A_y (E05-015) Shift Check List

Date: 17 MAY

	Owl	Day	Swing
Time (hh/mm,24:00)	07:36	13:06	21:17
Your Name	V Sulkosky/D. Parno	P. King	J. LeRose
Visual Hall Inspection	✓		✓
Beam Energy (MeV)	2427.26	2425.5	2425.488
Beam Current (uA)	10.23	10.2	10.3
# beam trips last hour	12	8	6
SPOT++ size X/Y (mm)	4x4	4x4	4x4
SPOT++ saved in Halog ?	✓	✓	✓
Beam Position at 1H04A X/Y (mm)	-0.5/2.1	-0.50 / 2.10	-0.497 / 2.007
Beam Position at 1H04B X/Y (mm)	-0.5/1.975	-0.50 / 2.00	-0.505 / 1.999
Hall A beam position feedback	ON	ON	ON
Alarm Handler running ?	✓	✓	✓
Saved Hall A tools screen into Halog ?	✓	✓	✓
Wien angle	66.920	66.92	66.92
Beam half-wave plate IN/OUT ?	IN	IN	✓
Most recent Hall A Moller date/result	5/14 83.4%		5/14 83.4%
Target position	^{3}He	^{3}He	^{3}He
Pol. ^{3}He optical pumping direction	longitudinal	Long.	Long
Pumping laser on ?	yes	yes	yes
Temperature in laser optics enclosure			
Pol. ^{3}He oven heater ON ?	yes	yes	yes
^{3}He cell oven temperature (RTDs)	240/229.8	229/230	230/230
^{3}He cell temperature (RTDs)	78/48/35/43/53	80/48/38/40/55	81/49/42/44/56
^{3}He cell polarization, recent NMR	63.7%	62.8%	61.9%
^{3}He cell polarization, recent EPR	?		
Spin-flip ON ?	NO	NO	
Target cooling jet flow	42.6	41.2	0
Ref. cell gas type	D_2	D_2	?
Ref. cell low pressure gauge (left)	1	1	1
Ref. cell high pressure gauge (right)	095	095	95
Ref. cell tempreture (RTDs)	40/40	40/40	42/41
Left Arm Angle	14.5°	14.5	14.5
Left Arm Momentum (GeV/c)	2.277	2.277	2.277
Left Arm NMR locked ?	✓	✓	✓
Left Arm Helium flow OK ?	✓	✓	✓
Left Arm liquid level OK ?	✓	✓	
Left Arm Quad #1 (A)	1713.2	1713.2	1713.2
Left Arm Quad #2 (A)	980.46	980.4	980.4
Left Arm Dipole (A)	776.73	776.7	776.70
Left Arm Quad #3 (A)	906.45	906.4	906.4

