

# RIGHT-ARM ONLY on this page: $A_x, A_z$ Production Run Sheet

Date: June 10, 2009	Author: S. Sirca / Lamiaa
Beam Energy: 2.425 GeV	Using Pol $^3\text{He}$ Cell: <input checked="" type="radio"/> N, Long, <input checked="" type="radio"/> Tran or Vertical
RHRS	BigBite
Momentum (GeV/c): 2.175 $\otimes$ / 1.865 Polarity: "-"	Current (A): 518 Polarity: <input checked="" type="radio"/> Positive
Angle: 18° Sieve Plate: IN or <input checked="" type="radio"/> OUT?	Angle: 75°

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
22295	00:38	01:09	$^3\text{He}$	9	2.8M	11	$\otimes$	-
22296	01:09	01:40	$^3\text{He}$	9	2.95M	11	$\otimes$	-
22297	01:41	02:11	$^3\text{He}$	9	2.93M	11	$\otimes$	-
22298	02:14	02:43 End run failed	$^3\text{He}$	9	2.9M	11	Momentum Ramped down to 1.865 GeV. Start Prod. run.	✓
22299	02:54	03:23	$^3\text{He}$	9	2.9M	11	set New golden run pos R-arm to # 22298	✓
22300	03:24	04:01	$^3\text{He}$	9	2.95M	11	New NNR: 58.8% $^3\text{He}$ Prod. run (Beam gone for 6 min in the end of (this run))	✓
22301	04:08	04:38	$^3\text{He}$	9	2.95M	11%	$^3\text{He}$ Prod. run (new compton run #)	✓
22302	04:38	04:42	$^3\text{He}$	9	347K	11%	Ended run to do NNR req. sweep suggested by TO due to an error message on the NNR control screen	✓
22303	04:46	05:01	$^3\text{He}$	9	1.29M	11%	New NNR gave 56.7% Back to prod.	✓
22304	06:09	06:38	$^3\text{He}$	9	2.93M	11%	After 1/4h, beam is back. Resume production after spot check	✓
22305	06:40	07:12	$^3\text{He}$	9	2.93M	11	New happen run # 131505 compton run # 19291	✓
22306	07:13	07:44	"	9	3M	11	$^3\text{He}$ Prod. run	✓

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More Comments:

$\otimes$  ramping down to 1.865 GeV/c

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Date:	10/06/09	Author:	F GARDNER ALD
Beam Energy:	2.425 GeV	Using Pol $^3\text{He}$ Cell:	<input checked="" type="checkbox"/> N, Long, <input checked="" type="checkbox"/> Tran, or Vertical
LHRS		BigBite	
Momentum (GeV/c):	2.32	Polarity: "-"	Current (A): 518
Angle: 12.5°	Sieve Plate: IN or <input checked="" type="checkbox"/> OUT?	Angle: 75°	Polarity: <input checked="" type="checkbox"/> Positive

H<sub>2</sub> ↑  
IN  
↓  
OUT  
H<sub>2</sub> ↓

Run Number	Start Time	Stop Time	Target	Beam (μA)	Number of Events	Dead Time	Comments	Replay Ok?
3436	07:45	<del>08:45</del>	$^3\text{He}$	9	4M	8%	$^3\text{He}$ Prod. run	✓
3437	08:16	08:46	$^3\text{He}$	9	4M	8		✓
3438	09:02	09:31	$^5\text{He}$	9	4M	9	change h.w. / plate out	✓
3439	09:35	10:22	$^3\text{He}$	9	4M		see spot ++ problem	✓
3440	10:25	11:01		9	4M	8		
3441	11:01	11:31		4	2.8M	7	stop on to rotate target	
3442	11:41	12:07	N <sub>2</sub> ref	9	2.8M	1	N <sub>2</sub> ref cell	✓
3443	12:15	12:48	$^2\text{He}$	9	4M	8	back to longitudinal $^3\text{He}$	✓
3444	12:52	13:15	$^5\text{He}$	9	3M	8	stop because of cooling water	
3445	14:00	14:30	$^3\text{He}$	9	4M	8		0
3446	14:32	15:02	$^3\text{He}$	9	4M	8		✓
3447	15:05	15:37	$^2\text{He}$	9	4M	8		✓

