

p(e,e' π)n Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 22 / 08 / 15
yy mm dd

Initials: HS
D.G.

Use a separate sheet for each configuration.

HMS

SHMS

Configuration Name:

$Q^2 = 2.12$, $W = 2.05$

$x = 0.31$, h_{high} , $SHMS$ right

E_{beam}: 8.458 GeV

I_{beam}: 40-80 μ A

Purpose:

- ☒ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☐ Other: _____

Raster: ☒ On ☐ Off
Size: 2mm X 2mm

HMS

p: +0.5560 θ (TV): 13.14
From GUI Nearest 0.005

SHMS

p: +2.7920 θ (TV): 19.20
From GUI Nearest 0.005

Collimator:

HMS: Large ☒
Sieve ☐

SHMS: Collim ☒
Sieve ☐

Beam position and angle on target:

3H07A	X	Y
<u>-0.09</u> mm		<u>-0.3</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.68</u> mm		<u>-0.47</u> mm
Nomin:		Nomin:

Q1	I-SET (from PSU) <u>728.3840</u> A B-HALL <u>0.96910</u> T	I-SET (from PSU) <u>924.4620</u> A B-HALL <u>-5.860</u> kG	HB
Q2	I-SET (from PSU) <u>583.0760</u> A B-HALL <u>-1.13925</u> T	I-SET (from PSU) <u>586.2350</u> A B-HALL <u>4.191</u> kG	Q1
Q3	I-SET (from PSU) <u>281.5540</u> A B-HALL <u>0.56407</u> T	I-SET (from PSU) <u>984.6870</u> A B-HALL <u>-9.328</u> kG	Q2
D	I-READ <u>1780.47</u> A B-NMR <u>1.5369600</u> T	I-SET (from PSU) <u>647.9150</u> A B-HALL <u>-6.290</u> kG	Q3
	If momentum increased: ☒ HMS cycled? ☒ SHMS cycled?	I-SET (from PSU) <u>890.8170</u> A B-NMR <u>6.432</u> kG	D

Run Number:

16202

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☐ Settings Verified?
☐ HV OK?
☐ 50k OK?

HMS prescale
pretrig: _____ k

$e-\pi n$ evts:

SHMS prescale
pretrig: _____ k

$\Sigma e-\pi n$ evts:

COIN
pretrig: _____ k

- ☐ Data ok
☒ Junk

Comments:

Junk - wrong PS

Run Number:

16203

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 11
PS2: -1
PS3: -10
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☒ Settings Verified?
☒ HV OK?
☐ 50k OK?

HMS prescale
pretrig: 12 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 14 k

$\Sigma e-\pi n$ evts:

COIN
pretrig: 90 k

- ☒ Data ok
☐ Junk

Comments:

Run @ 40 μ A while waiting for higher current: stopped @ 10012
 $Q = 4.043$ mC

Run Number:

16204

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 13
PS2: -1
PS3: -10
PS4: 10
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☒ Settings Verified?
☒ HV OK?
☐ 50k OK?

HMS prescale
pretrig: _____ k

$e-\pi n$ evts:

SHMS prescale
pretrig: _____ k

$\Sigma e-\pi n$ evts:

COIN
pretrig: _____ k

- ☒ Data ok
☐ Junk

Comments:

FADC Mode 10

Run Number:

16205

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 13
PS2: -1
PS3: -10
PS4: -1
PS5: -1
PS6: 0
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☒ Settings Verified?
☒ HV OK?
☒ 50k OK?

HMS prescale
pretrig: 73740 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 43 k

$\Sigma e-\pi n$ evts:

COIN
pretrig: 1522 k

- ☒ Data ok
☐ Junk

Comments:

HMS 3/4

$Q = 2.1327$ mC

186.79 counts

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 22/08/15
yy mm dd

Initials: DS

Continuation of Configuration:

$Q^2=2.12, W=2.05$, high Σ

SHMS right

This sheet is only to be used to continue a running configuration.