Page-2: Shift Check List

Date: 17 MAY

	Owl	Day	Swing
Right Arm Angle	16°	16.0	16°
Right Arm Momentum (GeV/c)	2.2248	2.2248	2.2248
Right Arm NMR locked ?	✓	✓	✓
Right Arm Helium flow OK ?	✓	✓	✓
Right Arm liquid level OK ?	✓	✓	✓
Right Arm Quad #1 (A)	1688.9 (set)	0 / P_0 = 2.22375	0 / P_0 = 2.22481 β = -0.0
Right Arm Quad #2 (A)	957.5	957.48	957.5
Right Arm Dipole (A)	777.5	777.5	777.45
Right Arm Quad #3 (A)	866.3	885.3	885.3
Argon pressure (PSI)	2018.3	1927	1854
Ethane pressure (PSI)	517.4	452	420
CO2 pressure (PSI)	262.7	220	148
Left VDC gas flow (top/bottom)	5.0/5.9	5.24 / 5.87	5.19 / 5.87
Left Cerenkov pressure (PSI)	?		
Left VDC HV on (top/bottom) ?	3.99/4.00	3.993 / 4.000	3.993 / 3.999
Left VDC threshold on (top/bot.) ?	3.90/3.96	3.89 / 3.96	4.00 / 4.010
Left S1/S2 HV on ?	✓	✓	✓
Left Cerenkov HV on ?	✓	✓	✓
Right VDC gas flow (top/bottom)	6.15 ~~4.6 4.4 0578~~	6.10 / 5.75	6.12 / 5.75
Right Cerenkov pressure (PSI)	?		
Right VDC HV on (top/bottom) ?	4.0/4.0	4.0 / 4.01	4.0 / 4.01
Right VDC threshold on (top/bot.) ?	3.87/3.84	3.87 / 3.84	3.87/3.84
Right S1/S2 HV on ?	✓	✓	✓
Right Cerenkov HV on ?	✓	✓	✓
Happex-run started/run-# ?	yes/31385	11:50 / 31386	20:32 31388
Last-Left-HRS run number	2348	2362	2361
Left-HRS-DAQ deadtime	11	12	11
Left-HRS-DAQ CODA rate	3.5 KHz	3.1 kHz	3.5K
Left-HRS-prescale PS3/PS4	3/4	3/4	3/4
Left-HRS-rates T3/T4	1.8×10^3/1.8×10^2	500 Hz / 157 Hz	10KHz / 190
Last Left-HRS run replayed	Yes	Yes	✓
Left VDC eff./wiremap OK ?	Yes	Yes	✓
Last-Right-HRS run number	21253	21268	21296
Right-DAQ deadtime	17	17	17
Right-DAQ CODA rate	2.6 KHz	~~2.8 kHz~~ 2 kHz	2.7 KHz
Right-prescale PS1/PS2	1/1	1/1	1/1
Right-rates T1/T2	244/29	178 Hz / 48 Hz	2KHz / 7 Hz
Last Right-HRS run replayed	yes	Yes	✓
Right VDC eff./wiremap OK ?	yes	Yes	✓

low current beam

A_x A_z E05-102

~~A_y (E05-015)~~ **Shift Check List**

Date: 18 May 2009.

	Owl	Day	Swing
Time (hh/mm,24:00)	02:43	15:37	21:17
Your Name	A. Tobias	J.P. Chen	M. MIHOVILOVIC
Visual Hall Inspection	YES. RAMP DOOR OPEN	✓	✓
Beam Energy (MeV)	2427.20	2425.49	2425.4834
Beam Current (uA)	10 mA	10	10.4 μA
# beam trips last hour	7	10	9
SPOT++ size X/Y (mm)	4x4mm	4x4	4x4 mm
SPOT++ saved in Halog ?	YES.	Yes	Yes
Beam Position at 1H04A X/Y (mm)	-0.492/2.119	-0493/2.112	-0.495/2.102
Beam Position at 1H04B X/Y (mm)	-0.510/1.998	-0.495/2.001	-0.504/1.992
Hall A beam position feedback	ON.	ON	ON
Alarm Handler running ?	YES.	Yes	Yes
Saved Hall A tools screen into Halog ?	YES.	Yes	Yes
Wien angle	66.9203°	66.92°	66.920
Beam half-wave plate (IN)/OUT ?	IN.	OUT	OUT
Most recent Hall A Moller date/result			/
Target position	Pol. ^{3}He	Pol. ^{3}He	^{3}He
Pol. ^{3}He optical pumping direction	LONG.	L	LONG.
Pumping laser on ?	YES.	Yes	Yes
Temperature in laser optics enclosure			
Pol. ^{3}He oven heater ON ?	yes	Yes	Yes
^{3}He cell oven temperature (RTDs)	229.5/250/250 R106 R107	230/226/250	230/226/251
^{3}He cell temperature (RTDs)	80/50/40/40/60	82/50/43/43/57	85/50/43/47/57
^{3}He cell polarization, recent NMR	61.8%	63.3%	62.6 %
^{3}He cell polarization, recent EPR	—	—	—
Spin-flip ON ?	No	NO	NO
Target cooling jet flow	40.9	40.9	40.9
Ref. cell gas type	D_2	N_2	N_2
Ref. cell low pressure gauge (left)	1	+	1
Ref. cell high pressure gauge (right)	95	35 psig	35 Psi
Ref. cell tempreture (RTDs)	40/40	-/40/40	+/40/40
Left Arm Angle	14.5°	14.5°	14.5°
Left Arm Momentum (GeV/c)	2.27700	2.277	2.27700
Left Arm NMR locked ?	YES.	Yes	Yes
Left Arm Helium flow OK ?	✓	✓	Yes
Left Arm liquid level OK ?	✓	✓	Yes
Left Arm Quad #1 (A)	1713.230 A	1713.176	1713.230
Left Arm Quad #2 (A)	980.37 A	980.37	980.37
Left Arm Dipole (A)	776.73 A	776.73	776.73
Left Arm Quad #3 (A)	906.43 A	906.43	906.43

