

FY 2019 Machine Studies Breakdown

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.1	Downtime DIN#106882	9/26/2018 16:42	9/26/2018 17:24	0.70			Booster RF-5 trip (RF)
2018-3.1	Downtime DIN#106883	9/26/2018 18:42	9/26/2018 21:08	2.43			S32:33:R3 trip on Water/Ground fault (PS)
2018-3.1	Downtime DIN#106884	9/26/2018 21:59	9/27/2018 9:26	11.45			Access zone E to fix magnet temperature sensor shorted (MOM)
2018-3.1	Downtime DIN#106885	9/27/2018 12:07	9/27/2018 14:42	2.58			S18A:S2 trip, S32A:V3 DAC card (PS)
2018-3.1	Downtime DIN#106886	9/29/2018 5:05	9/29/2018 8:11	3.10			IOCMTIME issue (CTL)
2018-3.1	Downtime DIN#106887	10/1/2018 12:00	10/1/2018 12:50	0.83			PS issues after Booster & Zone F access (PS)
2018-3.1	Machine Intervention	9/28/2018 9:56	9/28/2018 12:27		2.52		Access SR Zone D to repair S28 diagnostics
2018-3.1	Machine Intervention	10/1/2018 8:19	10/1/2018 10:55		2.60		Access SR zone F to repair the blower for S36 Cavity #1
TOTAL				21.10	5.12	0.00	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.2	Machine Intervention	10/8/2018 8:52	10/8/2018 11:30		2.63		Maintenance activities
2018-3.2	Downtime DIN#106895	10/8/2018 11:30	10/8/2018 12:26	0.93			Work on the load for RF2/3 (RF)
2018-3.2	Training	10/8/2018 21:51	10/8/2018 22:58			1.12	Booster operator training
TOTAL				0.93	2.63	1.12	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.3	Machine Intervention	10/15/2018 9:10	10/15/2018 13:22		4.20		Maintenance activities, access SR zone F to replace blower
TOTAL				0.00	4.20	0.00	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.4	Machine Intervention	10/22/2018 9:07	10/22/2018 13:30		4.38		Maintenance activities, access SR zone A for a tour
TOTAL				0.00	4.38	0.00	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.5	Machine Intervention	10/29/2018 8:58	10/29/2018 12:26		3.47		Maintenance activities
2018-3.5	Training	10/29/2018 12:26	10/29/2018 14:29			2.05	PAR operator training
2018-3.5	Training	10/30/2018 7:10	10/30/2018 8:58			1.80	PAR console test
2018-3.5	Downtime DIN#106895	10/31/2018 5:29	10/31/2018 6:16	0.78			SJS1 issue (PS)
TOTAL				0.78	3.47	3.85	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.6	Machine Intervention	11/5/2018 9:31	11/5/2018 14:30		4.98		Maintenance activities
2018-3.6	Training	11/5/2018 16:49	11/5/2018 17:21			0.53	PAR operator training
TOTAL				0.00	4.98	0.53	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.7	Machine Intervention	11/12/2018 8:52	11/12/2018 14:30		5.63		Maintenance activities, access SR zone D & F
2018-3.7	Training	11/12/2018 16:00	11/12/2018 17:59			1.98	Booster operator training
2018-3.7	Training	11/13/2018 4:59	11/13/2018 6:31			1.53	PAR operator training
2018-3.7	Downtime DIN#106919	11/13/2018 4:31	11/13/2018 6:04	1.55			SJS1 power supply issue (PS)
TOTAL				1.55	5.63	3.52	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.8	Machine Intervention	11/21/2018 9:11	11/21/2018 14:32		5.35		Maintenance activities
2018-3.8	Training	11/21/2018 15:38	11/21/2018 17:16			1.63	Linac operator training
2018-3.8	Training	11/22/2018 3:02	11/22/2018 5:47			2.75	SR operator training
2018-3.8	Training	11/22/2019 16:44	11/22/2019 18:41			1.95	PAR operator training
