

Listing of Statistics for Run1-2021 (Created Thu Jun 17 11:02:40 CDT 2021)

Total Amount of User Time in this interval 1766.96 Hours

User periods in this interval

01/26/2021 08:00	To	02/01/2021 08:00	144.00	Hours,	Delivered Beam:	141.67	Hours,	1	Fault(s),	141.67	MTBF,	98.38%	of Sched. Time
02/02/2021 08:00	To	02/08/2021 08:00	144.00	Hours,	Delivered Beam:	144.00	Hours,	0	Fault(s),	144.00	MTBF,	100.00%	of Sched. Time
02/09/2021 08:00	To	02/15/2021 08:00	144.00	Hours,	Delivered Beam:	143.50	Hours,	1	Fault(s),	143.50	MTBF,	99.65%	of Sched. Time
02/16/2021 08:00	To	02/22/2021 08:00	144.00	Hours,	Delivered Beam:	131.92	Hours,	4	Fault(s),	32.98	MTBF,	91.61%	of Sched. Time
02/23/2021 08:00	To	03/01/2021 08:00	144.00	Hours,	Delivered Beam:	134.01	Hours,	2	Fault(s),	67.01	MTBF,	93.07%	of Sched. Time
03/02/2021 08:00	To	03/08/2021 08:00	144.00	Hours,	Delivered Beam:	142.42	Hours,	2	Fault(s),	71.21	MTBF,	98.90%	of Sched. Time
03/10/2021 08:00	To	03/15/2021 08:00	119.00	Hours,	Delivered Beam:	117.10	Hours,	2	Fault(s),	58.55	MTBF,	98.40%	of Sched. Time
03/16/2021 08:00	To	03/22/2021 08:00	144.00	Hours,	Delivered Beam:	141.41	Hours,	1	Fault(s),	141.41	MTBF,	98.20%	of Sched. Time
03/23/2021 08:00	To	03/29/2021 08:00	144.00	Hours,	Delivered Beam:	142.88	Hours,	1	Fault(s),	142.88	MTBF,	99.23%	of Sched. Time
03/30/2021 08:00	To	04/05/2021 08:00	144.00	Hours,	Delivered Beam:	138.01	Hours,	2	Fault(s),	69.00	MTBF,	95.84%	of Sched. Time
04/06/2021 08:00	To	04/12/2021 08:00	144.00	Hours,	Delivered Beam:	143.12	Hours,	1	Fault(s),	143.12	MTBF,	99.39%	of Sched. Time
04/13/2021 08:00	To	04/21/2021 24:00	208.00	Hours,	Delivered Beam:	207.03	Hours,	2	Fault(s),	103.51	MTBF,	99.53%	of Sched. Time

Delivered Beam 1727.08 Hours
 Percentage of Scheduled Time 97.74 %
 Downtime During Period 39.88 Hours
 Percentage of scheduled time SR current > 10 ma 98.26 %
 Average Delivered Current During This Period 100.25 mA
 Total integrated Current During This Period 173.14 A-hr

Mean Fill Duration in Period 86.35 Hours
 Mean Fill Duration from Poisson Fit 70.95 Hours
 Mean Time Between Faults (MTBF) 90.90 Hours
 Faults per Day of Delivered Beam 0.26
 Total Number of Faults 19
 Scheduled Topup Time 1479.00 Hours

Valid fills Beginning in this Time Interval	Reason for Fill Termination	Length of Downtime	Downtime is associated with the end of a fill. The first fill of a period will have any downtime before the fill on the line above.
Fill# Start End Duration (min: 1.0)			
# 1 01/26 08:00 To 01/28 13:43 53.72	ComEd power sag [OTH]	2.33	
# 2 01/28 16:02 To 02/01 07:59 87.95	Int Dump: End of Period	0.00	
# 3 02/02 08:00 To 02/08 07:59 144.00	Int Dump: End of Period	0.00	
# 4 02/09 08:00 To 02/10 12:16 28.27	RF4 anode OI trip [RF]	0.50	
# 5 02/10 12:46 To 02/15 07:59 115.23	Int Dump: End of Period	0.00	
# 6 02/16 08:00 To 02/16 13:26 5.44	ComEd power sag [OTH]	1.84	
# 7 02/16 15:16 To 02/18 09:46 42.50	ComEd power sag [OTH]	5.44	
# 8 02/18 15:13 To 02/20 23:41 56.47	S:24C:BM trip [PS]	2.60	
# 9 02/21 02:17 To 02/21 22:29 20.19	S:24C:BM trip [PS]	2.20	
# 10 02/22 00:41 To 02/22 07:59 7.31	Int Dump: End of Period	0.00	
# 11 02/23 08:00 To 02/27 01:26 89.44	S15A:H1 trip [PS]	4.99	
# 12 02/27 06:26 To 02/28 13:22 30.94	S36 waveguide air [RF]	4.99	S36 waveguide air trip fill <1 hr 3.89 RF 1.1 PS
# 14 02/28 18:21 To 03/01 07:59 13.64	Int Dump: End of Period	0.00	
# 15 03/02 08:00 To 03/02 20:51 12.85	RF4 LLRF trip [RF]	0.50	
# 16 03/02 21:21 To 03/03 13:43 16.37	S38B:S1 glitched [PS]	1.08	
# 17 03/03 14:48 To 03/08 07:59 113.19	Int Dump: End of Period	0.00	