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Date:	10/06/09	Author:	C. CARLO ALDI
Beam Energy:	2.425 GeV	Using Pol <sup>3</sup> He Cell:	<input checked="" type="checkbox"/> N, Long, <input checked="" type="checkbox"/> Tran, or Vertical
RHRS		BigBite	
Momentum (GeV/c):	1.865	Polarity: "-"	Current (A): 518
Angle:	18°	Sieve Plate: IN or <input checked="" type="checkbox"/> OUT?	Angle: 75°
			Polarity: <input checked="" type="checkbox"/> Positive

Run Number	Start Time	Stop Time	Target	Beam (μA)	Number of Events	Dead Time	Comments	Replay Ok?
22307	07:45	8:15	<sup>3</sup> He	9		11%	<sup>3</sup> He Prod. run	✓
22308	08:16	8:47	<sup>3</sup> He	9	8.9	12	"	✓
22309	09:01	09:32	<sup>3</sup> He	9	8.9	11	7/2 is now OUT	✓
22310	09:34	10:22	<sup>3</sup> He	9	2.9		see spot ++ problem	✓
22311	10:25	11:01	"	9	2.9	11		
22312	11:03	11:34	"	11	2.1	11		✓
22313	11:41	12:07	N <sub>2</sub> ref	9	2.9M	13	N <sub>2</sub> ref cell	✓
22314	12:14	12:49	<sup>3</sup> He	9	2.9	11		✓
22315	12:50	13:15	<sup>3</sup> He	9	2.21	11		✓
22316	14:00	14:30	<sup>3</sup> He	9	2.93	11		✓
22317	14:31	15:02	<sup>3</sup> He	9	2.95	11		✓
22318	15:03	15:34	<sup>3</sup> He	9	2.95	11		

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Date: 10/06/09	Author:
Beam Energy: 8.415 GeV	Using Pol $^3\text{He}$ Cell: <input checked="" type="checkbox"/> N, <input checked="" type="checkbox"/> Long, <input checked="" type="checkbox"/> Tran, or Vertical
LHRS	BigBite
Momentum (GeV/c):	Polarity: "-" Current (A): 518 Polarity: <input checked="" type="checkbox"/> Positive
Angle: 17.5 Sieve Plate: IN or OUT ?	Angle: 25

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
3448	15:21	16:10	$^3\text{He}$	9	4M	8		✓
3449	16:13	16:44	$^3\text{He}$	9	1.54M	8	Coda died part way through run	✓
3450	16:57	17:24	$^3\text{He}$	9	4M	7	Target lasers off	✓
3451	17:22	17:53	$^3\text{He}$	9	4M	7		✓
3452	17:57	18:27	$^3\text{He}$	9	4M	7	1/2 plate back in	✓
3453	18:32	19:03	$^3\text{He}$	9	4M	7		✓
3454	19:05	19:35	$^3\text{He}$	9	4M	8	Target lasers back on	✓
3455	19:36	20:05	$^3\text{He}$	9	4M	8		✓
3456	20:06	20:37	$^3\text{He}$	9	4M	7		✓
3457	20:38	<del>21:13</del>	$^3\text{He}$	9	4M	8		✓
3458	21:13	21:45	$^3\text{He}$	9	4M	7		✓
3459	21:46	22:18	$^3\text{He}$	9	4M	7		✓

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Date: 10/06/09	Author:
Beam Energy: 2.425 GeV	Using Pol $^3\text{He}$ Cell: <input checked="" type="checkbox"/> N, Long, Tran, or Vertical
RHRS	BigBite
Momentum (GeV/c): 1.865	Polarity: "-"
Angle: $18^\circ$	Sieve Plate: IN or OUT ?
	Current (A): 5.12
	Polarity: Positive
	Angle: 75