2018-3.8	Training	11/23/2019 4:00	11/23/2019 6:00			2.00	Booster operator training
TOTAL				0.00	5.35	8.33	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.9	Machine Intervention	12/3/2018 8:55	12/3/2018 12:32		3.62		Maintenance activities, access SR zone F
2018-3.9	Training	12/4/2018 1:29	12/4/2018 2:24			0.92	Linac operator training
2018-3.9	Downtime DIN#106932	12/4/2018 6:24	12/4/2018 7:27	1.05			S:28A:S2 converter trip and swap (PS)
TOTAL				1.05	3.62	0.92	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.10	Machine Intervention	12/10/2018 8:08	12/10/2018 10:39		2.52		Maintenance activities, access SR zone E
2018-3.10	Downtime DIN#106938	12/10/2018 10:39	12/10/2018 14:02	3.38			33-ID safety shutter investigation (SI)
2018-3.10	Training	12/10/2018 17:00	12/10/2018 19:00			2.00	PAR operator training
2018-3.10	Downtime DIN#106938	12/11/2018 1:14	12/11/2018 7:04	5.83			issue with server Oxygen (IT)
TOTAL				9.22	2.52	2.00	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2018-3.11	Machine Intervention	12/17/2018 8:20	12/17/2018 11:00		2.67		Maintenance activities
2018-3.11	Downtime DIN#106946	12/17/2018 11:00	12/17/2018 16:00	5.00			Injector timing issue (CTL)
TOTAL				5.00	2.67	0.00	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.1	Downtime DIN#106947	1/24/2019 14:22	1/24/2019 17:51	3.48			RF5 trip, waveguide switch to RF3/5 (Building)
2019-1.1	Downtime DIN#106948	1/25/2019 8:40	1/25/2019 23:11	14.52			Bent lead on S34B:Q4 in the tunnel (MOM)
TOTAL				18.00	0.00	0.00	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.2	Machine Intervention	2/4/2019 8:52	2/4/2019 12:00			3.13	Maintenance activities
2019-1.2	Downtime DIN#106957	2/4/2019 12:00	2/4/2019 13:07	1.12			Booster power supply ramp issue (AOP)
2019-1.2	Training	2/4/2019 12:05	2/4/2019 14:25			2.33	Linac operator training
2019-1.2	Training	2/4/2019 18:00	2/4/2019 20:00			2.00	Linac operator training
TOTAL				1.12	3.13	4.33	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.3	Machine Intervention	2/11/2019 9:26	2/11/2019 11:30			2.07	Maintenance activities, access SR zone F
2019-1.3	Downtime DIN#106963	2/11/2019 11:30	2/11/2019 11:55	0.42			S38 cavity 3 IR sensor issue (MOM)
2019-1.3	Downtime DIN#106964	2/11/2019 12:30	2/11/2019 13:10	0.67			LTP:Q7 power supply issue (PS)
2019-1.3	Downtime DIN#106965	2/11/2019 13:55	2/11/2019 14:20	0.42			SR RF-2 (RF)
2019-1.2	Training	2/11/2019 0:12	2/11/2019 1:47			1.58	Linac operator training
TOTAL				1.50	2.07	1.58	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.4	Machine Intervention	2/18/2019 9:02	2/18/2019 12:02			3.00	Maintenance activities, access PAR
TOTAL				0.00	3.00	0.00	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.5	Machine Intervention	2/25/2019 8:50	2/25/2019 14:00			5.17	Maintenance activities, access PAR
2019-1.5	Training	2/25/2019 10:00	2/25/2019 12:00			2.00	Linac operator training
2019-1.5	Downtime DIN#106970	2/25/2019 14:00	2/25/2019 14:43	0.72			SR RF-2 trip (OTHER)
2019-1.5	Training	2/25/2019 21:17	2/25/2019 22:53			1.60	SR operator training
2019-1.5	Training	2/26/2019 5:06	2/26/2019 6:22			1.27	Linac operator testing