# 18	03/10 08:00	To 03/10 13:12	5.21	RF-3 crowbar trip [RF]	0.00	0.80
# 19	03/10 14:01	To 03/14 21:05	102.07	RF-4 T/R pressure [RF]	1.09	1.09
# 20	03/14 22:10	To 03/15 07:59	9.82	Int Dump: End of Period	0.00	0.00
# 21	03/16 08:00	To 03/18 10:42	50.71	RF-4 Anode OI [RF]	2.59	2.59
# 22	03/18 13:17	To 03/22 07:59	90.70	Int Dump: End of Period	0.00	0.00
# 23	03/23 08:00	To 03/24 19:23	35.39	S25 EPS H20/Vac [MOM]	1.11	1.11
# 24	03/24 20:30	To 03/29 07:59	107.49	Int Dump: End of Period	0.00	0.00
# 25	03/30 09:32	To 03/31 16:07	30.59	S11 Gespac Failure [PS]	2.50	1.55 S17 magnet water leak [MOM]
# 26	03/31 18:38	To 04/03 16:02	69.41	8ID PSS trip [SI]	1.94	1.94
# 27	04/03 17:59	To 04/05 07:59	38.01	Int Dump: End of Period	0.00	0.00
# 28	04/06 08:00	To 04/07 07:19	23.32	RF-4 Anode OI[RF]	0.87	0.87
# 29	04/07 08:12	To 04/12 07:59	119.80	Int Dump: End of Period	0.00	0.00
# 30	04/13 08:00	To 04/13 12:59	4.99	SRFB instability [AOP]	0.48	0.48
# 31	04/13 13:28	To 04/18 11:14	117.76	S36 RF cav vac [RF]	0.48	0.48
# 32	04/18 11:43	To 04/21 23:59	84.28	Int Dump: End of Period	0.00	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 96.98 %
 Current in Range during Delivered Beam Time 98.88 %
 Injector Availability 98.75 %

Period Beginning 01/26/2021 08:00

Current in Range 99.63 %
 Injector Availability 99.56 %
 Out of Range at: 01/28/2021 00:09:28 to 01/28/2021 00:36:00 : 26.53 minutes
 Injector downtime: 01/28/2021 00:04:32 to 01/28/2021 00:33:44 : 29.20 minutes
 Out of Range at: 01/28/2021 17:14:32 to 01/28/2021 17:19:20 : 4.80 minutes
 Injector downtime: 01/28/2021 17:06:32 to 01/28/2021 17:14:32 : 8.00 minutes (est)

Period Beginning 02/02/2021 08:00

Current in Range 99.42 %
 Injector Availability 99.29 %
 Out of Range at: 02/02/2021 08:00:16 to 02/02/2021 08:31:28 : 31.20 minutes
 Injector downtime: 02/02/2021 07:55:20 to 02/02/2021 08:29:12 : 33.87 minutes
 Out of Range at: 02/03/2021 10:01:20 to 02/03/2021 10:16:08 : 14.80 minutes
 Injector downtime: 02/03/2021 09:56:24 to 02/03/2021 10:16:04 : 19.67 minutes
 Out of Range at: 02/06/2021 17:13:52 to 02/06/2021 17:17:36 : 3.73 minutes
 Injector downtime: 02/06/2021 17:05:52 to 02/06/2021 17:13:52 : 8.00 minutes (est)

Period Beginning 02/09/2021 08:00

Current in Range 100.00 %
 Injector Availability 100.00 %

Period Beginning 02/16/2021 08:00

Current in Range 93.36 %
 Injector Availability 92.80 %
 Out of Range at: 02/16/2021 17:57:44 to 02/16/2021 18:57:36 : 59.87 minutes
 Injector downtime: 02/16/2021 17:52:48 to 02/16/2021 18:57:32 : 64.73 minutes

