

Listing of Statistics for Run3-2008 (Created Mon Jan 19 13:11:57 CST 2009)

Total Amount of User Time in this interval 1648.95 Hours

User periods in this interval

```

-----
10/01/2008 08:00 To 10/07/2008 08:00 144.00 Hours, Delivered Beam:
144.00 Hours, 0 Fault(s), 144.00 MTBF, 100.00% of Sched. Time
10/08/2008 08:00 To 10/14/2008 08:00 144.00 Hours, Delivered Beam:
144.00 Hours, 0 Fault(s), 144.00 MTBF, 100.00% of Sched. Time
10/15/2008 08:00 To 10/20/2008 08:00 120.00 Hours, Delivered Beam:
116.88 Hours, 3 Fault(s), 38.96 MTBF, 97.40% of Sched. Time
10/22/2008 08:00 To 10/28/2008 08:00 144.00 Hours, Delivered Beam:
144.00 Hours, 0 Fault(s), 144.00 MTBF, 100.00% of Sched. Time
10/29/2008 08:00 To 11/03/2008 08:00 121.00 Hours, Delivered Beam:
117.59 Hours, 2 Fault(s), 58.79 MTBF, 97.18% of Sched. Time
11/05/2008 08:00 To 11/11/2008 08:00 144.00 Hours, Delivered Beam:
135.07 Hours, 6 Fault(s), 22.51 MTBF, 93.80% of Sched. Time
11/12/2008 08:00 To 11/18/2008 08:00 144.00 Hours, Delivered Beam:
141.88 Hours, 2 Fault(s), 70.94 MTBF, 98.53% of Sched. Time
11/19/2008 08:00 To 11/26/2008 24:00 184.00 Hours, Delivered Beam:
184.00 Hours, 0 Fault(s), 184.00 MTBF, 100.00% of Sched. Time
11/28/2008 08:00 To 12/02/2008 08:00 96.00 Hours, Delivered Beam:
95.19 Hours, 1 Fault(s), 95.19 MTBF, 99.16% of Sched. Time
12/03/2008 08:00 To 12/09/2008 08:00 144.00 Hours, Delivered Beam:
144.00 Hours, 0 Fault(s), 144.00 MTBF, 100.00% of Sched. Time
12/10/2008 08:00 To 12/16/2008 08:00 144.00 Hours, Delivered Beam:
138.84 Hours, 2 Fault(s), 69.42 MTBF, 96.41% of Sched. Time
12/17/2008 08:00 To 12/22/2008 08:00 120.00 Hours, Delivered Beam:
99.87 Hours, 2 Fault(s), 49.94 MTBF, 83.23% of Sched. Time

```

```

Delivered Beam                1605.29 Hours
Percentage of Scheduled Time   97.35 %
Downtime During Period         43.65 Hours
Percentage of scheduled time SR current > 10 ma 97.57 %
Average Delivered Current During This Period    99.98 mA
Total integrated Current During This Period     160.49 A-hr

```

```

Mean Fill Duration in Period      84.49 Hours
Mean Fill Duration from Poisson Fit 99.96 Hours
Mean Time Between Faults (MTBF)   89.18 Hours
Faults per Day of Delivered Beam   0.27
Total Number of Faults             18
Scheduled Topup Time               1264.00 Hours

```

```

Length      Downtime is associated with the end of a fill.
Valid fills Beginning in this Time Interval|      Reason for
| of      The first fill of a period will have any
Fill# Start      End      Duration |      Fill Termination
| Downtime      downtime before the fill on the line above.
| (min: 1.0) |
|
-----
-----