TOTAL				0.72	5.17	4.87	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.6	Machine Intervention	3/4/2019 8:48	3/4/2019 12:52			4.07	Maintenance activities, access SR zone A for inspection
2019-1.6	Training	3/4/2019 8:15	3/4/2019 9:00			0.75	PAR operator testing
2019-1.6	Training	3/4/2019 10:32	3/4/2019 11:22			0.83	PAR operator testing
2019-1.6	Training	3/4/2019 23:09	3/5/2019 1:01			1.87	SR operator testing
TOTAL				0.00	4.07	3.45	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.7	Training	3/11/2019 19:00	3/11/2019 20:30			1.50	Linac/PAR operator training
2019-1.7	Downtime DIN#106977	3/11/2019 22:10	3/11/2019 23:03	0.88			SR RF-2 trip (RF)
2019-1.7	Training	3/12/2019 7:15	3/12/2019 9:00			1.75	PAR operator training
2019-1.7	Training	3/12/2019 12:06	3/12/2019 14:29			2.38	SR operator training
2019-1.7	Downtime DIN#106978	3/12/2019 13:00	3/12/2019 16:15	3.25			RF-5 failure (RF)
2019-1.7	Downtime DIN#106979	3/12/2019 16:15	3/12/2019 17:41	1.43			S16C:BM issue (PS)
TOTAL				5.57	0.00	5.63	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.8	Machine Intervention	3/18/2019 8:50	3/18/2019 11:50			3.00	Maintenance activities, access SR zone D & F
2019-1.8	Training	3/18/2019 8:00	3/18/2019 10:00			2.00	SR operator training
2019-1.8	Training	3/19/2019 5:00	3/19/2019 6:43			1.72	Linac operator testing
TOTAL				0.00	3.00	3.72	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.9	Machine Intervention	3/25/2019 8:47	3/25/2019 12:12			3.42	Maintenance activities, access SR zone A
2019-1.9	Training	3/25/2019 11:43	3/25/2019 13:45			2.03	PAR operator training
2019-1.9	Training	3/25/2019 18:07	3/25/2019 19:57			1.83	PAR operator training
TOTAL				0.00	3.42	3.87	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.10	Machine Intervention	4/1/2019 8:47	4/1/2019 12:00			3.22	Maintenance activities, access SR zone A
2019-1.10	Downtime DIN#106997	4/1/2019 12:00	4/1/2019 13:13	1.22			Linac water pump issue (MOM)
2019-1.10	Training	4/1/2019 15:30	4/1/2019 16:50			1.33	PAR operator training
2019-1.10	Training	4/2/2019 3:03	4/2/2019 5:38			2.58	PAR operator training
TOTAL				1.22	3.22	3.92	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.11	Machine Intervention	4/8/2019 9:01	4/8/2019 12:50			3.82	Maintenance activities, access Booster
2019-1.11	Training	4/8/2019 12:37	4/8/2019 14:35			1.97	PAR operator training
2019-1.11	Downtime DIN#107003	4/8/2019 17:57	4/8/2019 19:55	1.97			B:BM trip (PS)
TOTAL				1.97	3.82	1.97	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-1.12	Machine Intervention	4/15/2019 8:45	4/15/2019 16:25			7.67	Maintenance activities, access PAR, SR zone A & E
2019-1.12	Training	4/15/2019 18:17	4/15/2019 19:54			1.62	PAR operator training
TOTAL				0.00	7.67	1.62	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.1	Training	5/21/2019 3:00	5/21/2019 4:46			1.77	PAR operator training
2019-2.1	Training	5/26/2019 4:40	5/26/2019 7:53			3.22	PAR operator training
2019-2.1	Training	5/27/2019 9:00	5/27/2019 10:50			1.83	SR operator training
2019-2.1	Training	5/27/2019 23:38	5/28/2019 3:50			4.20	PAR operator training
2019-2.1	Training	5/29/2019 2:20	5/29/2019 5:38			3.30	PAR operator training
TOTAL				0.00	0.00	14.32	