Page-2: Shift Check List

Date: 18 May 2009

	Owl	Day	Swing
Right Arm Angle	15.998°	15.998	16.0
Right Arm Momentum (GeV/c)	2.2248	2.2248	2.2248
Right Arm NMR locked ?	YES.	Yes	Yes
Right Arm Helium flow OK ?	✓ D=69.9%	✓	Yes
Right Arm liquid level OK ?	✓ ↓ *	✓	Yes
SET A Right Arm Quad #1 (A)	Readback not working → 0.00A	B=-0.04195T	B=-0.04197T
Right Arm Quad #2 (A)	957.48A	957.48	957.48
Right Arm Dipole (A)	777.49A	777.49	777.49
Right Arm Quad #3 (A)	885.26A	885.26	885.26
Argon pressure (PSI)	1815.527	1761	1718.141
Ethane pressure (PSI)	410.156	455	428.613
CO2 pressure (PSI)	100.195	888	660.988
Left VDC gas flow (top/bottom)	5.15/5.87	5.4/5.8	5.04/5.86
Left Cerenkov pressure (PSI)			
Left VDC HV on (top/bottom) ?	3.998/3.999	4/4 KV	3.995/4.001
Left VDC threshold on (top/bot.) ?	3.90/3.97	3.9/3.97	3.90/3.97
Left S1/S2 HV on ?	✓	✓	✓
Left Cerenkov HV on ?	✓	✓	✓
Right VDC gas flow (top/bottom)	6.310/6.013	6.3/5.98	6.266/5.943
Right Cerenkov pressure (PSI)			
Right VDC HV on (top/bottom) ?	3.999/4.013	-4000	-4000.7
Right VDC threshold on (top/bot.) ?	3.87/3.84	3.87/3.84	3.87/3.84
Right S1/S2 HV on ?	✓	✓	✓
Right Cerenkov HV on ?		✓	
Happex-run started/run-# ?	00:25/31389	31392	22:18/31394
Last-Left-HRS run number	2402	2424	2438
Left-HRS-DAQ deadtime	11%	12%	6%
Left-HRS-DAQ CODA rate	3.1/3.5 kHz	3.5 KHz	2.7kHz
Left-HRS-prescale PS3/PS4	3/4	3/4	5/4
Left-HRS-rates T3/T4	10kHz/200Hz	10K/200	320Hz/268Hz
Last Left-HRS run replayed	2401	2424	24380
Left VDC eff./wiremap OK ?	YES.	Yes	✓
Last-Right-HRS run number	21308	21330	21343
Right-DAQ deadtime	17%	17%	16%
Right-DAQ CODA rate	2.5/2.8kHz	2.8 KHz	2.4kHz
Right-prescale PS1/PS2	1/1	1/1	1/1
Right-rates T1/T2	3.3kHz/81Hz	33K/99	3.2kHz/80Hz
Last Right-HRS run replayed	21308	21330	21343
Right VDC eff./wiremap OK ?	YES.	YES	Yes.

