

FY 2015 Machine Studies Breakdown

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.1	Training		9/25/2014 13:00	9/25/2014 15:00			2.00	Booster operator training
2014-3.1	Downtime DIN#106240		9/25/2014 16:30	9/25/2014 23:34	7.07			13-ID issue (MD), SR power supplies (PS)
2014-3.1	Training		9/26/2014 16:55	9/26/2014 20:48			3.88	PAR operator training
2014-3.1	Training		9/27/2014 5:37	9/27/2014 7:26			1.82	SR operator training
2014-3.1	Training		9/28/2014 4:25	9/28/2014 5:50			1.42	SR operator training
2014-3.1	Downtime DIN#106241		9/28/2014 15:12	9/28/2014 19:52	4.67			S36 topup monitor (DIA)
2014-3.1	Downtime DIN#106242		9/29/2014 8:51	9/29/2014 10:56	2.08			Switchgear trip limit exceeded (AOP)
2014-3.1	Downtime DIN#106243		9/29/2014 13:00	9/29/2014 15:34	2.57			Booster dipole issues (PS)
2014-3.1	Training		9/30/2014 17:03	9/30/2014 18:30			1.45	PAR operator training
TOTAL					16.38	0.00	10.57	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.2	Machine Intervention		10/7/2014 9:16	10/7/2014 13:10		3.90		maintenance activities, access Linac
2014-3.2	Downtime DIN#106261		10/7/2014 14:55	10/7/2014 15:16	0.35			PAR RF trip (RF)
2014-3.2	Training		10/7/2014 4:56	10/7/2014 6:50			1.90	PAR operator training
TOTAL					0.35	3.90	1.90	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.3	Machine Intervention		10/14/2014 9:19	10/14/2014 12:03		2.73		maintenance activities, access Linac, SR zone A
2014-3.3	Training		10/14/2014 13:54	10/14/2014 14:52			0.97	PAR operator training
2014-3.3	Training		10/15/2014 1:47	10/15/2014 5:12			3.42	Booster operator training
TOTAL					0.00	2.73	4.38	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.5	Downtime DIN#106264		10/20/2014 8:06	10/20/2014 8:21	0.25			PTB:B1 issue (PS)
2014-3.4	Machine Intervention		10/20/2014 9:30	10/20/2014 13:18		3.80		maintenance activities, access Linac
2014-3.4	Downtime DIN#106265		10/21/2014 8:38	10/21/2014 11:16	2.63			L5 vacuum controller issue (MOM)
2014-3.4	Training		10/21/2014 12:29	10/21/2014 13:07			0.63	PAR operator training
2014-3.4	Downtime DIN#106266		10/21/2014 12:05	10/21/2014 22:25	10.33			RF cavity blower (MOM), SR PS (PS), IT issues (IT)
TOTAL					13.22	3.80	0.63	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.5	Machine Intervention		10/28/2014 9:05	10/28/2014 13:40		4.58		maintenance activities, access Linac, SR zone F
2014-3.5	Training		10/28/2014 4:55	10/28/2014 6:33			1.63	SR operator training
TOTAL					0.00	4.58	1.63	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.6	Machine Intervention		11/4/2014 9:15	11/4/2014 11:27		2.20		maintenance activities, access Linac, PAR
2014-3.6	Training		11/4/2014 11:27	11/4/2014 12:58			1.52	SR operator training

TOTAL						0.00	2.20	1.52	
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Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.7	Machine Intervention		11/11/2014 9:28	11/11/2014 12:10		2.70		maintenance activities, access SR zone D
2014-3.7	Downtime DIN#106276		11/11/2014 12:10	11/11/2014 13:35	1.42			SR power supplies issue (PS)
2014-3.7	Training		11/12/2014 1:00	11/12/2014 3:00			2.00	PAR operator training
2014-3.7	Downtime DIN#106277		11/12/2014 6:17	11/12/2014 6:40	0.38			SR power supply issue (PS)