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
22319	15:39	16:10	$^3\text{He}$	9	2.94			✓
22320	16:13	16:44	$^3\text{He}$	9	2.44	11		✓
22321	16:51	17:22	$^3\text{He}$	9	2.96	11	Target lasers off	✓
22322	17:22	17:54	$^3\text{He}$	9	2.96	11		✓
22323	17:57	18:29	$^3\text{He}$	9	2.95	11	$1/2$ wave plate back in	✓
22324	18:32	19:04	$^3\text{He}$	9	2.95	11		✓
22325	19:05	19:36	$^3\text{He}$	9	2.94	11	Target lasers back on	✓
22326	19:36	20:06	$^3\text{He}$	9	2.94	11		✓
22327	20:06	20:37	$^3\text{He}$	9	2.95	12		✓
22328	20:38	21:12	$^3\text{He}$	9	2.94	11		✓
22329	21:13	21:45	$^3\text{He}$	9	2.94	11		✓
22330	21:46	22:18	$^3\text{He}$	9	2.94	11		✓

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Date: 6/10/2009	Author: John Waker
Beam Energy: 2.425 GeV	Using Pol $^3\text{He}$ Cell (Y/N, Long, Tran, or Vertical) Y/N, Long
LHRS	BigBite $75^\circ$
Momentum (GeV/c): 2.320	Current (A): 578
Angle: 12.5	Polarity: "-"
Sieve Plate: IN or (OUT)	Angle: 75.0
	Polarity: Positive

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
3460	22:20	22:49	$^3\text{He}$	9	4M	8		✓
3461	22:51	23:20	$^3\text{He}$	9.4	4M	7		✓
3462	23:21	23:51	$^3\text{He}$	9	4M	8		✓
3463	23:52	00:05	$^3\text{He}$	9.5	1.8M	7	Ended to ramp down right HFS	✓
3464	00:07	00:38	$^3\text{He}$	9.5	4M	7.9%		✓
3465	00:38	01:08	$^3\text{He}$	9.5	4M	7.9		✓
3466	01:09	01:38	$^3\text{He}$	9.5	4M	9%		✓
3467	01:39	01:41	$^3\text{He}$	9.5	230k	8%	Ended in order to synchronize w/ right	✓
3468	01:52	02:22	$^3\text{He}$	9.5	2.1M	8	Ended due to MCC Problems	✓
3469							Junk test	
3470	03:02	03:31	$^3\text{He}$	9.5	4M	8		✓
3471	03:34	04:03	$^3\text{He}$	9.5	4M	8		✓

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Date: 6/10/2009	Author: John Watson
Beam Energy: 2.425 GeV	Using Pol $^3\text{He}$ Cell: <u>YN</u> , Long, Tran, or Vertical
RHRS 1.865	BigBite
Momentum (GeV/c): Polarity: "-"	Current (A): 518 Polarity: Positive
Angle: $18^\circ$ Sieve Plate: IN or OUT?	Angle: 750

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
22331	22:20	22:49	$^3\vec{\text{He}}$	9	2.9M	11		✓
22332	22:51	23:20	$^3\vec{\text{He}}$	9.4	2.94	11		✓
22333	23:21	23:51	$^3\vec{\text{He}}$	9	2.94	11		✓
22334	23:52	00:05	$^3\vec{\text{He}}$	9.5	1.3M	11	Ramp down right 4RS	✓
22335	01:33	01:41	$^3\vec{\text{He}}$	9.5	882 k	14.8	ended in order to sync w/ left	
<del>22336</del>			<del><math>^3\vec{\text{He}}</math></del>	<del>9.5</del>			<del>*</del> Now momentum is 0.7 GeV/c !!	
							momentum still hasn't stabilized	
22336	01:51	2:22	$^3\vec{\text{He}}$	9.5	1.8M	12	p started at 0.623 $\checkmark$ estimate range: 0.623 - 0.75	
<del>22338</del>							Junk test	
22338	03:01	03:32	$^3\vec{\text{He}}$	9.5	3.3 M	12	Momentum stable @ 0.7 GeV/c	✓
22339	03:33	04:03	$^3\vec{\text{He}}$	9.5	3.3 M	12		

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Date: 6/11/09	Author: Eric Jensen
Beam Energy: 2.42552 GeV	Using Pol $^3\text{He}$ Cell: <input checked="" type="radio"/> N, <input checked="" type="radio"/> Long Tran, or Vertical
LHRS	BigBite
Momentum (GeV/c): 2.320	Polarity: "-" Current (A): 518
Angle: $12.5^\circ$	Sieve Plate: IN or OUT ? Angle: $75.0^\circ$
	Polarity: Positive

