

R

## LEFT-ARM ONLY on this page: A<sub>x</sub>, A<sub>z</sub> Production Run Sheet

<b>Date:</b>		<b>Author:</b> <i>M. Magorian</i>	
<b>Beam Energy:</b>		GeV	<b>Using Pol <sup>3</sup>He Cell:</b> Y/N, Long, Tran, or Vertical
<b>LHRS</b>		<b>BigBite</b>	
Momentum (GeV/c):	<i>2.225</i>	Polarity: "-"	Current (A):
Angle:	<i>16</i>	Sieve Plate: IN or OUT?	Polarity: Positive
			Angle:

Run Number	Start Time	Stop Time	Target	Beam (μA)	Number of Events	Dead Time	Comments	Replay Ok?
<del>211250</del>	<del>10:12</del>	<del>10:38</del>	<del><sup>3</sup>He</del>	<del>10μA</del>	<del>4.09</del>	<del>16</del>		✓
211261	10:39	11:06	"	"	4.09	17		✓
211262	11:07	11:34	"	"	4.08	17		✓
211263	11:35	12:01	"	"	4.1	16		✓
211264	12:02	12:29	"	"	4.01	17		✓
211265	12:30	13:03	"	"	4.1	18		✓
211266	13:04	13:37	"	"	4.21	17		✓
211267	13:38	14:07	"	"	4.1	17		✓
211268	14:08	14:36	"	"	3.98	17		✓
211269	///	///	///	///	JUNK		CODA left arm searched	
211270	14:40	15:07	"	"	3.79	17		✓
211271	14:07	15:38	"	"	3.99	17		✓

Please change to a new run sheet for a new setting or a new type of run on the Run Plan.

**More Comments:**

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## RIGHT-ARM ONLY on this page: A<sub>x</sub>, A<sub>z</sub> Production Run Sheet

Date: 4/17	Author: M. Muzian
Beam Energy: _____ GeV	Using Pol <sup>3</sup> He Cell: Y/N, Long, Tran, or Vertical
RHRS	BigBite
Momentum (GeV/c): 2.30	Polarity: "-" Current (A): _____ Polarity: Positive
Angle: 14.5	Sieve Plate: IN or <u>OUT</u> Angle: _____

Run Number	Start Time	Stop Time	Target	Beam (μA)	Number of Events	Dead Time	Comments	Replay Ok?
2368	15:40	16:06	<sup>3</sup> He <del>He</del>	10 μA	5M	12		✓
2369	16:08	16:34	<sup>3</sup> He	10	5M	12		✓
2370	16:39	16:42	<sup>3</sup> He	10	<del>555K</del>	12	BB MC thresh	✓
2371	16:45	16:49	<sup>3</sup> He	10	623K	12	"	
2372	16:52	16:55	<sup>3</sup> He	10	532K	12	"	
2373	17:00	17:25	<sup>3</sup> He	10	5M	11	prod	✓
2374	17:26	17:59	<sup>3</sup> He	10	5M	12		✓
2375	18:00	18:31	<sup>3</sup> He	10	5M	11		✓
2376	18:32	19:01	<sup>3</sup> He	10		11	Rock 5 problem end r fuelod	✓
2377	19:05	19:30	<sup>3</sup> He	10	5M	12		✓
2378	19:03	19:59	<sup>3</sup> He	10	5M	12		✓
2379	20:50	21:25	<sup>3</sup> He	10	5M	11		✓

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Date: 4/17	Author: M. Magiane
Beam Energy: GeV	Using Pol $^3\text{He}$ Cell: YON, Long, Tran, or Vertical
LHRS	BigBite
Momentum (GeV/c): 2.225	Polarity: "-" Current (A):
Angle: 16	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?
21232	15:40	16:28	$^3\text{He}$	10 $\mu\text{A}$	4.1M	17		✓
21273	16:07	16:34	$^3\text{He}$	10	4.1M	17		✓
21274	16:38	16:42	$^3\text{He}$	10	452K	16		✓
21275	16:45	16:49	$^3\text{He}$	10	508K	17		
21276	16:52	16:55	$^3\text{He}$	10	434K	17		
21277	16:59	17:25	$^3\text{He}$	10	4.08M	16		✓
21278	16:26	17:59	$^3\text{He}$	10	4.09M	17		✓
21279	17:59	18:31	$^3\text{He}$	10	4.09M	16		✓
21280	18:32	19:01	$^3\text{He}$	10		17	part OK, left problem	✓
21281	19:04	19:30	$^3\text{He}$	10	4.08	16		✓
21282	19:31	19:59	$^3\text{He}$	10	4.37M	16		✓
21283	20:00	20:26	$^3\text{He}$	10	4.07	17		✓