A_y (E05-015) Shift Check List

Date: 19 May 2009

	Owl	Day	Swing
Time (hh/mm,24:00)	04:27		
Your Name	Al Tobias		
Visual Hall Inspection (camp overhead door open)	→ YES		
Beam Energy (MeV)	2427.20		
Beam Current (uA)	10uA		
# beam trips last hour	5		
SPOT++ size X/Y (mm)	4x4 mm		
SPOT++ saved in Halog ?	YES.		
Beam Position at 1H04A X/Y (mm)	-0.489/2.092		
Beam Position at 1H04B X/Y (mm)	-0.489/2.007		
Hall A beam position feedback	ON		
Alarm Handler running ?	YES		
Saved Hall A tools screen into Halog ?	YES		
Wien angle	66.92°		
Beam half-wave plate IN/OUT ?	OUT		
Most recent Hall A Moller date/result			
Target position	Pol. ^{3}He		
Pol. ^{3}He optical pumping direction	LONG.		
Pumping laser on ?	✓		
Temperature in laser optics enclosure	✓		
Pol. ^{3}He oven heater ON ?	✓		
^{3}He cell oven temperature (RTDs)	230°C/226°/250°		
^{3}He cell temperature (RTDs)	80/50/40/40/60		
^{3}He cell polarization, recent NMR	61.5%		
^{3}He cell polarization, recent EPR	—		
Spin-flip ON ?	NO.		
Target cooling jet flow (274477)	40.9		
Ref. cell gas type (HALOG 274535)	N_2		
Ref. cell low pressure gauge (left)	1		
Ref. cell high pressure gauge (right)	35		
Ref. cell tempreture (RTDs)	0/40/40		
Left Arm Angle	14.5°		
Left Arm Momentum (GeV/c)	2.27700		
Left Arm NMR locked ?	✓		
Left Arm Helium flow OK ?	✓		
Left Arm liquid level OK ?	✓		
Left Arm Quad #1 (A)	1713.176		
Left Arm Quad #2 (A)	980.36		
Left Arm Dipole (A)	776.72		
Left Arm Quad #3 (A)	906.42		

Page-2: Shift Check List

Date: 19 May 2009

	Owl	Day	Swing
Right Arm Angle	16°		
Right Arm Momentum (GeV/c)	2.22480		
Right Arm NMR locked ?	✓		
Right Arm Helium flow OK ?	✓		
Right Arm liquid level OK ? HALOG→	✓ Dipole ?		
Right Arm Quad #1 (A) Readback	broke 0.000		
Right Arm Quad #2 (A)	957.47		
Right Arm Dipole (A)	777.49		
Right Arm Quad #3 (A)	885.25		
Argon pressure (PSI)	1648.242		
Ethane pressure (PSI)	395.215		
CO2 pressure (PSI)	609.668		
Left VDC gas flow (top/bottom)	5.07/5.86		
Left Cerenkov pressure (PSI)	3.990/3.998k		
Left VDC HV on (top/bottom) ?	4.004/4.014k		
Left VDC threshold on (top/bot.) ?	3.90/3.96		
Left S1/S2 HV on ?	✓		
Left Cerenkov HV on ?	✓		
Right VDC gas flow (top/bottom)	6.123/5.659		
Right Cerenkov pressure (PSI)	—		
Right VDC HV on (top/bottom) ?	4.004/4.014K		
Right VDC threshold on (top/bot.) ?	3.87/3.84		
Right S1/S2 HV on ?	✓		
Right Cerenkov HV on ?	✓		
Happex-run started/run-# ?	✓ 31395		
Last-Left-HRS run number	24512		
Left-HRS-DAQ deadtime	6.8%		
Left-HRS-DAQ CODA rate	2.6/2.5 k		
Left-HRS-prescale PS3/PS4	5/4		
Left-HRS-rates T3/T4 (Hz)	10k/200		
Last Left-HRS run replayed	2452		
Left VDC eff./wiremap OK ?	✓		
Last-Right-HRS run number	21358/9		
Right-DAQ deadtime	17%		
Right-DAQ CODA rate	2.6/2.9		
Right-prescale PS1/PS2	1/1		
Right-rates T1/T2	3.3k/187		
Last Right-HRS run replayed	21359		
Right VDC eff./wiremap OK ?	✓		