Run Number: 16208	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: 13 PS2: -1 PS3: -1 PS4: 12 PS5: 9 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 14:04 Stop time (RC GUI): 14:16	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: 26 k $e-\pi n$ evts: 55165	SHMS prescale pretrig: 31 k $\Sigma e-\pi n$ evts: 55165	COIN pretrig: 1085 k ☒ Data ok ☐ Junk
Comments: 1.14 million events 22207+0609 $Q=36.272$ mC							

Run Number: 16207	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: 13 PS2: -1 PS3: -1 PS4: 12 PS5: 9 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 14:18 Stop time (RC GUI): 14:46	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: 66 k $e-\pi n$ evts: 56631	SHMS prescale pretrig: 80 k $\Sigma e-\pi n$ evts: 111796	COIN pretrig: 2839 k ☒ Data ok ☐ Junk
Comments: 2.98 million CODA events $\Sigma = 4.12$ million events							

Run Number: 16208	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: 13 PS2: -1 PS3: -1 PS4: 12 PS5: 9 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 14:48 Stop time (RC GUI): 15:17	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: 67 k $e-\pi n$ evts: 56326	SHMS prescale pretrig: 80 k $\Sigma e-\pi n$ evts: 168122	COIN pretrig: 2848 k ☒ Data ok ☐ Junk
Comments: 2.98 million CODA events $\Sigma = 7.10$ million							

Run Number: 16209	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: 13 PS2: -1 PS3: -1 PS4: 12 PS5: 9 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 15:18 Stop time (RC GUI): 15:42	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: 66 k $e-\pi n$ evts: 56527	SHMS prescale pretrig: 80 k $\Sigma e-\pi n$ evts: 224649	COIN pretrig: 2843 k ☒ Data ok ☐ Junk
Comments: 2.98 million CODA events $\Sigma = 10.08$ million							

Run Number: 16210	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: 13 PS2: -1 PS3: -1 PS4: 12 PS5: 9 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 15:45 Stop time (RC GUI): 16:32:52	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: 60 k $e-\pi n$ evts: 51174	SHMS prescale pretrig: 72 k $\Sigma e-\pi n$ evts: 275823	COIN pretrig: 2560 k ☒ Data ok ☐ Junk
Comments: 2.68 million CODA evts. $\Sigma = 12.76$ million							

Run Number: 16211	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: 13 PS2: -1 PS3: -1 PS4: 12 PS5: 9 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 16:41:00 Stop time (RC GUI): ~17:20	☐ Settings Verified? ☐ HV OK? ☒ 50k OK?	HMS prescale pretrig: 84 k $e-\pi n$ evts: 77124	SHMS prescale pretrig: 107 k $\Sigma e-\pi n$ evts: 352962	COIN pretrig: 3508 k ☒ Data ok ☐ Junk
Comments: 3.7 million							

p(e,e' π)n Run Sheet

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Date: 22/08/15
yy mm dd

Initials: ADP

Continuation of Configuration:

$Q^2 = 2.12$, $W = 2.05$, high ϵ
SHMS right

This sheet is only to be used to continue a running configuration.

Run Number: 16213	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>-1</u> PS4: <u>12</u> PS5: <u>9</u> PS6: <u>-9</u> Mode10: cer / fadc	Start time (RC GUI): <u>17:23:53</u> Stop time (RC GUI): <u>17:45</u>	☒ Settings Verified? ☒ HV OK? ☐ 50k OK?	HMS prescale pretrig: <u>61</u> k $e-\pi n$ evts: <u>51121</u>	SHMS prescale pretrig: <u>73</u> k $\Sigma e-\pi n$ evts: <u>404073</u>	COIN pretrig: <u>66</u> k ☒ Data ok ☐ Junk
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Note: $Q_{tot} = 694.637$ mC
end run failed again
2.77 million CODA evt.
16214 is junk

Run Number: 16215	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>-1</u> PS4: <u>12</u> PS5: <u>0</u> PS6: <u>-1</u> Mode10: cer / fadc	Start time (RC GUI): <u>17:48:23</u> Stop time (RC GUI): <u>17:54</u>	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: ____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: ____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: ____ k ☒ Data ok ☐ Junk
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FADC mode10 run

Run Number: 16216	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: ____ PS2: ____ PS3: ____ PS4: ____ PS5: ____ PS6: ____ Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI): 	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: ____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: ____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: ____ k ☐ Data ok ☒ Junk
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Junk short run for HMS 3/4

Run Number: 16217	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>-1</u> PS4: <u>12</u> PS5: <u>0</u> PS6: <u>-1</u> Mode10: cer / fadc	Start time (RC GUI): <u>18:05</u> Stop time (RC GUI): <u>18:07</u>	☒ Settings Verified? ☒ HV OK? ☐ 50k OK?	HMS prescale pretrig: ____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: ____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: ____ k ☐ Data ok ☒ Junk
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Dummy stop wrong PS1, 4 prescales

