Jefferson Lab Alignment Group

Data Transmittal

TO: O. Pastor | **DATE:** 09 Jun 2014

FROM: CG | **Checked:** | **# :** B1569

DETAILS: M:\align\DATA\Inspection\HallB\CoilCase\140528A

Below are the results of the Coil Case # 8 inspection. Where possible the naming convention follows the drawing feature callouts. Similarly to the vacuum jacket, the coordinate system was established using a best fit transformation to the hole centers on sheet 5 of drawing number B00000-04-01-1101. Values are in mm and degrees.

DWG# B00000-04-01-1101 SHEET 5

IDEAL COORD					MEASURED				DELTA		
NAME	X	Y	Dia		X	Y	Dia		X	Y	Dia
2	852.90	612.74	139.7		852.92	612.72	139.73		0.02	-0.02	0.03
3	1236.62	580.98	139.7		1236.67	580.93	139.67		0.05	-0.05	-0.03
4	1614.45	581.09	139.7		1614.53	580.95	139.71		0.08	-0.14	0.01
5	1958.49	632.09	139.7		1958.55	632.04	139.69		0.06	-0.05	-0.01
6	1393.68	909.67	139.7		1393.77	909.59	139.65		0.09	-0.08	-0.05
7	1846.49	995.35	139.7		1846.51	995.28	139.73		0.02	-0.07	0.03
8	700.09	970.48	139.7		700.07	970.45	139.68		-0.02	-0.03	-0.02
9	1033.98	1105.39	139.7		1034.01	1105.32	139.68		0.03	-0.07	-0.02
10	1358.64	1236.56	139.7		1358.66	1236.49	139.67		0.02	-0.07	-0.03
11	1696.71	1373.16	139.7		1696.72	1373.10	139.65		0.01	-0.06	-0.05
12	534.33	1375.79	139.7		534.24	1375.77	139.71		-0.09	-0.02	0.01
13	871.53	1512.01	139.7		871.54	1512.00	139.67		0.01	-0.01	-0.03
14	1198.40	1644.08	139.7		1198.41	1644.03	139.69		0.01	-0.05	-0.01
15	1533.60	1779.52	139.7		1533.63	1779.49	139.70		0.03	-0.03	0.00
16	370.37	1781.77	139.7		370.35	1781.77	139.71		-0.02	0.00	0.01
17	705.16	1917.03	139.7		705.17	1917.01	139.67		0.01	-0.02	-0.03
18	1054.43	2058.13	139.7		1054.47	2058.10	139.71		0.04	-0.03	0.01
19	1368.79	2185.13	139.7		1368.88	2185.11	139.69		0.09	-0.02	-0.01
20	208.18	2188.47	139.7		208.16	2188.47	139.67		-0.02	0.00	-0.03
21	551.41	2327.15	139.7		551.44	2327.13	139.71		0.03	-0.02	0.01
22	869.58	2455.71	139.7		869.60	2455.68	139.73		0.02	-0.03	0.03
23	1202.14	2590.08	139.7		1202.14	2590.05	139.68		0.00	-0.03	-0.02
24b	93.31	2577.92	139.7		93.26	2577.94	139.68		-0.05	0.02	-0.02
24s	159.51	2503.82	28.6		159.55	2504.34	28.65		0.04	0.52	0.05
25	388.54	2716.32	139.7		388.55	2716.36	139.71		0.01	0.04	0.01
26	712.99	2847.40	139.7		713.02	2847.42	139.69		0.03	0.02	-0.01
27	1017.97	2948.60	139.7		1018.00	2948.66	139.74		0.03	0.06	0.04
28	-138.53	3085.66	139.7		-138.62	3085.65	139.70		-0.09	-0.01	0.00
29	184.18	3221.98	139.7		184.09	3222.08	139.70		-0.09	0.10	0.00
30	508.67	3353.08	139.7		508.56	3353.08	139.72		-0.11	0.00	0.02
31	835.78	3478.18	139.7		835.64	3478.19	139.70		-0.14	0.01	0.00
32	1226.42	3452.99	139.7		1226.36	3452.95	139.75		-0.06	-0.04	0.05
33	297.50	2416.69	57.2		297.46	2416.88	57.30		-0.04	0.19	0.10