```

| 0.00
1 10/01 08:00 To 10/07 07:59 144.00 | Int Dump: End of Period
| 0.00

| 0.00
2 10/08 08:00 To 10/14 07:59 144.00 | Int Dump: End of Period
| 0.00

| 0.00
3 10/15 08:00 To 10/15 13:37 5.63 | Bldg.450 controller[OTH]
| 1.04 Controller reset&temps returned to normal, refilled
4 10/15 14:40 To 10/19 15:38 96.97 | Power Supply trip [PS]
| 1.80 Power supply swap, refilled
5 10/19 17:26 To 10/20 06:02 12.61 | RF4 Power Mon. Trip [RF]
| 0.27 Reset trip, refilled
6 10/20 06:19 To 10/20 07:59 1.68 | Int Dump: End of Period
| 0.00

| 0.00
7 10/22 08:00 To 10/28 07:59 144.00 | Int Dump: End of Period
| 0.00

| 0.00
8 10/29 08:00 To 10/29 20:20 12.33 | Quadrupole PS trip [PS]
| 1.56 Swapped the P.S., refilled
9 10/29 21:53 To 10/30 09:24 11.52 | Bldg.450 valve fail[OTH]
| 1.85 Bypassed degassifier, recovered systems, refilled
10 10/30 11:15 To 11/03 07:59 93.74 | Int Dump: End of Period
| 0.00

| 0.00
11 11/05 08:00 To 11/05 21:35 13.59 | S2 Sextupole problem[PS]
| 2.46 Swapped out two power supplies, refilled ring
12 11/06 00:02 To 11/06 07:56 7.89 | Rad Mon lost power[OTH]
| 1.00 Installed temp rad monitor, refilled
13 11/06 08:56 To 11/06 16:38 7.70 | 2ID EPS & PSS trips[SI]
| 0.87 2ID taken offline, trips reset, refilled ring
14 11/06 17:30 To 11/08 15:21 45.85 | DCCT MPS fault [DIAG]
| 0.79 Investigation, refill
15 11/08 16:08 To 11/09 19:17 27.15 | S21 Vac Valve fault[CTL]
| 0.37 Investigation, refill
16 11/09 19:39 To 11/09 22:14 2.57 | S21VacVlv MPS fault[CTL]
| 3.44 Replaced latch card, validated, refilled
17 11/10 01:40 To 11/11 07:59 30.33 | Int Dump: End of Period
| 0.00

```

-----
-----
| 0.00
# 18 11/12 08:00 To 11/13 20:16 36.27 | S2 Quadrupole failed[PS]
| 1.11 Replaced P.S., conditioned & refilled
# 19 11/13 21:23 To 11/18 04:25 103.04 | 23ID:P2 BPM Flow [MOM]
| 1.00 Investigation, reset and refilled
# 20 11/18 05:25 To 11/18 07:59 2.57 | Int Dump: End of Period
| 0.00
-----

```

```

-----
-----
| 0.00
# 21 11/19 08:00 To 11/26 23:59 184.00 | Int Dump: End of Period
| 0.00
-----

```

```

-----
-----
| 0.00
# 22 11/28 08:00 To 11/30 12:09 52.16 | S34 Vac Vlv MPS flt[CTL]
| 0.81 Investigation, refill
# 23 11/30 12:58 To 12/02 07:59 43.03 | Int Dump: End of Period
| 0.00
-----

```

```

-----
-----
| 0.00
# 24 12/03 08:00 To 12/09 07:59 144.00 | Int Dump: End of Period
| 0.00
-----

```

```

-----
-----
| 0.00
# 25 12/10 08:00 To 12/13 08:10 72.16 | S33 FE-EPS Flow Flt [SI]
| 2.29 Repair, replaced S1 sextupole twice
# 26 12/13 10:27 To 12/13 21:53 11.43 | S1 Sextupole Trip [PS]
| 2.86 Investigation, repair
# 27 12/14 00:45 To 12/16 07:59 55.24 | Int Dump: End of Period
| 0.00
-----

```

```

-----
-----
| 0.00
# 28 12/17 08:00 To 12/18 10:41 26.69 | Transformer fault [FMS]
| 5.44 RF3/5 waveguide switch, P.S. faults
# 29 12/18 16:08 To 12/18 21:11 5.05 | Booster Hybrid load [RF]
| 14.68 Leak at hoses, load, & into kicker magnet
# 30 12/19 11:52 To 12/22 07:59 68.13 | Starting Supplemental
| 0.00
-----

