

## Downtime for Run 2002-2

Fill #	Start	End	Length	Loss Reason	DIN #	Audit	Start	End	User Length	System Length	Cause	Type	Description
					104224		05/29/02 08:00	05/29/02 08:08	0.13	0.13	OPS	Inhibits Beam to User	corrector problem, poor inj. eff. [OPS]
1	05/29/02 08:08	05/30/02 08:46	24.63	S11B:Q2 supply trip [ES]	104225		05/30/02 08:46	05/30/02 09:56	1.17	1.17	ES-PS	Store Lost	S11B:Q2 trip, investigation, fixed problem with DAC card [ES]
4	05/30/02 09:56	05/31/02 19:46	33.83	RF2 trip [RF]	N/A		05/31/02 19:46	05/31/02 20:02	0.27	0.27	RF	Store Lost	RF-2 Anode OI tripped [RF]
7	05/31/02 20:02	06/01/02 19:37	23.58	iocFB reboot [CTL]	104226		06/01/02 19:37	06/01/02 19:51	0.23	0.23	CTL	Store Lost	BPLD trip after grabbing correctors for a RTFB ioc reboot [CTL]
9	06/01/02 19:51	06/02/02 07:46	11.92	RF2 LLRF trip [RF]	104227		06/02/02 07:46	06/02/02 08:01	0.25	0.25	RF	Store Lost	RF-2 tripped on anode OI adj. [RF]
10	06/02/02 08:01	06/02/02 19:47	11.77	RF2 trip [RF]	104228		06/02/02 19:47	06/02/02 20:04	0.28	0.28	RF	Store Lost	RF-2 tripped on anode OI adj. [RF]
11	06/02/02 20:04	06/03/02 07:47	11.72	RF2 trip [RF]	104229		06/03/02 07:47	06/03/02 08:06	0.32	0.32	RF	Store Lost	RF-2 tripped on anode OI adj. [RF]
12	06/03/02 08:06	06/03/02 19:44	11.63	RF2 trip [RF]	104230		06/03/02 19:44	06/03/02 20:00	0.27	0.27	RF	Store Lost	RF-2 tripped on anode OI adj. [RF]
13	06/03/02 20:00	06/04/02 00:00	4.00	End of period			06/04/02 00:00	06/04/02 00:00	0.00	0.00	Scheduled	Int. Dump	
			<b>133.08</b>						<b>2.92</b>	<b>2.92</b>			
14	06/04/02 16:00	06/06/02 18:15	50.25	RF4 trip [RF]	104238		06/06/02 18:15	06/06/02 18:30	0.25	0.25	RF	Store Lost	RF 4 circulator load arc trip [RF]
15	06/06/02 18:30	06/07/02 11:44	17.23	S11 absorber water [ME]			06/07/02 11:44	06/07/02 12:21	0.62				
					104239		06/07/02 11:44	06/07/02 12:09		0.42	ME	Store Lost	S11 absorber water fault and replacement of Love controller EA3
					104239		06/07/02 11:52	06/07/02 12:12		0.33	CTL	Inhibits Beam to User	Lost communications w/iocilaser prevents injection script from starting [CTL]
					104239		06/07/02 12:12	06/07/02 12:21		0.15	ME	Inhibits Beam to User	Continued recovery from beam loss [ME]
16	06/07/02 12:21	06/10/02 08:00	67.65	Int Dump: End of Period			06/10/02 08:00	06/10/02 08:00	0.00	0.00	Scheduled	Int. Dump	
			<b>135.13</b>						<b>0.87</b>	<b>1.15</b>			
17	06/12/02 08:00	06/13/02 16:47	32.78	S14A:Q5 PS [PS]			06/13/02 16:47	06/13/02 18:44	1.95				
					104245		06/13/02 16:47	06/13/02 17:37		0.83	ES-PS	Store Lost	S14A:Q5 PS trip and converter swapout [ES]
					104245		06/13/02 17:37	06/13/02 18:04		0.45	CTL	Inhibits Beam to User	Injection halted by IOCMCR1 communication problem [CTL]
					104245		06/13/02 18:04	06/13/02 18:35		0.52	OPS	Inhibits Beam to User	Injector tuneup & injection [OPS]
					104245		06/13/02 18:35	06/13/02 18:44		0.15	ES-PS	Inhibits Beam to User	Continuation of the original downtime [ES]
18	06/13/02 18:44	06/17/02 16:07	93.38	SR RF-4 ModAn O.I. Trip [RF]	104247		06/17/02 16:07	06/17/02 16:27	0.33	0.33	RF	Store Lost	SR RF-4 tripped on Anode O.I. [RF]
20	06/17/02 16:27	06/18/02 08:00	15.55	End of period			06/18/02 08:00	06/18/02 08:00	0.00	0.00	Scheduled	Int. Dump	
			<b>141.72</b>						<b>2.28</b>	<b>2.28</b>			
					104250		06/18/02 16:00	06/18/02 16:28	0.47	0.47	Other	Inhibits Beam to User	12ID EPS vacuum problem.