SHEET 6

IDEAL COORD					MEASURED				DELTA	
NAME	X	Y			X	Y			X	Y
H2	520.70	244.51			521.79	245.05			1.09	0.54
H3	2409.42	388.02			2408.81	387.51			-0.61	-0.51
H4	-469.29	2684.95			-469.93	2685.67			-0.64	0.72
H5	1268.48	3606.62			1267.95	3606.34			-0.53	-0.28
H8	1371.10	743.04			1371.04	742.97			-0.06	-0.07
H9	1050.41	1536.76			1050.34	1536.78			-0.07	0.02
H10	628.91	2579.97			628.97	2580.12			0.06	0.15
H11	799.04	773.49			799.00	773.44			-0.04	-0.05
H12	1911.98	789.81			1912.03	789.80			0.05	-0.01
H13	780.01	820.59			779.93	820.47			-0.08	-0.12
H14	1892.95	836.91			1893.03	836.98			0.08	0.07
H15	603.55	1612.33			603.54	1612.37			-0.01	0.04
H16	1319.33	1901.54			1319.42	1901.54			0.09	0.00
H17	584.52	1659.44			584.51	1659.40			-0.01	-0.04
H18	1300.30	1948.64			1300.40	1948.77			0.10	0.13
H19	158.42	2358.95			158.38	2359.02			-0.04	0.07
H20	1120.84	2747.80			1120.81	2747.90			-0.03	0.10
H21	139.40	2406.05			139.27	2406.04			-0.13	-0.01
H22	1101.81	2794.90			1101.75	2795.04			-0.06	0.14
H23	904.30	3756.00			904.14	3756.23			-0.16	0.23
H24	955.10	3756.00			954.95	3756.16			-0.15	0.16
H25	1445.28	1508.69			1445.43	1509.10			0.15	0.41
H26	459.18	2050.83			459.63	2050.80			0.45	-0.03
H27	464.24	1549.33			464.15	1549.35			-0.09	0.02
H28	1463.17	1952.91			1463.22	1953.01			0.05	0.10
H29	440.46	1608.21			440.41	1608.23			-0.05	0.02
H30	1439.26	2011.74			1439.29	2011.77			0.03	0.03
H31	-460.37	3155.60			-460.21	3155.51			0.16	-0.09
H32	931.27	4161.19			931.33	4161.38			0.06	0.19
H40	-563.87	2970.80			-563.96	2970.90			-0.09	0.10
H41	-563.87	3063.20			-563.71	3063.56			0.16	0.36
H42	-563.87	3155.60			-564.04	3155.58			-0.17	-0.02
H44	-356.87	3155.60			-357.07	3155.69			-0.20	0.09
H45	-356.87	3063.20			-356.76	3062.95			0.11	-0.25
H46	-356.87	2970.80			-357.07	2970.89			-0.20	0.09
H51	827.77	3976.39			827.63	3976.51			-0.14	0.12
H52	827.77	4068.79			827.68	4069.27			-0.09	0.48
H53	827.77	4161.19			827.60	4161.41			-0.17	0.22
H55	1034.77	4161.19			1034.73	4161.47			-0.04	0.28
H56	1034.77	4068.79			1034.67	4068.76			-0.10	-0.03
H57	1034.77	3976.39			1034.76	3976.57			-0.01	0.18

