



MT 26
International Conference
on Magnet Technology
Vancouver, Canada | 2019

Contribution ID: 813

Type: **Contributed Oral Presentation**

Thu-Mo-Or17-03: Test and commissioning of the 32 T superconducting magnet

Thursday 26 September 2019 11:30 (15 minutes)

After a successful first test of the 32 T superconducting magnet, it was inspected and prepared for commissioning. Here we report on the initial result of reaching 32 T, meeting the specifications and other pertinent observations from the first test. Following is a brief description of the facilities at its permanent location as a user magnet in the expanded NHMFL MilliKelvin building. The final configuration of the magnet, including instrumentation and protection systems, is described. Progress in characterizing and addressing the non-linearity in the field-current relation is presented. Lessons learned during the commissioning of this unique magnet conclude this work.

This work was performed at the National High Magnetic Field Laboratory, which is supported by National Science Foundation Cooperative Agreement No. DMR-1157490, DMR-1644779 and the State of Florida.

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Session Classification: Thu-Mo-Or17 - Very High Field Magnets