TOTAL					1.80	2.70	2.00	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.8	Machine Intervention		11/18/2014 8:20	11/18/2014 13:34		5.23		maintenance activities, access Linac, PAR
2014-3.8	Downtime DIN#106279		11/18/2014 13:34	11/18/2014 15:35	2.02			S27 MPS trip due to vacuum event (MOM)
2014-3.8	Training		11/18/2014 12:33	11/18/2014 13:43			1.17	PAR operator training
2014-3.8	Training		11/19/2014 3:47	11/19/2014 6:56			3.15	Booster operator training
TOTAL					2.02	5.23	4.32	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.9	Training		11/27/2014 9:22	11/27/2014 11:30			2.13	PAR operator training
2014-3.9	Downtime DIN#106283		11/27/2014 21:51	11/28/2014 1:42	3.85			PAR and SR PS issues (PS)
TOTAL					3.85	0.00	2.13	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.10	Machine Intervention		12/2/2014 9:20	12/2/2014 14:09		4.82		maintenance activities, access Linac, SR zone A
2014-3.10	Training		12/3/2014 0:17	12/3/2014 1:03			0.77	SR operator training
TOTAL					0.00	4.82	0.77	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2014-3.11	Machine Intervention		12/9/2014 8:09	12/9/2014 12:13		4.07		maintenance activities, access Linac, SR zone A
2014-3.11	Training		12/9/2014 12:13	12/9/2014 13:46			1.55	SR operator training
2014-3.11	Training		12/9/2014 18:00	12/9/2014 20:00			2.00	Booster operator training
TOTAL					0.00	4.07	3.55	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.1	Training		1/28/2015 4:01	1/28/2015 6:25			2.40	Booster operator training
2015-1.1	Training		1/28/2015 8:00	1/28/2015 10:00			2.00	SR operator training
2015-1.1	Machine Intervention		1/29/2015 7:27	1/29/2015 12:06		4.65		maintenance activities, access Linac, SR zone A, E & F
2015-1.1	Training		1/30/2015 4:00	1/30/2015 6:13			2.22	Linac operator training
2015-1.1	Machine Intervention		1/30/2015 10:45	1/30/2015 17:00		6.25		maintenance activities, access Linac, SR zone A
2015-1.1	Downtime DIN#106285		1/30/2015 17:00	1/30/2015 17:25	0.42			RG2 kicker issue (PS)
2015-1.1	Training		1/31/2015 21:00	1/31/2015 23:00			2.00	SR operator training (11-23)
2015-1.1	Downtime DIN#106286		2/2/2015 18:25	2/2/2015 18:47	0.37			SR quadrupole fault (PS)
2015-1.1	Downtime DIN#106287		2/3/2015 6:20	2/3/2015 16:25	10.08			RG2 kicker thyratron failure (PS)
TOTAL					10.87	10.90	8.62	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.2	Machine Intervention	2/10/2015 10:25	2/10/2015 16:00		5.58		maintenance activities, access SR zone E
2015-1.2	Training	2/11/2015 6:01	2/11/2015 6:54			0.88	SR operator training
TOTAL				0.00	5.58	0.88	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.3	Machine Intervention	2/17/2015 9:27	2/17/2015 13:27		4.00		maintenance activities, access SR zone A
2015-1.3	Downtime DIN#106293	2/17/2015 13:27	2/17/2015 15:40	2.22			RF5 trip due to klystron air flow (MOM)
TOTAL				2.22	4.00	0.00	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.4	Machine Intervention	2/24/2015 9:12	2/24/2015 14:02		4.83		maintenance activities, access Linac, SR zone B
2015-1.4	Training	2/24/2015 20:00	2/24/2015 22:00			2.00	Booster operator training (15-23)
2015-1.4	Downtime DIN#106298	2/25/2015 6:27	2/25/2015 7:26	0.98			SR quadrupole fault (PS)
TOTAL				0.98	4.83	2.00	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.5	Machine Intervention	3/2/2015 9:27	3/2/2015 16:12		6.75		maintenance activities, access Linac, SR zone E