A_y (E05-015) Shift Check List

Date: May 20th, 2009

	Owl	Day	Swing
Time (hh/mm,24:00)	04:37		~~20~~:59
Your Name	E. Long		P King
Visual Hall Inspection	OK		
Beam Energy (MeV)	2425MeV		2425.5
Beam Current (uA)	10uA		10.2
# beam trips last hour	10		15
SPOT++ size X/Y (mm)	3/3		4x4
SPOT++ saved in Halog ?	Yes		✓
Beam Position at 1H04A X/Y (mm)	-0.531/2.103		-0.42/2.05
Beam Position at 1H04B X/Y (mm)	-0.531/2.022		-0.49/2.00
Hall A beam position feedback	On		On
Alarm Handler running ?	Yes		Yes
Saved Hall A tools screen into Halog ?	Yes		✓
Wien angle			66.92
Beam half-wave plate IN/OUT ?	Out		OUT
Most recent Hall A Moller date/result			
Target position	^{3}He		^{3}He
Pol. ^{3}He optical pumping direction	Transverse −		Transverse +
Pumping laser on ?	Yes		Yes
Temperature in laser optics enclosure			
Pol. ^{3}He oven heater ON ?	Yes		Yes
^{3}He cell oven temperature (RTDs)	230°		~~230/248/268~~ 230
^{3}He cell temperature (RTDs)	82.5, 45, 45.5, 55		83/50/43/45/55
^{3}He cell polarization, recent NMR	49.9%		43.5%
^{3}He cell polarization, recent EPR	49.1%		
Spin-flip ON ?	OFF		No
Target cooling jet flow	40.9		
Ref. cell gas type	H_2		H_2
Ref. cell low pressure gauge (left)	1		1
Ref. cell high pressure gauge (right)	133		131
Ref. cell tempreture (RTDs)	45, 45		0/42/43
Left Arm Angle	14.5°		14.5
Left Arm Momentum (GeV/c)	2.277		2.277
Left Arm NMR locked ?	✓		✓
Left Arm Helium flow OK ?	✓		✓
Left Arm liquid level OK ?	✓		✓
Left Arm Quad #1 (A)	1713		1713.2
Left Arm Quad #2 (A)	980		980.4
Left Arm Dipole (A)	776		776.7
Left Arm Quad #3 (A)	906		906.4

Page-2: Shift Check List

Date:

	Owl	Day	Swing
Right Arm Angle	16.0		16.0
Right Arm Momentum (GeV/c)	2.225		2.2248
Right Arm NMR locked ?	✓		✓
Right Arm Helium flow OK ?	✓		✓
Right Arm liquid level OK ?	✓		✓
Right Arm Quad #1 (A)	1672		1672.9
Right Arm Quad #2 (A)	957		957.5
Right Arm Dipole (A)	777		777.5
Right Arm Quad #3 (A)	865		885.3
Argon pressure (PSI)	1475		1437
Ethane pressure (PSI)	357		439
CO2 pressure (PSI)	563		702
Left VDC gas flow (top/bottom)	5.2/5.8		5.11/5.85
Left Cerenkov pressure (PSI)			
Left VDC HV on (top/bottom) ?	Yes/Yes		3.991/4.001
Left VDC threshold on (top/bot.) ?	3.9/4.0		3.89/3.96
Left S1/S2 HV on ?			✓
Left Cerenkov HV on ?			✓
Right VDC gas flow (top/bottom)	6.1/5.7		6.21/6.05
Right Cerenkov pressure (PSI)			
Right VDC HV on (top/bottom) ?	No/Yes		4.000/4.009
Right VDC threshold on (top/bot.) ?	-0.02/4.0		3.87/3.84
Right S1/S2 HV on ?			✓
Right Cerenkov HV on ?			✓
Happex-run started/run-# ?	31385		19:39 / 31391
Last-Left-HRS run number	2492	~~2524~~	2524
Left-HRS-DAQ deadtime	6	~~6~~	6
Left-HRS-DAQ CODA rate	3868 KB/s	~~6.2 MB/s~~	6.2 MB/s
Left-HRS-prescale PS3/PS4	5/4	~~5/4~~	5/4
Left-HRS-rates T3/T4	1e4Hz/1.8e2Hz	~~1x10⁴Hz/205~~	1x10⁴Hz/205
Last Left-HRS run replayed	2492	~~2518~~	2518
Left VDC eff./wiremap OK ?	OK	~~OK~~	OK
Last-Right-HRS run number	21401	~~21~~	21428
Right-DAQ deadtime	17		17
Right-DAQ CODA rate	2.22 KB/s		3MB/s
Right-prescale PS1/PS2	1/1		1/1
Right-rates T1/T2	3.3e3Hz/8.1e1Hz		3.3kHz/90
Last Right-HRS run replayed	21401		21422
Right VDC eff./wiremap OK ?	OK		OK