21	06/18/02 16:28	06/18/02 18:07	1.65	S38Cav. Vac trip [RF]	104249		06/18/02 18:07	06/18/02 18:19	0.20	0.20	RF	Store Lost	RF4 LLRF trip. On SL1 cavity 1&2 Ion Ga Flt.(RF)
22	06/18/02 18:19	06/19/02 01:46	7.45	Gespac supply fail [ES]	104252		06/19/02 01:46	06/19/02 05:55	4.15				
					104252		06/19/02 01:46	06/19/02 02:13		0.45	OPS	Store Lost	iocs13vp reboot [OPS]
					104252		06/19/02 02:13	06/19/02 05:55		3.70	ES-PS	Inhibits Beam to User	Gespac repair, refill [ES]
23	06/19/02 05:55	06/20/02 06:55	25.00	S24BQ5 failure [ES]	104258		06/20/02 06:55	06/20/02 07:19	0.40	0.40	ES-PS	Store Lost	S24:BQ5 tripped and reset
24	06/20/02 07:19	06/21/02 02:54	19.58	S39VV02 trip [CTL]	104260		06/21/02 02:54	06/21/02 03:06	0.20	0.20	CTL	Store Lost	S39 VV02 closed [CTL]
25	06/21/02 03:06	06/23/02 15:27	60.35	Zone F Rad Mon trip [OTH]	104263		06/23/02 15:27	06/23/02 15:44	0.28	0.28	Other	Store Lost	Zone F Rad Mon trip [OTH]
26	06/23/02 15:44	06/24/02 08:00	16.27	Int Dump: End of Period			06/24/02 08:00	06/24/02 08:00	0.00	0.00	Scheduled	Int. Dump	
			<b>130.32</b>						<b>5.70</b>	<b>5.70</b>			
					104269		06/26/02 08:00	06/26/02 08:34	0.57	0.57	Other	Inhibits Beam to User	Longitudinal coupled bunch instability [Other]
28	06/26/02 08:34	06/26/02 15:17	6.72	Fast instability [Other]	104270		06/26/02 15:17	06/26/02 15:34	0.28	0.28	Other	Store Lost	Longitudinal coupled bunch instability [Other]
29	06/26/02 15:34	06/26/02 23:03	7.48	S5AS3 fault [ES]	104271		06/26/02 23:03	06/27/02 00:34	1.52	1.52	ES-PS	Store Lost	S5AS3 fault and swapout [ES]
30	06/27/02 00:34	06/28/02 05:33	28.98	Booster ACIS event [ES]			06/28/02 05:33	06/28/02 10:11	4.63				
					104272		06/28/02 05:33	06/28/02 09:44		4.18	ES-INTLK	Store Lost	Booster ACIS event & replacement of fiber connection for inj. Door rack.