Run Number: 16218	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: <u>10</u> PS2: <u>-1</u> PS3: <u>-1</u> PS4: <u>9</u> PS5: <u>0</u> PS6: <u>-1</u> Mode10: cer / fadc	Start time (RC GUI): <u>18:34</u> Stop time (RC GUI): 	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: ____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: ____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: ____ k ☐ Data ok ☒ Junk
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Run Start Failed

Run Number: 16219	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: <u>10</u> PS2: <u>-1</u> PS3: <u>-1</u> PS4: <u>9</u> PS5: <u>0</u> PS6: <u>-1</u> Mode10: cer / fadc	Start time (RC GUI): <u>18:34</u> Stop time (RC GUI): 	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: <u>96</u> k $e-\pi n$ evts: <u>2213</u>	SHMS prescale pretrig: <u>110</u> k $\Sigma e-\pi n$ evts: <u>2213</u>	COIN pretrig: <u>141</u> k ☒ Data ok ☐ Junk
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$Q = 51.219$ mC

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 22 / 8 / 15
yy mm dd

Initials: AJP

Use a separate sheet for each configuration.

Configuration Name:

$Q^2=2.12$, $W=2.05$, high z
SHMS center

E_{beam} : 8.58 GeV

I_{beam} : 80 μA

Purpose:

- ☒ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☐ Other: _____

Raster: ☒ On ☐ Off
Size: 2x2

Beam position and angle on target:

3H07A	X	Y
<u>-0.1</u> mm		<u>-0.3</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.7</u> mm		<u>-0.5</u> mm
Nomin:		Nomin:

HMS

SHMS

Q1	I-SET (from PSU) <u>728.384</u> A B-HALL <u>0.97</u> T	I-SET (from PSU) <u>924.462</u> A B-HALL <u>-5.866</u> kG	HB
Q2	I-SET (from PSU) <u>583.076</u> A B-HALL <u>-1.14</u> T	I-SET (from PSU) <u>586.235</u> A B-HALL <u>4.19</u> kG	Q1
Q3	I-SET (from PSU) <u>281.554</u> A B-HALL <u>0.566</u> T	I-SET (from PSU) <u>984.687</u> A B-HALL <u>-9.33</u> kG	Q2
D	I-READ <u>1779.2</u> A B-NMR <u>1.53698</u> T	I-SET (from PSU) <u>647.915</u> A B-HALL <u>-6.3</u> kG	Q3
	If momentum increased: ☐ HMS cycled? ☐ SHMS cycled?	<u>810.817</u> A B-NMR <u>6.438</u> kG	D

Run Number:

16220

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 11
PS2: -1
PS3: -1
PS4: 10
PS5: 0
PS6: 9
Mode10: cer / fadc

Start time (RC GUI):

19:16:16

Stop time (RC GUI):

19:48

☒ Settings Verified?

☒ HV OK?

☒ 50k OK?

HMS prescale
pretrig: 330 k

$e-\pi n$ evts:
69,086

SHMS prescale
pretrig: 237 k

$\Sigma e-\pi n$ evts:

COIN pretrig: 2347 k

☒ Data ok
☐ Junk

Comments:

2.9 Mevts

$Q=116.782$ mC

Run Number:

16221

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 11
PS2: -1
PS3: -1
PS4: 10
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

19:49:12

Stop time (RC GUI):

19:54:59

☒ Settings Verified?

☒ HV OK?

☐ 50k OK?

HMS prescale
pretrig: _____ k

$e-\pi n$ evts:

SHMS prescale
pretrig: _____ k

$\Sigma e-\pi n$ evts:

COIN pretrig: _____ k

☒ Data ok
☐ Junk

Comments:

FADC mode 10 run

Run Number:

16222

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 11
PS2: -1
PS3: 10
PS4: -1
PS5: 7
PS6: 0
Mode10: cer / fadc

Start time (RC GUI):

19:56:31

Stop time (RC GUI):

19:58:25

☐ Settings Verified?

☐ HV OK?

☐ 50k OK?