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.2	Machine Intervention	6/3/2019 9:00	6/3/2019 18:25			9.42	Maintenance activities, access SR zone B
TOTAL				0.00		9.42	0.00

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.3	Machine Intervention	6/10/2019 8:56	6/10/2019 11:46			2.83	Maintenance activities, access SR zone F
2019-2.3	Training	6/10/2019 21:35	6/10/2019 23:00			1.42	SR operator training
2019-2.3	Training	6/10/2019 23:58	6/11/2019 2:18			2.33	PAR operator training
TOTAL				0.00		2.83	3.75

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.4	Machine Intervention	6/17/2019 8:52	6/17/2019 11:41			2.82	Maintenance activities
2019-2.4	Training	6/17/2019 14:00	6/17/2019 15:14			1.23	PAR console test
2019-2.4	Downtime DIN#107030	6/17/2019 18:00	6/17/2019 18:40	0.67			RF-4 issue, waveguide switch to RF1 and RF2 providing (RF)
2019-2.4	Training	6/18/2019 6:03	6/18/2019 7:00			0.95	SR operator training
TOTAL				0.67		2.82	2.18

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.5	Machine Intervention	6/24/2019 9:06	6/24/2019 11:59			2.88	Maintenance activities, access SR zone F
2019-2.5	Training	6/24/2019 12:43	6/24/2019 13:23			0.67	SR operator training
2019-2.5	Downtime DIN#107038	6/24/2019 19:30	6/24/2019 20:25	0.92			PAR harmonic RF trip (RF)
TOTAL				0.92		2.88	0.67

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.6	Machine Intervention	7/3/2019 9:05	7/3/2019 12:50			3.75	Maintenance activities, access SR zone C
2019-2.6	Training	7/3/2019 9:34	7/3/2019 10:24			0.83	PAR operator training
2019-2.6	Training	7/3/2019 11:41	7/3/2019 13:46			2.08	SR operator training
2019-2.6	Training	7/4/2019 3:58	7/4/2019 5:55			1.95	PAR operator training
2019-2.6	Training	7/4/2019 18:00	7/4/2019 20:05			2.08	PAR operator training
2019-2.6	Training	7/5/2019 2:05	7/5/2019 3:42			1.62	PAR operator training
TOTAL				0.00		3.75	8.57

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.7	Machine Intervention	7/15/2019 9:19	7/15/2019 12:51			3.53	Maintenance activities, access SR zone F
2019-2.7	Training	7/15/2019 23:30	7/16/2019 1:30			2.00	PAR operator training
2019-2.7	Training	7/16/2019 16:00	7/16/2019 16:54			0.90	SR operator training
2019-2.7	Downtime DIN#107049	7/16/2019 16:54	7/16/2019 17:14	0.33			Controls related issue when slowly dumping SR beam (CTL)
2019-2.7	Training	7/16/2019 17:14	7/16/2019 18:00			0.77	SR operator training
TOTAL				0.33		3.53	3.67

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.8	Machine Intervention	7/22/2019 9:17	7/22/2019 14:10			4.88	Maintenance activities, access Linac/PAR, Booster, SR zone A & E
2019-2.8	Training	7/22/2019 14:10	7/22/2019 14:52			0.70	PAR operator training
2019-2.8	Training	7/22/2019 5:00	7/22/2019 7:00			2.00	SR operator training
TOTAL				0.00		4.88	2.70

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.9	Machine Intervention	7/29/2019 8:51	7/29/2019 12:30			3.65	Maintenance activities, access Booster
2019-2.9	Downtime DIN#107064	7/30/2019 6:30	7/30/2019 7:36	1.10			SR power supply S40B-S2 issue (PS)
TOTAL				1.10		3.65	0.00

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.10	Machine Intervention	8/5/2019 9:36	8/5/2019 12:53			3.28	Maintenance activities
2019-2.10	Training	8/5/2019 13:22	8/5/2019 15:00			1.63	SR operator training
2019-2.10	Downtime DIN#107069	8/6/2019 3:20	8/6/2019 5:19	1.98			SR power supply S17A-Q4 issue (PS)
TOTAL				1.98		3.28	1.63

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.11	Machine Intervention	8/12/2019 9:22	8/12/2019 12:58			3.60	Maintenance activities, access SR zone F
2019-2.11	Training	8/12/2019 12:58	8/12/2019 13:52			0.90	PAR operator training
2019-2.11	Downtime DIN#107075	8/12/2019 14:00	8/12/2019 14:36	0.60			RF-4 Pantak cable repair
TOTAL				0.60		3.60	0.90

Studies Period		Start Time	Stop Time	Downtime	Machine Intervention	Training	
2019-2.12	Training	8/21/2019 2:45	8/21/2019 4:40			1.92	PAR/Booster operator training
2019-2.12	Training	8/21/2019 7:56	8/21/2019 9:03			1.12	PAR console test
2019-2.12	Downtime DIN#107086	8/21/2019 10:04	8/21/2019 11:07	1.05			L5 trip on Arc detector (RF) and its recovery issue (CTL)
2019-2.12	Training	8/21/2019 15:23	8/21/2019 15:54			0.52	Linac operator training
2019-2.12	Training	8/21/2019 20:10	8/21/2019 21:53			1.72	Linac operator training
TOTAL				1.05	0.00	5.27	