					104273		06/28/02 09:44	06/28/02 10:11		0.45	Unidentified	Inhibits Beam to User	Beam lost during fills due to unknown instability [Unidentified]
31	06/28/02 10:11	07/04/02 08:00	141.82	Int. Dump: End of period			07/04/02 08:00	07/04/02 08:00			Scheduled	Int. Dump	
			<b>185.00</b>						<b>7.00</b>	<b>7.00</b>			
32	07/05/02 08:00	07/08/02 08:00	72.00	Int. Dump: End of period			07/08/02 08:00	07/08/02 08:00			Scheduled	Int. Dump	
			<b>72.00</b>						<b>0.00</b>	<b>0.00</b>			
							07/10/02 08:00	07/10/02 08:02	0.03	0.03	OPS	Inhibits Beam to User	Partial beam loss during fill-on-fill [OPS]
34	07/10/02 08:02	07/13/02 01:53	65.85	VacGate Valve close[CTL]	104281		07/13/02 01:53	07/13/02 02:04	0.18	0.18	CTL	Store Lost	Vacuum Valve VV-03-VV01 closed [CTL]
40	07/13/02 02:04	07/15/02 15:45	61.68	12ID Rad Mon failure [OTH]	104283		07/15/02 15:45	07/15/02 16:37	0.87	0.87	Other	Store Lost	12ID Rad Monitor Processor Failure [OTH]
46	07/15/02 16:37	07/16/02 08:00	15.38	Int. Dump: End of Period			07/16/02 08:00	07/16/02 08:00	0.00	0.00	Scheduled	Int. Dump	
			<b>142.92</b>						<b>1.08</b>	<b>1.08</b>			

## Downtime for Run 2002-2

Fill #	Start	End	Length	Loss Reason	DIN #	Audit	Start	End	User Length	System Length	Cause	Type	Description
47	07/16/02 16:00	07/22/02 08:00	136.00	Int. Dump: End of Period			07/22/02 08:00	07/22/02 08:00	0.00	0.00	Scheduled	Int. Dump	
			<b>136.00</b>						<b>0.00</b>	<b>0.00</b>			
48	07/24/02 08:00	07/24/02 21:38	13.63	Power Loss [OTH]	104289		07/24/02 21:38	07/25/02 09:58	12.33	12.33	Other	Store Lost	Power loss and recovery [OTH]
49	07/25/02 09:58	07/26/02 19:15	33.28	RF-4 HVPS trip [RF]	104291		07/26/02 19:15	07/26/02 19:42	0.45	0.45	RF	Store Lost	RF-4 HVPS trip; refill [RF]
50	07/26/02 19:42	07/28/02 23:15	51.55	RF-4 HVPS trip [RF]	104292		07/28/02 23:15	07/28/02 23:28	0.22	0.22	RF	Store Lost	RF-4 HVPS trip; refill [RF]
51	07/28/02 23:28	07/30/02 00:00	24.53	Int. Dump: End of Period			07/30/02 00:00	07/30/02 00:00	0.00	0.00	Scheduled	Int. Dump	
			<b>123.00</b>						<b>13.00</b>	<b>13.00</b>			
52	07/30/02 16:00	07/31/02 13:09	21.15	RF2 h2o flow flt [ME]	104296		07/31/02 13:09	07/31/02 13:59	0.83	0.83	ME	Store Lost	Sector 36, Hybrid #1 Flow problem, adjusted collector balancing valve [ME]
53	07/31/02 13:59	08/01/02 09:49	19.83	Unknown beam motion [UKN]	104298		08/01/02 09:49	08/01/02 10:04	0.25	0.25	Unidentified	Store Lost	Unknown beam loss [Unidentified]