2015-1.5	Training	3/2/2015 23:11	3/3/2015 1:53			2.70	Booster operator training
2015-1.5	Training	3/4/2015 1:32	3/4/2015 3:47			2.25	Booster operator training
TOTAL				0.00	6.75	4.95	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.6	Machine Intervention	3/10/2015 9:33	3/10/2015 13:14		3.68		maintenance activities, access Linac, SR zone F
2015-1.6	Training	3/10/2015 13:30	3/10/2015 14:19			0.82	Booster operator training
2015-1.6	Training	3/11/2015 1:15	3/11/2015 2:30			1.25	Linac operator training
TOTAL				0.00	3.68	2.07	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.7	Machine Intervention	3/17/2015 9:46	3/17/2015 12:20		2.57		maintenance activities
2015-1.7	Downtime DIN#106308	3/18/2015 0:20	3/18/2015 8:00	7.67			RG2 kicker failure and repairs (PS)
TOTAL				7.67	2.57	0.00	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.8	Machine Intervention	3/24/2015 9:10	3/24/2015 14:19		5.15		maintenance activities, access Linac / PAR
2015-1.8	Training	3/24/2015 13:30	3/24/2015 15:00			1.50	Linac operator training (07-15)
TOTAL				0.00	5.15	1.50	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.9	Machine Intervention	3/31/2015 9:47	3/31/2015 12:10		2.38		maintenance activities
2015-1.9	Training	3/31/2015 20:04	3/31/2015 22:53			2.82	SR operator training
2015-1.9	Training	4/1/2015 7:00	4/1/2015 8:00			1.00	SR operator training, - 13 steerings from 07:00 to 15:00
TOTAL				0.00	2.38	3.82	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.10	Machine Intervention		4/7/2015 9:55	4/7/2015 14:30		4.58		maintenance activities, access Linac / PAR & Booster
2015-1.10	Downtime DIN#106319		4/7/2015 14:30	4/7/2015 15:53	1.38			Booster switchgear rack-in issue (FMS)
TOTAL					1.38	4.58	0.00	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.11	Downtime DIN#106321		4/14/2015 8:12	4/14/2015 10:38	2.43			26-ID gap encoder fault (MD)
2015-1.11	Machine Intervention		4/14/2015 10:38	4/14/2015 11:07		0.48		maintenance activities
2015-1.11	Downtime DIN#106322		4/14/2015 11:07	4/14/2015 14:38	3.52			26-ID gap encoder fault (MD) --> access SR zone D
2015-1.11	Training		4/14/2015 21:30	4/14/2015 22:51			1.35	SR operator training
2015-1.11	Training		4/15/2015 1:05	4/15/2015 3:19			2.23	Linac operator training
TOTAL					5.95	0.48	3.58	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-1.12	Machine Intervention		4/21/2015 9:32	4/21/2015 11:24		1.87		maintenance activities, access Linac / PAR
2015-1.12	Training		4/21/2015 9:58	4/21/2015 12:57			2.98	Linac operator training
2015-1.12	Training		4/21/2015 12:57	4/21/2015 14:56			1.98	SR operator training
2015-1.12	Training		4/22/2015 3:48	4/22/2015 6:04			2.27	SR operator training
TOTAL					0.00	1.87	7.23	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.1	Downtime DIN#106330		5/21/2015 10:26	5/21/2015 12:29	2.05			SR water temperature issue (MOM)
2015-2.1	Downtime DIN#106331		5/22/2015 8:07	5/22/2015 9:20	1.22			IOCRFTIME issue (CTL)
2015-2.1	Training		5/26/2015 3:30	5/26/2015 5:34			2.07	Linac operator training
2015-2.1	Machine Intervention		5/26/2015 7:38	5/26/2015 10:29		2.85		maintenance activities, access SR zone A, Linac / PAR
2015-2.1	Training		5/26/2015 20:13	5/26/2015 22:22			2.15	SR operator training
2015-2.1	Training		5/27/2015 2:11	5/27/2015 3:30			1.32	Linac operator training
