

Run 566 log

Flint #12:OK#1 = 2:1 by mass, mostly the same as 565 except 223 rather than 243 K. Prep notes on loose sheet. Best dry packing of these very sand grains was to porosity $\phi = 0.25$. Final sample composition $f=0.737$. **P readings are analog Heise unless otherwise specified.** Clocks synchronized.

1/7/09	0820	Loaded and pressurized yesterday p.m., vessel very tight at 60 MPa with only IW closing. Piston friction low, holds < 20 MPa (vs >50 MPa for run 565). Awaiting T restabilization after LN ran out a couple of hrs ago.
	1102	Unloaded s gauge at 60.0 MPa: -0.005128/-0.005157/ <u>5243</u> .
	1104	1st contact: <u>0.7465 V</u> .
	1115 (1a)	s setpt 24 mV (30 MPa); 60 MPa, 223 K.
	1340	Record interval to 60 s.
	1700	Put in 100:1 gearing.
1/8/09	1040	Stop. Put in 10:1 gearing. Unload.
	1041	Retouch 60 ± 5 s after unload: 1.0530 V. some self-loading.
	1046	Retouch 285 ± 5 s after unload: 1.0408 V. no self-loading.
	1051	Unloaded s gauge at 60.0 MPa: -0.005955/-0.006009/ <u>5982</u> .
	1107	Retouch 1613 ± 5 s after unload: 1.0245 V. no self-loading.
	1143	Retouch 3196 ± 5 s after unload: 1.0240 V. no self-loading.
	1144	Sample leaking; removed, rejacketed.
1/9/09	0900	Loaded and pressurized.
	1259	Unloaded s gauge at 60.0 MPa: -0.005548/-0.005606/ <u>5577</u> .
	1302	1st contact: <u>4.6963 V</u> . [long explanation from Hendrik] 1st contact at <u>4.4000 V</u> .
	1330 (1b)	s setpt 24 mV (30 MPa); 60 MPa, 223 K.
	1340	Put in 100:1 gearing.
	1616	Record interval to 100 s.
	1656	Bit of wild swing in edot. Accidentally set I to 300 rather than 30.
1/10/09	2140	Been chugging along more or less nominally. Notice Ts are a bit high, and V has climbed to 0.10 max over past hr, and HL put on new LN tank ~2.5 hrs ago. Tank is possibly underpowered, put low V0.02 max for a while to get more appropriate integrated value of e.
1/11/09	1136	Current reset now ~0.01, which looks consistent w/ integrated motor speed chart.
	1255	Stop. Put in 10:1 gearing. Unload.
	1257	Retouch 93 ± 5 s after unload: 4.8859 V. some self-loading.
	1300	Retouch 266 ± 5 s after unload: 4.8895 V. more self-loading.
	1305	Retouch 551 ± 5 s after unload: 4.9170 V. more self-loading.

1311 Unloaded s gauge at 60.25 MPa: -0.005781/-0.005777/5779.
 1316 Retouch 1223 $\pm$ 5 s after unload: 4.8826 V. more self-loading.
 1335 Unloaded s gauge at 60.0 MPa: -0.005749/-0.005821/5785.
 1339 Retouch 1223 $\pm$ 5 s after unload: 4.8808 V. more self-loading.
 1401 Retouch 3911 $\pm$ 5 s after unload: 4.8817 V. negl. self-loading.
 1414 (1c) s setpt 24 mV (30 MPa); 60 MPa, 223 K.
 1414 Record interval to 30 s. Eventually overloaded by $\sim$ 2 mV as HL
 learns to drive, relaxes down in $\sim$ 90 mins.
 1730 Put in 100:1 gearing.
 1747 Record interval to 60 s.

1/13/09 0615 A-ok. Up and down edot between V0.00 and V0.03 seems to be a
 fact of life. Lower total limit to 0.03; current reset bound between
 0.03 and 0.01.

1/14/09 0936 Stop. Put in 10:1 gearing. Unload.
 0950 Retouch 100 $\pm$ 5 s after unload: 4.9413 V. some self-loading.
 0953 Retouch 244 $\pm$ 5 s after unload: 4.9310 V. more self-loading.
 0957 Retouch 511 $\pm$ 5 s after unload: 4.9212 V. more self-loading.
 0959 Unloaded s gauge at 60.0 MPa: -0.005373/-0.005291/5332.
 1005 Retouch 944 $\pm$ 5 s after unload: 4.9210 V. more self-loading.
 1021 Retouch 1984 $\pm$ 5 s after unload: 4.9119 V. more self-loading.
 1055 Retouch 4044 $\pm$ 5 s after unload: 4.9054 V. more self-loading.
 1209 Retouch 8431 $\pm$ 5 s after unload: 4.9049 V. more self-loading.
 1252 Retouch 11031 $\pm$ 5 s after unload: 4.8991 V. no noticeable self-
 loading. Noise has vanished entirely from pist disp reading ever
 since motor stopped, btw.
 $\sim$ 1315 Out of vessel, into gas over LN in storage deward for $\sim$ 5 min, then
 all the way in (LN is pretty deep).

1/7/09 1132 hrs 0.017480"/0.007781 (1a) #174
 1/7/09 1234 hrs 0.027320"/0.012161 #522
 1/7/09 1453 hrs 0.037985"/0.016908 #1342
 1/7/09 1707 hrs 0.043331"/0.019288 #2142
 1/7/09 1848 hrs 0.046640"/0.020761 #2775
 1/8/08 0626 hrs 0.060279"/0.026832 #7165
 1/8/08 1013 hrs 0.062576"/0.027855 #8565
 1/9/08 1348 hrs 0.066663"/0.029674 (1b) #170
 1/9/09 1617 hrs 0.072998"/0.032494 #1007
 1/9/09 2122 hrs 0.078252"/0.035072 #2858
 1/9/09 2251 hrs 0.079550"/0.035411 #3478
 1/10/09 0649 hrs 0.083398"/0.037124 #6482
 1/10/09 1159 hrs 0.087043"/0.038746 #8398....
 1/10/09 1848 hrs 0.086495"/0.038502 #10914
 1/10/09 2149 hrs 0.086795"/0.038636 #12047
 1/10/09 2341 hrs 0.087540"/0.038967 #12729

1/11/09 1138 hrs 0.088335"/0.039321 #17228
1/11/09 1735 hrs 0.091573"/0.040763 (1c) #1149
1/11/09 1920 hrs 0.097122"/0.043232 #1798 suspect noise
1/11/09 2108 hrs 0.092949"/0.041373 #2472
1/12/09 0644 hrs 0.093846"/0.041774 #6032
1/12/09 2338 hrs 0.098681"/0.043926 #12364
1/13/09 0612 hrs 0.095874"/0.042677 #14830
1/13/09 1717 hrs 0.097363"/0.043340 #18946
1/14/09 0625 hrs 0.097648"/0.043467 #23928