**See diagram for additional point names.

Corner Points

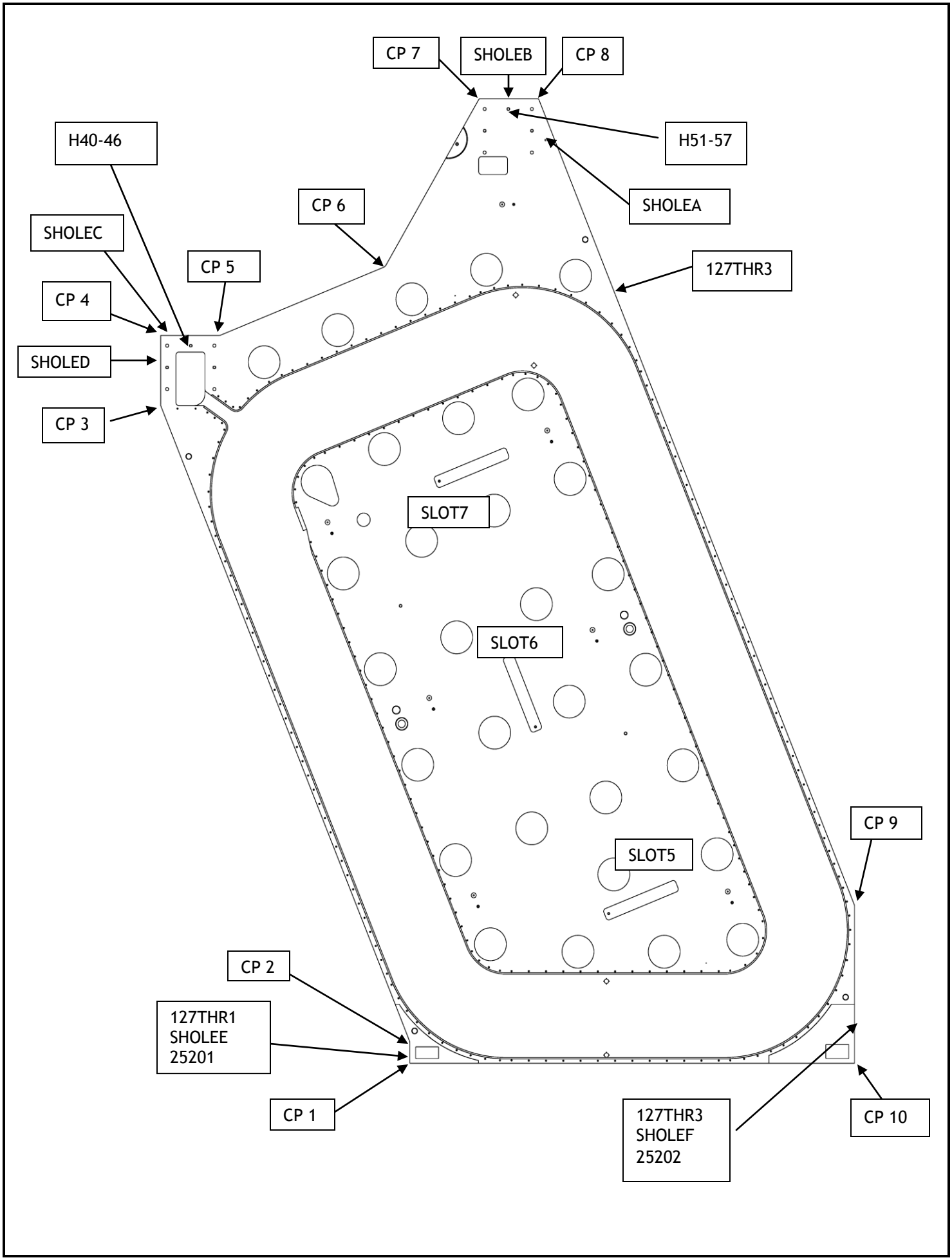
IDEAL COORD					MEASURED				DELTA	
NAME	X	Y			X	Y			X	Y
CP1	500.00	108.00			499.91	107.93			-0.09	-0.07
CP2	500.00	198.00			499.91	197.76			-0.09	-0.24
CP3	-592.00	2900.70			-592.03	2900.60			-0.02	-0.10
CP4	-592.00	3199.30			-592.11	3199.47			-0.11	0.17
CP5	-332.50	3199.30			-332.65	3199.43			-0.15	0.13
CP6	391.60	3491.80			391.49	3491.98			-0.11	0.18
CP7	803.30	4204.90			803.09	4205.10			-0.21	0.20
CP8	1063.70	4204.90			1063.60	4205.06			-0.10	0.16
CP9	2448.10	778.50			2448.02	779.21			-0.08	0.71
CP10	2448.10	108.00			2448.14	107.91			0.04	-0.09

Slots

	Ideal				Measured				Delta	
	DEPTH	ANGLE			DEPTH	ANGLE			DEPTH	ANGLE
SLOT 5	6.40	22.00			6.41	22.02			0.01	0.02
SLOT 6	6.40	68.00			6.36	68.00			-0.04	0.00
SLOT 7	6.40	22.00			6.39	22.04			-0.01	0.04

Side Features

IDEAL COORD OFFSET					MEASURED				DELTA	
NAME	X	Y			X	Y			X	Y
127THR1	462.56	290.68			462.24	291.07			-0.32	0.39
127THR2	2448.10	450.90			2448.04	450.89			-0.06	-0.01
127THR3	1402.23	3367.10			1402.13	3366.97			-0.10	-0.13
2520TH1	500.00	120.70			499.91	120.72			-0.09	0.02
2520TH2	2448.10	120.70			2448.14	120.86			0.04	0.16
SHOLEA	1094.52	4029.49			1094.07	4029.75			-0.45	0.26
SHOLEB	878.30	4204.90			877.94	4205.09			-0.36	0.19
SHOLEC	-506.90	3199.30			-507.30	3199.46			-0.40	0.16
SHOLED	-592.00	3125.10			-592.09	3125.27			-0.09	0.17
SHOLEE	500.00	171.50			499.91	171.60			-0.09	0.10
SHOLEF	2448.10	260.40			2448.11	260.41			0.01	0.01


CP 7
SHOLEB
CP 8
H51-57
H40-46
SHOLEA
CP 6
SHOLEC
CP 5
127THR3
CP 4
SHOLED
CP 3
SLOT7
SLOT6
CP 9
SLOT5
CP 2
127THR1
SHOLEE
25201
CP 1
127THR3
SHOLEF
25202
CP 10