54	08/01/02 10:04	08/05/02 08:00	93.93	Int. Dump: End of Period			08/05/02 08:00	08/05/02 08:00	0.00	0.00	Scheduled	Int. Dump	
			<b>134.92</b>						<b>1.08</b>	<b>1.08</b>			
55	08/07/02 08:00	08/08/02 22:24	38.40	Vac valve closure [CTL]	104303		08/08/02 22:24	08/08/02 22:46	0.37	0.37	CTL	Store Lost	Single vacuum valve closure [CTL]
56	08/08/02 22:46	08/10/02 00:45	25.98	Ukn beam loss [UKN]	104305		08/10/02 00:45	08/10/02 00:58	0.22	0.22	Unidentified	Store Lost	Unknown beam motion [Unidentified]
57	08/10/02 00:58	08/13/02 00:00	71.03	Int. Dump: End of Period			08/13/02 00:00	08/13/02 00:00	0.00	0.00	Scheduled	Int. Dump	
			<b>135.42</b>						<b>0.58</b>	<b>0.58</b>			
59	08/13/02 16:00	08/14/02 23:08	31.13	Power breaker trip [ES]	104309		08/14/02 23:08	08/15/02 01:24	2.27	2.27	ES-PS	Store Lost	AC breaker TDP-R4-9 trip [ES]
60	08/15/02 01:24	08/15/02 04:01	2.62	S13B:V3 problem [ES]			08/15/02 04:01	08/15/02 04:17	0.27				
					104310		08/15/02 04:01	08/15/02 04:02		0.02	OPS	Store Lost	Attempt was made to clear what appeared to be the S13B:V3:PS readback error [OPS]
					104310		08/15/02 04:02	08/15/02 04:17		0.25	ES-PS	Inhibits Beam to User	Recovery from beam loss [ES]
61	08/15/02 04:17	08/15/02 06:53	2.60	Rad Mon trip [HP]	104312		08/15/02 06:53	08/15/02 07:14	0.35	0.35	Other	Store Lost	Gamma probe in SR Zone F [HP]
62	08/15/02 07:14	08/16/02 00:50	17.60	S8B:Q2 failure [ES]	104313		08/16/02 00:50	08/16/02 01:18	0.47	0.47	ES-PS	Store Lost	S8B:Q2 fault [ES]
63	08/16/02 01:18	08/16/02 18:30	17.20	S8B:Q2 failure [ES]	104314		08/16/02 18:30	08/16/02 19:38	1.13	1.13	ES-PS	Store Lost	S8B:Q2 tripped on Mag OT/Clamp fault; convertor swapout [ES]
64	08/16/02 19:38	08/18/02 10:48	39.17	Vert Motion 11ID [UNK]	104319		08/18/02 10:48	08/18/02 11:14	0.43	0.43	Unidentified	Store Lost	Unknown beam motion [Unidentified]
66	08/18/02 11:14	08/19/02 08:00	20.77	Int. Dump: End of Period			08/19/02 08:00	08/19/02 08:00	0.00	0.00	Scheduled	Int. Dump	
			<b>131.08</b>						<b>4.92</b>	<b>4.92</b>			
68	08/21/02 08:00	08/21/02 15:20	7.33	Zone F Rad Mon. trip [OTH]	104322		08/21/02 15:20	08/21/02 15:44	0.40	0.40	Other	Store Lost	Zone F Rad Mon. trip [OTH]
69	08/21/02 15:44	08/22/02 11:41	19.95	S32 Water trip [OTH]	104323		08/22/02 11:41	08/22/02 13:02	1.35	1.35	PFS	Store Lost	Motor Control failed when AHU turned on, tripping pumps off [PFS].