2015-2.1	Training		5/30/2015 0:30	5/30/2015 1:58			1.47	SR operator training
2015-2.1	Training		5/31/2015 8:00	5/31/2015 9:48			1.80	SR operator training
2015-2.1	Training		6/1/2015 5:03	6/1/2015 6:04			1.02	SR operator training
TOTAL					3.27	2.85	9.82	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.2	Machine Intervention		6/9/2015 9:37	6/9/2015 12:09		2.53		maintenance activities, access SR zone A
TOTAL					0.00	2.53	0.00	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.3	Machine Intervention		6/16/2015 9:26	6/16/2015 12:56		3.50		maintenance activities, access Linac/PAR & SR zone F
2015-2.3	Training		6/16/2015 12:56	6/16/2015 14:56			2.00	SR operator training
TOTAL					0.00	3.50	2.00	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.4	Machine Intervention		6/23/2015 9:40	6/23/2015 10:15		0.58		maintenance activities, access Booster
2015-2.4	Downtime DIN#106335		6/23/2015 10:15	6/23/2015 13:08	2.88			Water leak in the Booster (MOM)

2015-2.4	Downtime DIN#106336		6/23/2015 20:29	6/23/2015 21:17	0.80				IOCRFTIME reboot (CTL)
TOTAL					3.68	0.58	0.00		

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.5	Training		7/3/2015 23:12	7/4/2015 0:06			0.90	SR operator training
2015-2.5	Training		7/5/2015 0:59	7/5/2015 1:53			0.90	SR operator training
2015-2.5	Training		7/6/2015 5:04	7/6/2015 6:41			1.62	SR operator training
2015-2.5	Machine Intervention		7/6/2015 7:30	7/6/2015 10:00		2.50		maintenance activities, access Linac/PAR & SR zone F
2015-2.5	Training		7/7/2015 1:13	7/7/2015 2:40			1.45	SR operator training
TOTAL					0.00	2.50	4.87	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.6	Machine Intervention		7/14/2015 9:25	7/14/2015 10:49		1.40		maintenance activities
2015-2.6	Training		7/14/2015 10:49	7/14/2015 12:27			1.63	SR operator console test (Omar Frausto)
TOTAL					0.00	1.40	1.63	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.7	Machine Intervention		7/21/2015 9:26	7/21/2015 12:40		3.23		maintenance activities
TOTAL					0.00	3.23	0.00	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.8	Machine Intervention		7/28/2015 9:23	7/28/2015 11:50		2.45		maintenance activities, access Booster
2015-2.8	Downtime DIN#106350		7/28/2015 4:35	7/28/2015 7:29	2.90			L5:QM2 trip (PS)
TOTAL					2.90	2.45	0.00	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.9	Machine Intervention		8/4/2015 9:28	8/4/2015 12:00		2.53		maintenance activities, access Booster
2015-2.9	Downtime DIN#106351		8/4/2015 12:00	8/4/2015 14:30	2.50			PTB:B1 fault (PS)
TOTAL					2.50	2.53	0.00	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.10	Machine Intervention		8/11/2015 9:30	8/11/2015 12:15		2.75		maintenance activities, access Booster
TOTAL					0.00	2.75	0.00	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.11	Machine Intervention		8/18/2015 9:34	8/18/2015 14:10		4.60		maintenance activities, access Linac
2015-2.11	Downtime DIN#106357		8/18/2015 19:27	8/18/2015 19:58	0.52			Tornado warning (OTH)
2015-2.11	Downtime DIN#106358		8/18/2015 20:08	8/18/2015 20:37	0.48			Tornado warning (OTH)
TOTAL					1.00	4.60	0.00	

Studies Period			Start Time	Stop Time	Downtime	Machine Intervention	Training	
2015-2.12	Machine Intervention		8/18/2015 9:34	8/18/2015 14:10		4.60		maintenance activities, access Linac
TOTAL					0.00	4.60	0.00	