

# Fridge weekly report

12/07/2012-12/13/2012

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# Operational Overview

- 12/6 + 7

- ▶ Problem appeared with OVC pressure gauge suddenly jumping to  $3e-3$  mbar. Some leak checking of the PC and DU lines was done to confirm no mixture leak. [Jon may want to elaborate]
- ▶ Warmed up, pumped on OVC over the weekend, gauge still behaved strangely [ditto]

- 12/10

- ▶ Opened can to check on resistor-heater sample which seemed to have bad connection [Tommy+Ke]
- ▶ Pumped directly on the OVC gauge and found same strange gauge behavior [Yuan/Tommy/Ke] (Note leak checker gives "turbo-service warning")
- ▶ Cleaned the gauge, pumped on it again, it held  $2e-6$  mbar stably [Yuan]. Elog report : <http://moller.physics.berkeley.edu/elog/?p=541>

# Operational Overview

- 12/11

- ▶ Can remained open, waiting for fix of resistor-heater sample [Tommy]
- ▶ Cleaned OVC gauge again and pumped on it directly over night. It went down to  $1e-6$  mbar and held. Elog report: <http://moller.physics.berkeley.edu/bordum/read.php?3,2,6#msg-6>

- 12/12

- ▶ New resistor-heater sample prepared and installed on EP [Tommy +Raul].
- ▶ Cans replaced and OVC gauge replaced to OVC
- ▶ Began pump out and left it run over night
- ▶ Problem persists with resistor-heater readout. Problem seems likely to be line 6 of conn1

# Operational Overview

- 12/13
  - ▶ OVC pressure was  $\sim 5 \text{ e-4 mbar}$  in the morning
  - ▶ Performed leak check, it passed
  - ▶ Precool started about 11.30 am
  - ▶ Elog report: <http://moller.physics.berkeley.edu/bordum/read.php?4,4,4#msg-4>

# Experimental Overview

<b>What</b>	<b>Who</b>
NTD thermal coupling test	Ke
Thermal conductivity measurement	Alexey
Resistor characterization for heaters	Tommy

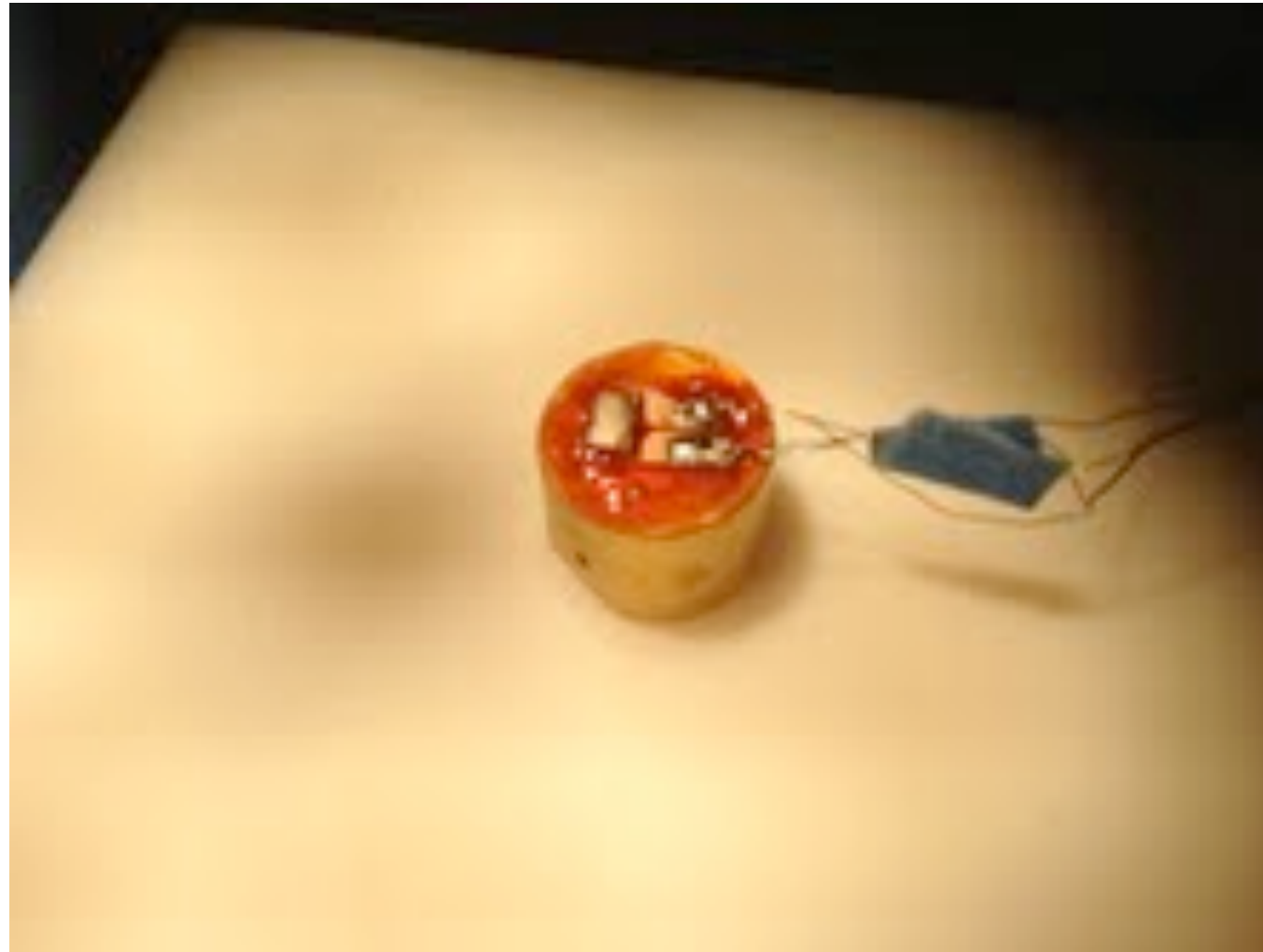
# Next week plans

- Assuming no problems continue with cool down
- Warm up Thursday or Friday 12/21 ?

# Summary

- Next cool down will be a test of OVC gauge, should we request a new one from Oxford anyway ?
- Looks like line 6 of conn1 is bad
- Leak checker warning -- I asked Joe he said it can be ignored, just keep an eye out for abnormal behavior

# Resistor-heater setup



50 kOhm NiCr resister on alumina substrate

Kypton PCB varnished to puck

Resister held with varnish on Kypton PCB, setup for 4-wire measurement

Mounted on EP, but found problem with channel 6 of conn I

Can do a two wire measurement