70	08/22/02 13:02	08/25/02 05:45	64.72	S23vpioc lost comm.[CTL]	104324		08/25/02 05:45	08/25/02 06:15	0.50	0.50	CTL	Store Lost	Bad transceiver card in IOCS23VP caused loss of comm. [CTL]
71	08/25/02 06:15	08/27/02 00:00	41.75	Int Dump: End of Period			08/27/02 00:00	08/27/02 00:00	0.00	0.00	Scheduled	Int. Dump	
			<b>133.75</b>						<b>2.25</b>	<b>2.25</b>			
73	08/27/02 16:00	08/28/02 11:20	19.33	RF3Kly vac. trip [RF]			08/28/02 11:20	08/28/02 12:13	0.88				
					104329		08/28/02 11:20	08/28/02 12:00		0.67	RF	Store Lost	SR RF3 HVPS tripped on Ion Over Current (10uA) [RF]
					104329		08/28/02 12:00	08/28/02 12:08		0.13	DIAG	Inhibits Beam to User	6ID BPLD trip at top of fill [DIAG]
					104329		08/28/02 12:08	08/28/02 12:13		0.08	RF	Inhibits Beam to User	Continuation of the original downtime [RF]
76	08/28/02 12:13	08/29/02 00:04	11.85	Ukn Rad.Mon. Trip [OTHER]			08/29/02 00:04	08/29/02 01:33	1.48				
					104330		08/29/02 00:04	08/29/02 00:19		0.25	Other	Store Lost	Radiation Monitor Trip [Other]
					104330		08/29/02 00:17	08/29/02 01:00		0.72	OAG	Inhibits Beam to User	Booster recovery problems [OAG]
					104330		08/29/02 01:00	08/29/02 01:18		0.30	Diag	Inhibits Beam to User	6ID BPLD trips during fills [Diag]
					104330		08/29/02 01:18	08/29/02 01:33		0.25	Other	Inhibits Beam to User	Continuation of the original downtime [Other]
78	08/29/02 01:33	08/29/02 07:42	6.15	6ID BPLD trip [DIAG]	104333		08/29/02 07:42	08/29/02 07:57	0.25	0.25	Diag	Store Lost	6ID BPLD trip during fill [Diag]
79	08/29/02 07:57	08/30/02 14:23	30.43	8BM PSS trip [ES]			08/30/02 14:23	08/30/02 16:19	1.93				
					104334		08/30/02 14:23	08/30/02 14:23		0.00	ES-INTLK	Store Lost	8BM PSS trip -- failed fuse -- drop to Controlled Access[ES]
					104334		08/30/02 14:23	08/30/02 14:45		0.37	OPS	Inhibits Beam to User	Investigation of drop to Controlled Access Mode [OPS]
					104334		08/30/02 14:45	08/30/02 15:19		0.57	ES-INTLK	Inhibits Beam to User	Continuation of original downtime [ES]
					104334		08/30/02 15:19	08/30/02 16:08		0.82	ES-PS	Inhibits Beam to User	S32B:Q2 DAC card replacement [ES]
					104334		08/30/02 16:08	08/30/02 16:19		0.18	ES-INTLK	Inhibits Beam to User	Continuation of original downtime [ES]
82	08/30/02 16:19	08/31/02 04:12	11.88	17ID rad.Mon.fail[OTHER]	104335		08/31/02 04:12	08/31/02 06:42	2.50	2.50	Other	Store Lost	17-ID Rad monitor failure, replacement and validation [HP]
83	08/31/02 06:42	08/31/02 08:38	1.93	S17FBIOC reboot [CTL]	104336		08/31/02 08:38	08/31/02 09:04	0.43	0.43	CTL	Store Lost	Power cycled S17FBIOC when remote reboot failed [CTL]
84	08/31/02 09:04	09/02/02 19:45	58.68	6ID BPLD trip [DIAG]	104337		09/02/02 19:45	09/02/02 19:59	0.23	0.23	Diag	Store Lost	6ID BPLD trip during fill [Diag]
89	09/02/02 19:59	09/03/02 07:44	11.75	6ID BPLD trip [DIAG]	104338		09/03/02 07:44	09/03/02 08:00	0.27	0.27	Diag	Store Lost	6ID BPLD trip during fill [Diag]
90	09/03/02 08:00	09/04/02 00:00	16.00	Int. Dump: End of Period			09/04/02 00:00	09/04/02 00:00	0.00	0.00	Scheduled	Int. Dump	

## Downtime for Run 2002-2

Fill #	Start	End	Length	Loss □ Reason	DIN #	Audit	Start	End	User □ Length	System □ Length	Cause	Type	Description
			168.02						7.98	8.02			