Out of Range at: 02/16/2021 22:35:20 to 02/16/2021 22:35:28 : 0.13 minutes
Injector downtime: 02/16/2021 22:27:20 to 02/16/2021 22:35:20 : 8.00 minutes (est)
Out of Range at: 02/18/2021 17:55:12 to 02/18/2021 18:05:44 : 10.53 minutes
Injector downtime: 02/18/2021 17:50:16 to 02/18/2021 18:03:28 : 13.20 minutes
Out of Range at: 02/21/2021 04:06:48 to 02/21/2021 04:14:40 : 7.87 minutes
Injector downtime: 02/21/2021 03:58:48 to 02/21/2021 04:06:48 : 8.00 minutes (est)
Out of Range at: 02/21/2021 08:15:44 to 02/21/2021 09:21:12 : 65.47 minutes
Injector downtime: 02/21/2021 08:10:48 to 02/21/2021 09:21:08 : 70.33 minutes
Out of Range at: 02/21/2021 10:37:28 to 02/21/2021 10:40:48 : 3.33 minutes
Injector downtime: 02/21/2021 10:29:28 to 02/21/2021 10:37:28 : 8.00 minutes (est)
Out of Range at: 02/21/2021 10:46:40 to 02/21/2021 11:57:04 : 70.40 minutes
Injector downtime: 02/21/2021 10:41:44 to 02/21/2021 11:57:00 : 75.27 minutes
Out of Range at: 02/21/2021 12:02:40 to 02/21/2021 12:05:12 : 2.53 minutes
Injector downtime: 02/21/2021 11:54:40 to 02/21/2021 12:02:40 : 8.00 minutes (est)
Out of Range at: 02/21/2021 16:00:40 to 02/21/2021 18:16:32 : 135.87 minutes
Injector downtime: 02/21/2021 15:55:44 to 02/21/2021 18:16:28 : 140.73 minutes
Out of Range at: 02/22/2021 01:41:20 to 02/22/2021 04:30:32 : 169.20 minutes
Injector downtime: 02/22/2021 01:36:24 to 02/22/2021 04:29:52 : 173.47 minutes

Period Beginning 03/10/2021 08:00

Current in Range 99.84 %
Injector Availability 99.66 %
Out of Range at: 03/10/2021 14:01:12 to 03/10/2021 14:03:20 : 2.13 minutes
Injector downtime: 03/10/2021 13:53:12 to 03/10/2021 14:01:12 : 8.00 minutes (est)
Out of Range at: 03/14/2021 10:24:08 to 03/14/2021 10:27:12 : 3.07 minutes
Injector downtime: 03/14/2021 10:16:08 to 03/14/2021 10:24:08 : 8.00 minutes (est)
Out of Range at: 03/14/2021 14:24:08 to 03/14/2021 14:30:00 : 5.87 minutes
Injector downtime: 03/14/2021 14:16:08 to 03/14/2021 14:24:08 : 8.00 minutes (est)

Period Beginning 03/16/2021 08:00

Current in Range 98.98 %
Injector Availability 98.74 %
Out of Range at: 03/16/2021 22:05:36 to 03/16/2021 22:17:12 : 11.60 minutes
Injector downtime: 03/16/2021 22:00:40 to 03/16/2021 22:16:08 : 15.47 minutes
Out of Range at: 03/20/2021 11:39:44 to 03/20/2021 11:51:04 : 11.33 minutes
Injector downtime: 03/20/2021 11:34:48 to 03/20/2021 11:51:00 : 16.20 minutes
Out of Range at: 03/20/2021 12:44:56 to 03/20/2021 13:09:04 : 24.13 minutes
Injector downtime: 03/20/2021 12:40:00 to 03/20/2021 13:09:00 : 29.00 minutes
Out of Range at: 03/21/2021 16:36:40 to 03/21/2021 16:36:48 : 0.13 minutes
Injector downtime: 03/21/2021 16:28:40 to 03/21/2021 16:36:40 : 8.00 minutes (est)
Out of Range at: 03/21/2021 16:40:32 to 03/21/2021 17:20:00 : 39.47 minutes
Injector downtime: 03/21/2021 16:40:36 to 03/21/2021 17:18:48 : 38.20 minutes

Period Beginning 03/23/2021 08:00

Current in Range 100.00 %
Injector Availability 100.00 %

Period Beginning 03/30/2021 08:00

Current in Range 97.72 %
Injector Availability 97.64 %
Out of Range at: 03/30/2021 14:55:28 to 03/30/2021 15:10:16 : 14.80 minutes
Injector downtime: 03/30/2021 14:50:32 to 03/30/2021 15:08:08 : 17.60 minutes
Out of Range at: 04/03/2021 10:26:48 to 04/03/2021 13:21:12 : 174.40 minutes
Injector downtime: 04/03/2021 10:21:52 to 04/03/2021 13:20:00 : 178.13 minutes

Period Beginning 04/06/2021 08:00

Current in Range 99.52 %
Injector Availability 99.43 %
Out of Range at: 04/09/2021 23:25:12 to 04/09/2021 23:40:00 : 14.80 minutes
Injector downtime: 04/09/2021 23:20:16 to 04/09/2021 23:37:44 : 17.47 minutes
Out of Range at: 04/12/2021 07:33:36 to 04/12/2021 07:59:52 : 26.27 minutes
Injector downtime: 04/12/2021 07:28:40 to 04/12/2021 07:59:48 : 31.13 minutes

Period Beginning 04/13/2021 08:00

Current in Range	99.67 %
Injector Availability	99.62 %
Out of Range at:	04/13/2021 23:05:04 to 04/13/2021 23:23:44 : 18.67 minutes
Injector downtime:	04/13/2021 23:00:08 to 04/13/2021 23:21:28 : 21.33 minutes
Out of Range at:	04/15/2021 15:24:32 to 04/15/2021 15:46:16 : 21.73 minutes
Injector downtime:	04/15/2021 15:19:36 to 04/15/2021 15:45:20 : 25.73 minutes