelerator Laboratory. The experiment uses a 120 GeV proton beam extracted from the Main Injector to measure the Drell-Yan di-muon cross sections for proton-proton and proton-deuterium collisions. One of the purposes of SeaQuest is to measure the anti-down to anti-up quark asymmetry in the nucleon sea. It will produce results up to a Bjorken x of 0.45, much larger than its predecessor, NuSea (Fermilab E866). To increase precision of these measurements, a new drift chamber is being built for the SeaQuest spectrometer. The new chamber will increase our ability to measure anti-down to anti-up quark asymmetry by 5-20%. The chamber is 3.4 meters long by 1.9 meters wide and has 19 planes of wires with 5,000 wires in total. In order for this chamber to work correctly, all of the wires must have tension values within a specified range. This poster will explain the method used to measure the tension and why having proper tension is necessary.

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Date submitted: 01 Aug 2012

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