

side	meas#	kG		
right-top	1	1.9781		
right-bottom	2	-1.9768		
left-top	3	-1.9706		
left-bottom	4	1.9855		
left-bottom	5	1.9865		
left-top	6	-1.9715		
right-bottom	7	-1.9787		
right-top	8	1.9765		
Comparison	d[Field](%)	<Field>	Entry#	Note
C-1_8	-0.0808857	1.9773	A1	right-top
C-2_7	0.09611493	-1.97775	A2	right-bot
C-3_6	0.04567137	-1.97105	A3	left-top
C_4-5	0.05036515	1.986	A4	left-bot
A1_A2	0.02275831			right-t_b
A3_A4	0.75847898			left-t_b
A1_A3	-0.31608759			r_l-top
A2_A4	0.41714069			r_l-bot
A2_E12	-0.12624669			
NOTES:				
(*) Measurements taken Jan 27, 2010				
(*) Power supply current set to 300 A (readback not recorded) and kept constant while probe location was changed				
(*) Lake Shore probe, type transverse, mounted flat on 4 (W) X 16 (L) X 0.5 (T) in ³ polystyrene. Active area of Hall probe located 12.25 in from alignment edge S				
(*) Septum orientation: Septum-left connects to left-HRS while septum-right connects to right-HRS				
(*) Probe inserted from downstream side (HRS side) and polystyrene edge S aligned with edge of pole in the upstream side (probe ends ~ 12.25 inches from pole start) Probe centered horizontally in gap (gap is ~12 inches wide)				
(*) Probe held by hand in position against magnet pole.				

Notes/Conclusions:

- (*) Jan 27, 2010 /300 A / right-bottom & Jan 28, 2010/ 300 A/ right-bottom agree to ~ 0.1 % (A2_E12, page 1)
- (*) 0.75% between left top-bottom (A3_A4, page 1) of Jan 27, 2010 @ 300 A remains in the Jan 28, 2010 data set but somewhat smaller: ~ 0.5%, see Page 4, E1_E5 --> E4_E8. It does not change with field value.
- (*) 0.4% between right & left bottom pole measurements of Jan 27, 2010 (A2_A4, page 1) become 0.3% for the Jan 28, 2010 data set (page 4, E9_E1 --> E13_E4)

Some of these discrepancies may be real but like we are also at the limit of accuracy for the method used

side	meas#	Set I (A)	Meas. I (A)	Field (kG)
left-bottom	1	800	796.132	5.2895
left-bottom	2	600	597.091	3.971
left-bottom	3	400	398.034	2.6475
left-bottom	4	200	198.977	1.3274
left-bottom	5	0	0	0.005
left-bottom	6	800	796.132	5.288
left-bottom	7	600	597.075	3.9695
left-bottom	8	400	398.034	2.6465
left-bottom	9	200	198.977	1.3268
left-bottom	10	0	0	0.004
left-bottom	11	800	796.132	5.2865
Move probe cable & gaussmeter searching for change in field reading - none seen				
left-top	12	800	796.132	-5.2655
left-top	13	600	597.075	-3.9505
left-top	14	400	398.018	-2.6345
left-top	15	200	198.977	-1.3179
left-top	16	0	0	-0.001
left-top	17	800	796.132	-5.265
left-top	18	600	597.075	-3.95
left-top	19	400	398.018	-2.6335
left-top	20	200	198.977	-1.31795
left-top	21	0	0	-0.001
left-top	22	800	796.132	-5.2645
Move probe cable & gaussmeter searching for change in field reading - none seen				
right-bottom	23	800	796.132	-5.2745
right-bottom	24	600	597.075	-3.9575
right-bottom	25	400	398.018	-2.639
right-bottom	26	300	298.505	-1.9803
right-bottom	27	200	198.977	-1.321
right-bottom	28	0	0	-0.001

side	meas#	Set I (A)	Meas I (A)	Field (kG)	
right-bottom	29	800	796.132	-5.274	
right-bottom	30	600	597.075	-3.9575	
right-bottom	31	400	398.018	-2.639	
right-bottom	32	300	298.505	-1.9802	
right-bottom	33	200	198.977	-1.32105	
right-bottom	34	0	0	-0.001	
Comparison	d[Meas-I](%)	d[Field](%)	<Meas I>	<Field>	Entry#
C-1_6	0	-0.02835807	796.132	5.28875	E1 (left-bot)
C-2_7	-0.00267966	-0.03777386	597.083	3.97025	E2 (left-bot)
C-3_8	0	-0.03777148	398.034	2.647	E3 (left-bot)
C-4_9	0	-0.04520115	198.977	1.3271	E4 (left-bot)
C-12_17	0	-0.00949577	796.132	-5.26525	E5 (left-top)
C-13_18	0	-0.01265663	597.075	-3.95025	E6 (left-top)
C-14_19	0	-0.03795787	398.018	-2.634	E7 (left-top)
C-15_20	0	0.00379391	198.977	-1.317925	E8 (left-top)
C-23_29	0	-0.00947957	796.132	-5.27425	E9 (r-bot)
C-24_30	0	0	597.075	-3.9575	E10 (r-bot)
C-25_31	0	0	398.018	-2.639	E11 (r-bot)
C-26_32	0	-0.00504974	298.505	-1.98025	E12 (r-bot)
C_27_33	0	0.00378501	198.977	-1.321025	E13 (r-bot)
E1_E5	0	-0.4443394			left-b_t
E2_E6	-0.00133985	-0.50374662			left-b_t
E3_E7	-0.00401976	-0.49112202			left-b_t
E4_E8	0	-0.69135709			left-b_t
E5_E9	0	0.17093205			rb_lt
E6_E10	0	0.18353269			rb_lt
E7_E11	0	0.18982536			rb_lt
E8_E13	0	0.23521824			rb_lt
E9_E1	0	0.2749206			r_l-bot
E10_E2	0.00133987	0.32217309			r_l-bot
E11_E3	0.00401992	0.30314513			r_l-bot
E13_E4	0	0.45987018			r_l-bot
NOTES:					
(*) Measurements taken Jan 28, 2010					
(*) Polystyrene with Hall probe was held in place on the septum poles with tape					
(*) Power supply cycle: 0 -> 800 A -> measurements with decreasing I -> 0, repeat					