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
3472	4:07	4:37	$^3\text{He}$	9.5	4M	8%		<input checked="" type="checkbox"/>
3473	4:38	5:07	$^3\text{He}$	9.5	4M	8%		
3474	5:09	5:39	$^3\text{He}$	9.5	4M	8%		
3475	5:41	6:14	$^3\text{He}$	9.5	4M	8%		
3476	6:16	7:01	$^3\text{He}$	9.5	4M	8%		
3477	7:05	7:41	$^3\text{He}$	9.5	4M	8%		
3478	7:44	8:18	$^3\text{He}$	2.5	4M	8%		
3479	8:21	8:43	$^3\text{He}$	9.5	2.29	7	Run stop because no beam we made the target to $\text{N}_2$	<input checked="" type="checkbox"/>
3480	8:57	9:09	$\text{N}_2$	9.5	1.13		we took a short run on $\text{N}_2$	<input checked="" type="checkbox"/>
3481	14:17	14:52	$\text{N}_2$	9.5	39K	0%	no beam BB DAQ CHECKOUT!	
3482	14:54	17:39	$\text{N}_2$	<del>9.5</del>		0%	Caomies	
3483	17:59	18:15	$\text{BeO}$	10	1.2M	0	optics run	

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Date: 6/11/09	Author: Eric Jensen
Beam Energy: 2.42552 GeV	Using Pol $^3\text{He}$ Cell: <u>Y/N</u> , Long, Tran, or Vertical
RHRS	BigBite
Momentum (GeV/c): 0.7	Polarity: "-" Current (A): 518
Angle: $18.0^\circ$	Sieve Plate: IN or OUT? Angle: $75.0^\circ$
	Polarity: Positive

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
22340	4:06	4:37	$^3\text{He}$	9.5	3.3M	12%		
22341	4:38	5:08	$^3\text{He}$	9.5	3.3M	12%		
22342	5:08	5:39	$^3\text{He}$	9.5	3.3M	12%		
22343	5:40	6:15	$^3\text{He}$	9.5	3.4M	13%		
22344	6:15	7:02	$^3\text{He}$	9.5	3.4M	13%		
22345	7:03	7:43	$^3\text{He}$	9.5	3.4M	13%		
22346	7:44	8:18	$^3\text{He}$	9.5	3.4M	13%		
22347	8:20	8:45	$^3\text{He}$	9.5	1.93	15		✓
22348	8:56	9:09	<del><math>^3\text{He}</math></del>	9.5	1.23		we took short run on $\text{N}_2$	
22349	14:17	14:52	$\text{N}_2$	9.5	67k	1%	no beam, cosmic run	
22350	14:53	17:59	$\text{N}_2$			2x	Cosmics	
22351	17:59	18:15	$\text{BeO}$	10	161k	4%	optics run	

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Date: 6/11/09	Author: Xiaoyan Deng
Beam Energy: 2.425 GeV	Using Pol $^3\text{He}$ Cell: Y/N, Long, Tran, or Vertical
LHRS	BigBite
Momentum (GeV/c): 2.320	Polarity: "-" Current (A):
Angle: 12.5	Sieve Plate: IN or OUT ? Polarity: Positive

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
3484	18:17	18:33	BeO	10		1	optics run	
3485	18:33	18:37	BeO	10	84K		optics run	
3486	18:55	19:32	H <sub>2</sub>	10	0.9M	1		
3487	20:07	20:11	H <sub>2</sub>				optics	
3488	20:16	20:51	H <sub>2</sub>	5	3.4M			✓
3489	20:54	20:57	BeO	3	0.53M	20		
3490	20:58	21:16	BeO	3	1.7M	9	Optics run	
3491	21:19	21:32	BeO	3	1.6M	9	raster off	
3493	21:42	21:54	BeO	3	1.7M	6	BigBite magnet current down	
3494	21:57	22:01	BeO	3	74K	5	BigBite off, raster on	
3495	22:16	22:29	BeO	3	2M	5	••	
3496	23:02		empty	3	0.5M		empty target	

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