A_y (E05-015) Shift Check List

Date:

	Owl	Day	Swing
Time (hh/mm,24:00)	7:15		11:41
Your Name	J.P. Chen		A. Puckett
Visual Hall Inspection	✓		OK
Beam Energy (MeV)	2425.5		2425.5
Beam Current (uA)	0 beam off		
# beam trips last hour	5		
SPOT++ size X/Y (mm)	—		
SPOT++ saved in Halog ?	—		
Beam Position at 1H04A X/Y (mm)	—		
Beam Position at 1H04B X/Y (mm)	—		
Hall A beam position feedback	—		
Alarm Handler running ?	✓		
Saved Hall A tools screen into Halog ?	✓		
Wien angle	66.92		
Beam half-wave plate IN/OUT ?	OUT		
Most recent Hall A Moller date/result	—		
Target position	Pol. 3He		
Pol. ^{3}He optical pumping direction	Transverse		
Pumping laser on ?	Yes		
Temperature in laser optics enclosure			
Pol. ^{3}He oven heater ON ?	Yes		
^{3}He cell oven temperature (RTDs)	248/247		
^{3}He cell temperature (RTDs)	83, 50, 43, 45, 56		
^{3}He cell polarization, recent NMR	51.2%		
^{3}He cell polarization, recent EPR	—		
Spin-flip ON ?	off		
Target cooling jet flow	40.9		
Ref. cell gas type	H2		
Ref. cell low pressure gauge (left)	—		
Ref. cell high pressure gauge (right)	130		
Ref. cell tempreture (RTDs)	0 / 43/43		
Left Arm Angle	14.5		
Left Arm Momentum (GeV/c)	2.277		
Left Arm NMR locked ?	Yes		
Left Arm Helium flow OK ?	Yes		
Left Arm liquid level OK ?	Yes		
Left Arm Quad #1 (A)	1713.220		
Left Arm Quad #2 (A)	980.38		
Left Arm Dipole (A)	776.72		
Left Arm Quad #3 (A)	908.43		

Page-2: Shift Check List

Date:

	Owl	Day	Swing
Right Arm Angle	15.998		
Right Arm Momentum (GeV/c)	2.224		
Right Arm NMR locked ?	Yes		
Right Arm Helium flow OK ?	Yes		
Right Arm liquid level OK ?	Yes		
Right Arm Quad #1 (A)	1672.654		
Right Arm Quad #2 (A)	957.47		
Right Arm Dipole (A)	777.50		
Right Arm Quad #3 (A)	885.25		
Argon pressure (PSI)	1385		
Ethane pressure (PSI)	510		
CO2 pressure (PSI)	658		
Left VDC gas flow (top/bottom)	5.11		
Left Cerenkov pressure (PSI)	5.85		
Left VDC HV on (top/bottom) ?	Yes (4/4)		
Left VDC threshold on (top/bot.) ?	3.90/3.96		
Left S1/S2 HV on ?	Yes		
Left Cerenkov HV on ?	Yes		
Right VDC gas flow (top/bottom)	6.07		
Right Cerenkov pressure (PSI)	5.74		
Right VDC HV on (top/bottom) ?	Yes (4/4)		
Right VDC threshold on (top/bot.) ?	3.87/3.84		
Right S1/S2 HV on ?	Yes		
Right Cerenkov HV on ?	Yes		
Happex-run started/run-# ?	Stopped		
Last-Left-HRS run number	23410		
Left-HRS-DAQ deadtime	7		
Left-HRS-DAQ CODA rate	3.2K		
Left-HRS-prescale PS3/PS4	5/4		
Left-HRS-rates T3/T4	10.3K / 208		
Last Left-HRS run replayed	Yes		
Left VDC eff./wiremap OK ?	Yes		
Last-Right-HRS run number	21447		
Right-DAQ deadtime	.17		
Right-DAQ CODA rate	3.4K		
Right-prescale PS1/PS2	1/1		
Right-rates T1/T2	3.41K/91		
Last Right-HRS run replayed	Yes		
Right VDC eff./wiremap OK ?	Yes		