HMS prescale
pretrig: 12250 k

$e-\pi n$ evts:
4785

SHMS prescale
pretrig: 17 k

$\Sigma e-\pi n$ evts:
73871

COIN pretrig: 176 k

☒ Data ok
☐ Junk

Comments:

HMS 3/4 run. Ended early b/c $Q^2=8.474$ mC FADC mode 10 selected data still good

Run Number:

16223

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 11
PS2: -1
PS3: 10
PS4: -1
PS5: 7
PS6: 0
Mode10: cer / fadc

Start time (RC GUI):

19:59:21

Stop time (RC GUI):

☒ Settings Verified?

☒ HV OK?

☒ 50k OK?

HMS prescale
pretrig: _____ k

$e-\pi n$ evts:
60768

SHMS prescale
pretrig: 208 k

$\Sigma e-\pi n$ evts:
134639

COIN pretrig: 2081 k

☒ Data ok
☐ Junk

Comments:

HMS 3/4 run: 2.9 M end run failed

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 22 / 8 / 15
yy mm dd

Initials: AJC

Continuation of Configuration:

$Q^2 = 2.12$ $W = 2.05$, high z

SHMS center

This sheet is only to be used to continue a running configuration.

Run Number: 16224	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐	PS1: 11 PS2: -1 PS3: -1 PS4: 10 PS5: 0 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 20:33:24 Stop time (RC GUI): 20:57:46	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale 236 k pretrig: $e-\pi n$ evts: 49,052	SHMS prescale 169 k pretrig: $\Sigma e-\pi n$ evts: 12743	COIN pretrig: 1683 k ☒ Data ok ☐ Junk
Comments: 2.1 MeV, 7.9 MeV total 183691							

Run Number: 16225	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐	PS1: 11 PS2: -1 PS3: -1 PS4: 10 PS5: 0 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 20:58:25 Stop time (RC GUI): 21:23:50	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale 233 k pretrig: $e-\pi n$ evts: 48,860	SHMS prescale 167 k pretrig: $\Sigma e-\pi n$ evts: 122731	COIN pretrig: 1639 k ☒ Data ok ☐ Junk
Comments: 2.0 MeV, 9.9 MeV $Q = 82.295$, $Q_{tot} = 207.551$ mC (23255)							

Run Number: 16226	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐	PS1: 11 PS2: -1 PS3: -1 PS4: 10 PS5: 0 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 21:26:25 Stop time (RC GUI): 21:28:54	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale 23 k pretrig: $e-\pi n$ evts: 4735	SHMS prescale 16 k pretrig: $\Sigma e-\pi n$ evts: 237286	COIN pretrig: 158 k ☒ Data ok ☐ Junk
Comments: 0.2 MeV 10.1 MeV total							

Run Number: 16227	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐	PS1: 9 PS2: -1 PS3: -1 PS4: 8 PS5: 0 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 21:41:38 Stop time (RC GUI):	☒ Settings Verified? ☒ HV OK? ☐ 50k OK?	HMS prescale 141 k pretrig: $e-\pi n$ evts: 1501	SHMS prescale 104 k pretrig: $\Sigma e-\pi n$ evts: 1501	COIN pretrig: 85 k ☒ Data ok ☐ Junk
Comments: this is the dummy run $Q = 37.403$							

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale _____ k pretrig: $e-\pi n$ evts:	SHMS prescale _____ k pretrig: $\Sigma e-\pi n$ evts:	COIN pretrig: _____ k ☐ Data ok ☐ Junk
Comments:							

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale _____ k pretrig: $e-\pi n$ evts:	SHMS prescale _____ k pretrig: $\Sigma e-\pi n$ evts:	COIN pretrig: _____ k ☐ Data ok ☐ Junk
Comments:							

$p(e,e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 22/8/15
yy mm dd

Initials: AJP

Use a separate sheet for each configuration.

Configuration Name: _____

$Q^2 = 2.12, W = 2.05, \text{high } \epsilon$
SHMS left

E_{beam}: 8.458 GeV

I_{beam}: 80 μA

Purpose:

- ☒ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☐ Other: _____

Raster: ☒ On ☐ Off
Size: 2x2

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:		Nomin:
3H07C	X	Y
	mm	mm
Nomin:		Nomin:

HMS

SHMS

Q1	I-SET (from PSU) B-HALL unchanged most recent setting	A	I-SET (from PSU) B-HALL from	A	HB
Q2	I-SET (from PSU) B-HALL 10	A	I-SET (from PSU) B-HALL 10	A	Q1
Q3	I-SET (from PSU) B-HALL 10	A	I-SET (from PSU) B-HALL 10	A	Q2
D	I-READ B-NMR 10	A	I-SET (from PSU) B-HALL 10	A	Q3
	If momentum increased: ☐ HMS cycled? ☐ SHMS cycled?		I-SET (from PSU) B-NMR 10	A	D

Run Number:

16228

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 11
PS2: -1
PS3: -1
PS4: 10
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

22:24:01

Stop time (RC GUI):

22:23

- ☒ Settings Verified?
☒ HV OK?
☒ 50k OK?