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More Comments:

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Date: 5/17/09	Author: K. Wang
Beam Energy: 2.425 GeV	Using Pol <sup>3</sup> He Cell: Y/N, Long, Tran, or Vertical
RHRS	BigBite
Momentum (GeV/c): 2.3	Polarity: "-" Current (A): Polarity: Positive
Angle: 14.5	Sieve Plate: IN or OUT? Angle:

Run Number	Start Time	Stop Time	Target	Beam (μA)	Number of Events	Dead Time	Comments	Replay Ok?
2380	20:42	21:08	<sup>3</sup> He	10	5M	11	Horex started	✓
2381	21:10	21:36	<sup>3</sup> He	10	5m	13		✓
2382	21:38	22:05	<sup>3</sup> He	10	5m	12		✓
2383	22:06	22:33	<sup>3</sup> He	10	5m	11		✓
2384	22:34	23:01	<sup>3</sup> He	10	5m	11		✓
2385	23:02	23:27	<sup>3</sup> He	10	5M	11		✓
2386	23:28	23:54	<sup>3</sup> He	10	5M	11		✓
2387	23:56	0:23	<sup>3</sup> He	10	5M	11		✓
2388	00:25	00:52	"	"	5M	11		✓
2389	01:53	01:20	"	"	5M	12		✓
2390	1:24	1:28	"	"	500k	12	BB DC threshold 7.5V	
2391	1:30	1:33	"	"	500k	11	8.0V	

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Date: 5/17/09	Author: K. Wang
Beam Energy: 2.425 GeV	Using Pol <sup>3</sup> He Cell: Y/N, Long, Tran, or Vertical
RHRS	BigBite
Momentum (GeV/c): 2.225	Polarity: "-" Current (A): 5/5.5
Angle: 10 Sieve Plate: IN or OUT?	Polarity: Positive Angle: -75

Run Number	Start Time	Stop Time	Target	Beam (μA)	Number of Events	Dead Time	Comments	Replay Ok?
21284	20:42	21:09	<sup>3</sup> He	10	4.09M	16		✓
21285	21:10	21:37	<sup>3</sup> He	10	4.08M	17		✓
21286	21:37	22:05	<sup>3</sup> He	10	4.08M	16		✓
21287	22:06	22:33	<sup>3</sup> He	10	4.08M	16		✓
21288	22:33	23:01	<sup>3</sup> He	10	4.08M	16		✓
21289	23:01	23:27	<sup>3</sup> He	10	4.08M	16		✓
21290	23:28	23:55	<sup>3</sup> He	10	4.07M	17		✓
21291	23:55	00:23	<sup>3</sup> He	10	4.08M	16		✓
21292	00:25	0:53	"	"	4.08M	17		✓
21293	00:53	01:20	"	"	4.08	16		✓
21294	1:24	1:28	"	"	414K	17		
21295	1:30	1:33	"	"	418K	16		

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<b>Date:</b>		<b>Author:</b>	
<b>Beam Energy:</b>		GeV	<b>Using Pol <math>^3\text{He}</math> Cell:</b> Y/N, Long, Tran, or Vertical
<b>LHRS</b>		<b>BigBite</b>	
Momentum (GeV/c):	Polarity: "-"	Current (A):	Polarity: Positive
Angle:	Sieve Plate: IN or OUT ?	Angle:	

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
2392	1:35	1:38	$^3\text{He}$	10	510K	12	BB DC threshold: 8.5V	
2393	1:40	1:44	"	"	511K	11	9.0V	
2394	1:46	1:49	"	"	506K	11	9.5V	
2395	1:51	1:54	"	"	509K	12	10.0V	
2396	1:57	2:01	"	"	508K	10	6.75V	
2397	2:03	2:07	"	"	509K	11	6.25V	
2398	2:10	2:14	"	"	505K	12	5.75V	
2399	2:17	2:44	"	"	5M	11	Balk to production 5.5V	✓
2400						11	Junk	✗
2401	2:55	3:23	"	"	5M	12		✓
2402	3:33	3:51	"	"	5M	12		✓
2403	3:51	4:18	"	"	5M	12		✓

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

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
20296	1:35	1:38	$^3\text{He}$	10	415K	17		
20297	1:40	1:44	"	"	417K	16		
20298	1:46	1:49	"	"	411K	16		
<del>20299</del> 20299	1:51	1:54	"	"	414K	17		
20300	1:57	2:01	"	"	413K	16		
20301	2:03	2:07	"	"	415K	16		
20302	2:10	2:14	"	"	410K	17		
20303	2:17	2:44	"	"	4.0M	16		✓
20304							does not count.	✗
20307	02:35	3:23	"	"	4.09M	17		✓
20308	3:23	3:51	"	"	4.08M	17		✓
20309	3:51	4:18	"	"	4.09M	16		✓