```

Top-Up Mode Statistics

Target Current Range 2.0, Minimum Injector Downtime = 8.0 minutes

Total

Current in Range during Scheduled Topup Time 97.89 %

Current in Range during Delivered Beam Time	99.07 %
Injector Availability	99.01 %

Period Beginning 10/01/2008 08:00

Current in Range	97.73 %
Injector Availability	97.69 %

Out of Range at: 10/01/2008 18:04:40 to 10/01/2008 21:20:40 :
196.00 minutes

Injector downtime: 10/01/2008 17:59:44 to 10/01/2008 21:19:36 :
199.87 minutes

Period Beginning 10/08/2008 08:00

Current in Range	100.00 %
Injector Availability	100.00 %

Period Beginning 10/15/2008 08:00

Current in Range	98.93 %
Injector Availability	98.79 %

Out of Range at: 10/20/2008 02:40:48 to 10/20/2008 03:07:20 :
26.53 minutes

Injector downtime: 10/20/2008 02:35:52 to 10/20/2008 03:07:16 :
31.40 minutes

Out of Range at: 10/20/2008 07:02:00 to 10/20/2008 07:50:16 :
48.27 minutes

Injector downtime: 10/20/2008 06:57:04 to 10/20/2008 07:50:12 :
53.13 minutes

Period Beginning 10/22/2008 08:00

Current in Range	99.96 %
Injector Availability	99.91 %

Out of Range at: 10/27/2008 04:43:28 to 10/27/2008 04:47:20 :
3.87 minutes

Injector downtime: 10/27/2008 04:35:28 to 10/27/2008 04:43:28 :
8.00 minutes (est)

Period Beginning 11/05/2008 08:00

Current in Range	99.94 %
Injector Availability	99.80 %

Out of Range at: 11/09/2008 14:27:20 to 11/09/2008 14:28:40 :
1.33 minutes

Injector downtime: 11/09/2008 14:19:20 to 11/09/2008 14:27:20 :
8.00 minutes (est)

Out of Range at: 11/09/2008 22:10:08 to 11/09/2008 22:14:00 :
3.87 minutes

Injector downtime: 11/09/2008 22:02:08 to 11/09/2008 22:10:08 :
8.00 minutes (est)

Period Beginning 11/12/2008 08:00

Current in Range	99.29 %
Injector Availability	99.22 %

Out of Range at: 11/12/2008 21:00:16 to 11/12/2008 21:48:08 :
47.87 minutes

Injector downtime: 11/12/2008 20:55:20 to 11/12/2008 21:46:56 :
51.60 minutes

Out of Range at: 11/18/2008 05:25:44 to 11/18/2008 05:38:24 :
12.67 minutes

Injector downtime: 11/18/2008 05:20:48 to 11/18/2008 05:35:12 :
14.40 minutes

Period Beginning 11/19/2008 08:00

Current in Range 99.55 %

Injector Availability 99.53 %

Out of Range at: 11/24/2008 10:42:32 to 11/24/2008 11:31:52 :
49.33 minutes

Injector downtime: 11/24/2008 10:37:36 to 11/24/2008 11:29:36 :
52.00 minutes

Period Beginning 11/28/2008 08:00

Current in Range 100.00 %

Injector Availability 100.00 %

Period Beginning 12/03/2008 08:00

Current in Range 96.43 %

Injector Availability 96.36 %

Out of Range at: 12/06/2008 08:24:48 to 12/06/2008 11:10:32 :
165.73 minutes

Injector downtime: 12/06/2008 08:19:52 to 12/06/2008 11:09:12 :
169.33 minutes

Out of Range at: 12/08/2008 10:42:32 to 12/08/2008 13:04:56 :
142.40 minutes

Injector downtime: 12/08/2008 10:37:36 to 12/08/2008 13:02:48 :
145.20 minutes