HMS prescale
pretrig: 34 k

$e-\pi n$ evts:

6114

SHMS prescale
pretrig: 14 k

$\Sigma e-\pi n$ evts:

6114

COIN pretrig: 167 k

- ☒ Data ok
☐ Junk

Comments:

Short run to check rate

* SHMS angle
may not be correct in first analysis

Run Number:

16229

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 11
PS2: -1
PS3: -1
PS4: 10
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

22:24:01

Stop time (RC GUI):

22:55:29

- ☒ Settings Verified?
☒ HV OK?
☒ 50k OK?

HMS prescale
pretrig: 327 k

$e-\pi n$ evts:

58814

SHMS prescale
pretrig: 138 k

$\Sigma e-\pi n$ evts:

64933

COIN pretrig: 154 k

- ☒ Data ok
☐ Junk

Comments:

2 M evts.

Run Number:

16230

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 11
PS2: -1
PS3: -1
PS4: 10
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

22:56:13

Stop time (RC GUI):

23:03:27

- ☐ Settings Verified?
☐ HV OK?
☐ 50k OK?

HMS prescale
pretrig: k

$e-\pi n$ evts:

SHMS prescale
pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

- ☐ Data ok
☐ Junk

Comments:

FADC mode 10 run

Run Number:

16231

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 11
PS2: -1
PS3: -1
PS4: 10
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

23:04

Stop time (RC GUI):

23:05

- ☐ Settings Verified?
☐ HV OK?
☐ 50k OK?

HMS prescale
pretrig: k

$e-\pi n$ evts:

SHMS prescale
pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

- ☐ Data ok
☐ Junk

Comments:

HMS 3/4 w/ FADC mode 10

$p(e,e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 22/8/15
yy mm dd

Initials: AGH

Continuation of Configuration:

$Q^2 = 2.12$, $W = 2.05$, high ϵ

SHMS left

This sheet is only to be used to continue a running configuration.

16234 = junk

Run Number: 16232	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: 11 PS2: -1 PS3: 11 PS4: -1 PS5: 0 PS6: 0 Mode10: cer / fadc	Start time (RC GUI): 23:06:16 Stop time (RC GUI): 23:32	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: 1600 k $e-\pi n$ evts: 55628	SHMS prescale pretrig: 132 k $\Sigma e-\pi n$ evts: 120561	COIN pretrig: 1522 k ☒ Data ok ☐ Junk
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HMS $\frac{3}{4}$ run 2.0 M

Run Number: 16233	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: 8 PS2: -1 PS3: 8 PS4: 8 PS5: 0 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 23:47:24 Stop time (RC GUI): 00:00:34	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: 162 k $e-\pi n$ evts: 937	SHMS prescale pretrig: 97 k $\Sigma e-\pi n$ evts: 454408	COIN pretrig: 49 k ☒ Data ok ☐ Junk
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Poor beam ???

Run Number: 16234 16235	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k ☐ Data ok ☒ Junk
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Junk

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k ☐ Data ok ☐ Junk
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Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k ☐ Data ok ☐ Junk
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Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k ☐ Data ok ☐ Junk
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$p(e,e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 22/08/16
yy mm dd

Initials: RLT

Use a separate sheet for each configuration.

Configuration Name: _____

Lumi Scan (FADC)
Q² = 2.12

E_{beam}: 8.48 GeV

I_{beam}: _____ μ A

Purpose:

- ☐ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☒ Other: Lumi

Raster: ☒ On ☐ Off
Size: 2x2

Beam position and angle on target:

3H07A	X	Y
<u>-0.09</u> mm		<u>-0.28</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.66</u> mm		<u>-0.46</u> mm
Nomin:		Nomin:

HMS

SHMS

Q1	I-SET (from PSU) <u>728.384</u> A B-HALL <u>0.97</u> T	I-SET (from PSU) <u>924.462</u> A B-HALL <u>-5.866</u> KG	HB
Q2	I-SET (from PSU) <u>583.076</u> A B-HALL <u>-1.14</u> T	I-SET (from PSU) <u>586.235</u> A B-HALL <u>4.19</u> KG	Q1
Q3	I-SET (from PSU) <u>281.554</u> A B-HALL <u>0.566</u> T	I-SET (from PSU) <u>984.687</u> A B-HALL <u>-9.33</u> KG	Q2
D	I-READ <u>1779.2</u> A B-NMR <u>1.53698</u> T	I-SET (from PSU) <u>647.915</u> A B-HALL <u>-6.3</u> KG	Q3
	If momentum increased: ☐ HMS cycled? ☐ SHMS cycled?	I-SET (from PSU) <u>890.817</u> A B-NMR <u>6.438</u> KG	D

Run Number:

16235

Comments:

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics _____ cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☐ Settings Verified?
☐ HV OK?
☐ 50k OK?

HMS prescale
pretrig: _____ k

$e-\pi n$ evts:

SHMS prescale
pretrig: _____ k

$\Sigma e-\pi n$ evts:

COIN
pretrig: _____ k

- ☐ Data ok
☒ Junk

I = 50 nA

Junk

Run Number:

16236

Comments:

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics _____ cm
☐ _____

PS1: 11
PS2: -1
PS3: -1
PS4: 11
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☒ Settings Verified?
☒ HV OK?
☒ 50k OK?

HMS prescale
pretrig: _____ k

$e-\pi n$ evts:

SHMS prescale
pretrig: _____ k

$\Sigma e-\pi n$ evts:

COIN
pretrig: _____ k

- ☐ Data ok
☐ Junk

I = 50 nA

Coda: 740K

Run Number:

16237

Comments:

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics _____ cm
☐ _____

PS1: 10
PS2: -1
PS3: -1
PS4: 9
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☒ Settings Verified?
☒ HV OK?
☒ 50k OK?

HMS prescale
pretrig: _____ k

$e-\pi n$ evts:

SHMS prescale
pretrig: _____ k

$\Sigma e-\pi n$ evts:

COIN
pretrig: _____ k

- ☐ Data ok
☐ Junk

I = 20 nA

Coda: 750K

Run Number:

16238

Comments:

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics _____ cm
☐ _____

PS1: 11
PS2: _____
PS3: _____
PS4: 11
PS5: 0
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☒ Settings Verified?
☒ HV OK?
☒ 50k OK?

HMS prescale
pretrig: _____ k

$e-\pi n$ evts:

SHMS prescale
pretrig: _____ k

$\Sigma e-\pi n$ evts:

COIN
pretrig: _____ k

- ☐ Data ok
☐ Junk

I = 65 nA

Coda: 800K

$p(e,e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 22/08/16
yy mm dd

Initials: RL

Continuation of Configuration:

Lim Scan (FADC)

Q² = 2.12

This sheet is only to be used to continue a running configuration.

Run Number: <u>16239</u>	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: <u>10</u> PS2: _____ PS3: _____ PS4: <u>10</u> PS5: <u>8</u> PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): <u>04:31</u> Stop time (RC GUI): <u>04:59</u>	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k ☒ Data ok ☐ Junk
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I = 30 nA

Coda: 850k

Run Number: <u>16240</u>	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: <u>10</u> PS2: _____ PS3: _____ PS4: <u>10</u> PS5: <u>8</u> PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): <u>05:14</u> Stop time (RC GUI): <u>05:52</u>	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k ☒ Data ok ☐ Junk
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I = 30 nA

Coda: 759k

Begin down for while

Run Number: <u>16241</u>	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: <u>10</u> PS2: _____ PS3: _____ PS4: <u>10</u> PS5: <u>8</u> PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): <u>05:58</u> Stop time (RC GUI): <u>06:02</u>	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k ☒ Data ok ☐ Junk
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I = 30 nA

Coda: 27k

Q1 Interlock

Run Number: <u>16242</u>	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: <u>9</u> PS2: _____ PS3: _____ PS4: <u>9</u> PS5: <u>8</u> PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): <u>8:14</u> Stop time (RC GUI): <u>9:09</u>	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k ☐ Data ok ☐ Junk
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I = 12 nA

Coda:

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): Stop time (RC GUI): 	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k ☐ Data ok ☐ Junk
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Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): Stop time (RC GUI): 	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k ☐ Data ok ☐ Junk
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