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More Comments:

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Date: May 18, 2009	Author: W. Luo
Beam Energy: 2.427 GeV	Using Pol $^3\text{He}$ Cell: Y/N, Long, Tran, or Vertical
LHRS	BigBite
Momentum (GeV/c): 2.277	Polarity: "-" Current (A): 5/55
Angle: 14.5	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?
2404	4:21	4:48	$^3\text{He}$	10	5M	12		✓
2405	4:49	5:15	"	"	5M	12		✓
2406	5:15	5:44	"	"	5M	12		✓
2407	5:44	6:10	"	"	5M	12		✓
2408	6:11	6:42	"	"	5M	11		✓
2409	6:42	7:11	"	"	5M	13		✓
2410	7:12	7:37	"	"	5M	11		✓
2411	7:38		"	"	5M	12		✓
2412	8:40		$\text{D}_2$	7 $\mu\text{A}$ *	5M	6	115 Psia ref. cell	
2413	9:19	10:00	$\text{D}_2$	10 $\mu\text{A}$	5M	6	same	

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### More Comments:

\* During run 2412 we slowly increase beam current to 10  $\mu\text{A}$

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Date:	May 18, 2007	Author:	W. Luo
Beam Energy:	2.427 GeV	Using Pol <sup>3</sup> He Cell:	<u>Y</u> N, <u>Long</u> , Tran, or Vertical
RHRS		BigBite	
Momentum (GeV/c):	2.225	Polarity: "-"	Current (A): 515.5
Angle:	Sieve Plate: IN or OUT ?	Angle:	- 75

Run Number	Start Time	Stop Time	Target	Beam (μA)	Number of Events	Dead Time	Comments	Replay Ok?
21310	4:21	4:48	<sup>3</sup> He	10	4.09M	17		✓
21311	4:48	5:15	"	"	4.09M	16		✓
21312	5:15	5:44	"	"	4.06M	16		✓
21313	5:44	6:10	"	"	4.09M	16		✓
21314	6:10	6:42	"	"	4.10M	16		✓
21315	6:42	7:11	"	"	4.09M	16		✓
21316	7:11	7:37	"	"	4.08M	16		✓
21317	7:38		"	"	4.09	16		✓
21318	8:40		D <sub>2</sub>	7 μA*	3.7M	13	115 psia D <sub>2</sub> ref. cell	✓
21319	9:19	10:00	D <sub>2</sub>	10 μA	3.7M	13	same	

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More Comments:

\* During 21318, increase  $I_{beam}$  to 10 μA

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Date:	May 18, 2009	Author:	R. Michaels
Beam Energy:	2.427 GeV	Using Pol $^3\text{He}$ Cell:	Y/N, <u>Long</u> , Tran, or Vertical
LHRS		BigBite	
Momentum (GeV/c):	2.277	Polarity: <u>"-"</u>	Current (A): 515.5 * Polarity: Positive
Angle:	14.5	Sieve Plate: IN or <u>OUT</u> ?	Angle: 75

Run Number	Start Time	Stop Time	Target	Beam ( $\mu\text{A}$ )	Number of Events	Dead Time	Comments	Replay Ok?
2414	10:02	10:44	empty cell	10		4	Empty target cell	✓
2415	10:50		$\text{N}_2$	10	very short		35 <del>psi</del> psig $\text{N}_2$	
2416	10:52		$\text{N}_2$	10	5M		35 psig $\text{N}_2$ Adjusted PS factors	✓
2417	11:30	12:10	$\text{N}_2$	10	5M	5	same	✓
2418	12:16		optics	5	5M	12	Multifoil carbon (optics)	✓
2419	12:49		$^3\text{He}$	10	5M	12	Back to $^3\text{He}$ production	✓
2420	13:25		$^3\text{He}$	10	5M		move halfwave plate out	✓
2421	13:51	14:22	$^3\text{He}$	10	5M	11		✓
2422	14:23	14:48	$^3\text{He}$	10	5M			✓
2423	16:50		$^3\text{He}$	10	5M			✓
2424	15:17		$^3\text{He}$	10	5M			✓
2425	15:48	<del>16:14</del>	$^3\text{He}$	10	5M	11		✓

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## More Comments:

\* Set point 518 (= "output set point")  
 but in "box controls" its zero.  
 10:15: So, we re-entered 518 in dialog box.